



Archaeological trial trench and test pit evaluation for the A5-M1 Link Road, Bedfordshire May 2014–January 2015

Report No. 15/131

Author: Jim Brown

Illustrator: James Ladocha



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Project Manager: Jim Brown
Site Code: LTNMG 1093
NGR: route between SP 9959 2435 and TL 0383 2587

MOLA
Bolton House
Wootton Hall Park
Northampton
NN4 8BN 01604 700 493
www.mola.org.uk
sparry@mola.org.uk

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Author: Jim Brown

Illustrator: James Ladocha

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MOLA
Bolton House
Wootton Hall Park
Northampton
NN4 8BN
01604 700 493
www.mola.org.uk
business@mola.org.uk

STAFF

Project Manager	Jim Brown BSc PGDip MCIfA
Fieldwork	Jim Brown, Jason Clarke BSc MA ACIfA Christopher Jones, Anne Foard-Colby Cert Ed David Haynes, Piotr Kieca MA Gemma Hewitt BA, Laura Cogley BA
Text	Jim Brown
Illustration	James Ladocha
Worked flint	Yvonne Wolfram-Murray BSc PhD
Late Iron Age and early Roman pottery	Andy Chapman BSc MCIfA FSA
Quern	Andy Chapman
Anglo-Saxon pottery	Andy Chapman
Medieval pottery	Paul Blinkhorn BTech and Andy Chapman
Building materials	Pat Chapman BA CMS ACIfA
Loomweight and iron hammer	Tora Hylton
Faunal remains	Adam Reid BSc MSc

OASIS REPORT FORM

PROJECT DETAILS		molanort1 - 219418
Project name	Archaeological trial trench and test pit evaluation for the A5-M1 Link Road, Bedfordshire, May 2014–January 2015	
<p>Archaeological trial trench evaluation for the A5-M1 Link Road began in May 2014 and concluded in January 2015. MOLA was commissioned to undertake the work by Costain-Carillion Joint Venture (CCJV) on behalf of the Highways Agency. The work identified two main concentrations of archaeological remains in the vicinity of the future M1 Junction 11a. Along the road corridor there were undated ditches to the north of Ouzel Brook, at Grove Farm and at Thorn Farm.</p> <p>Late Iron Age and Roman agricultural activity in the form of enclosure boundaries lay to either side of the M1 motorway, which may have been part of a contemporary ancient landscape that was fragmented by the motorway development, built 1958-1959. A large Roman quarry pit may also indicate small scale extraction.</p> <p>Anglo-Saxon finds were recovered on the west side of the motorway, on the fringes of Chalton, comprising a loomweight and pottery. Later remains of the 12th century were also found nearby, thought to form part of an outlying settlement fronting onto the road from the village. Two existing enclosures appeared to form a small village end, occupied by properties, with medieval remains in the field adjacent.</p>		
Project type	trial trench evaluation	
Site status	none	
Previous work	desk-based assessment & walkover survey (HA 2006a-b), geophysical survey (NA 2008b), trial trench evaluation (NA 2008d), interim trial trench report (Brown 2014), summary statement (Brown 2015)	
Current Land use	agricultural, mixed pasture and arable	
Future work	possible open area excavations and watching brief	
Monument type/period	Iron Age, Roman, Saxon and late medieval/post-medieval	
Significant finds	pottery, animal bone, worked flint, building materials, metal objects	
PROJECT LOCATION		
County	Central Bedfordshire	
Site address	Chalton and Houghton Regis	
Study area	c4.5km long road corridor	
OS Easting and Northing	route between SP 9959 2435 and TL 0383 2587	
Height aOD	c100-135m above Ordnance Datum	
PROJECT CREATORS		
Organisation	MOLA Northampton	
Project brief originators	Martin Oake, Central Bedfordshire Council	
Project Design originator	Andrew Copp, AECOM	
Director/Supervisor	Jason Clarke, Christopher Jones & Gemma Hewitt, MOLA	
Project Manager	Jim Brown, MOLA	
Sponsor or funding body	Costain-Carillion Joint Venture for Highways Agency	
PROJECT DATE		
Start date	May 2014	
End date	January 2015	
ARCHIVES	Location	Content
Physical	Luton Culture LTNMG 1093 A	pottery, animal bone, worked flint, building materials, metal finds
Paper		background documentation, research notes, site trench record, context record, photographic record, supporting registers etc.
Digital		client report PDF, digital photographs
BIBLIOGRAPHY	Journal/monograph, published or forthcoming, or unpublished client report (NA report)	
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Archaeological trial trench and test pit evaluation for the A5-M1 Link Road, Bedfordshire May 2014–January 2015

Abstract

Archaeological trial trench evaluation for the A5-M1 Link Road began in May 2014 and concluded in January 2015. MOLA was commissioned to undertake the work by Costain-Carillion Joint Venture (CCJV) on behalf of the Highways Agency. The work identified two main concentrations of archaeological remains in the vicinity of the future M1 Junction 11a. Along the road corridor there were undated ditches to the north of Ouzel Brook, at Grove Farm and at Thorn Farm.

Undated, probably prehistoric, ditches were identified in a single trench to the north of Ouzel Brook at Ch3670-3970. Other undated ditches were also found to the south of Grove Farm, although these did not extend to the east where a low level scatter of worked flint lay within ploughsoil. A single undated ditch was found beside the M1 motorway. Several ditches were found to the north of Thorn Farm, although owing to flooding it was not possible to complete their investigation.

Late Iron Age and Roman agricultural activity in the form of enclosure boundaries lay to either side of the M1 motorway, which may have been part of a contemporary ancient landscape that was fragmented by the motorway development, built 1958-1959. A large Roman quarry pit may also indicate small scale extraction.

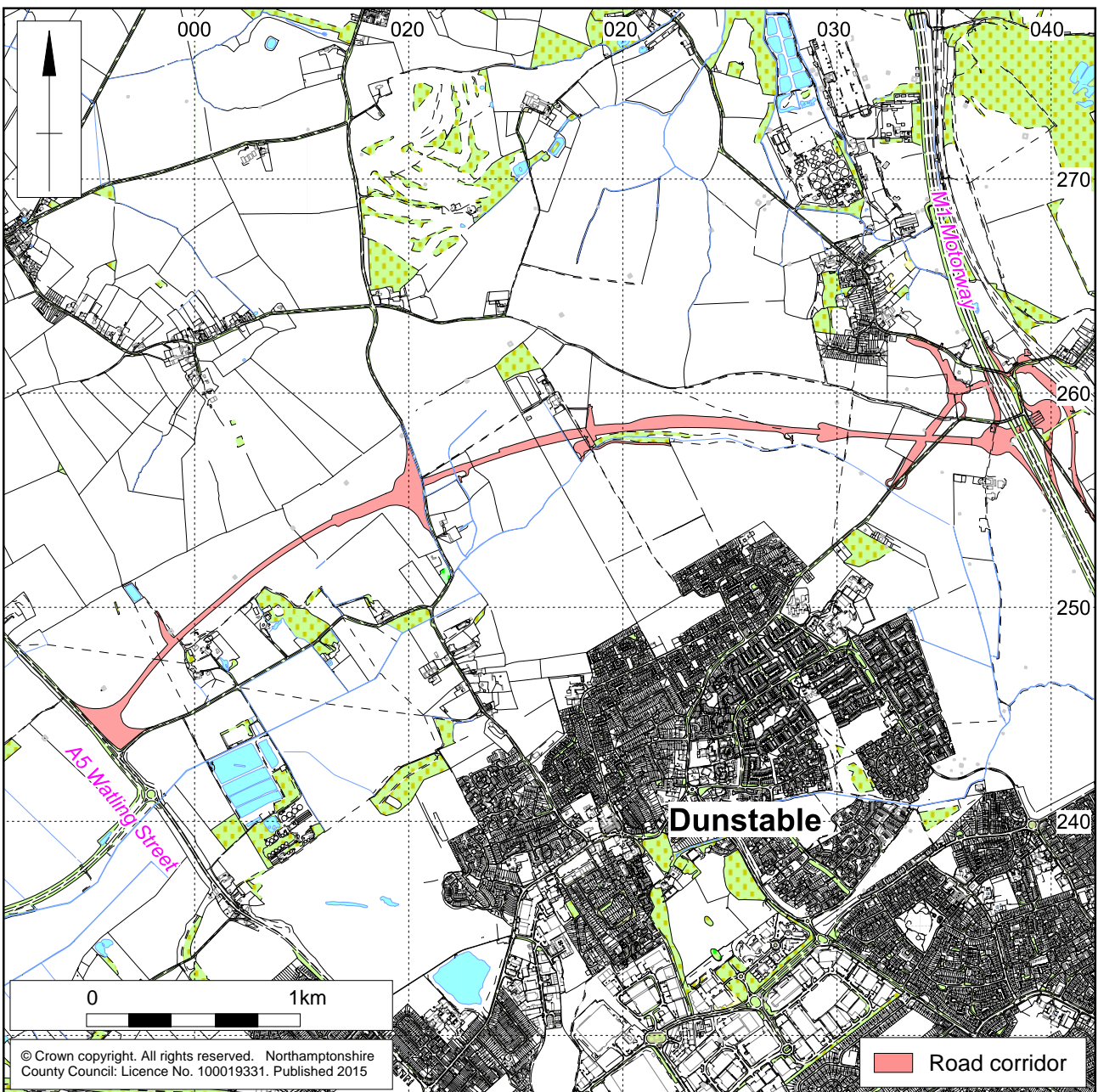
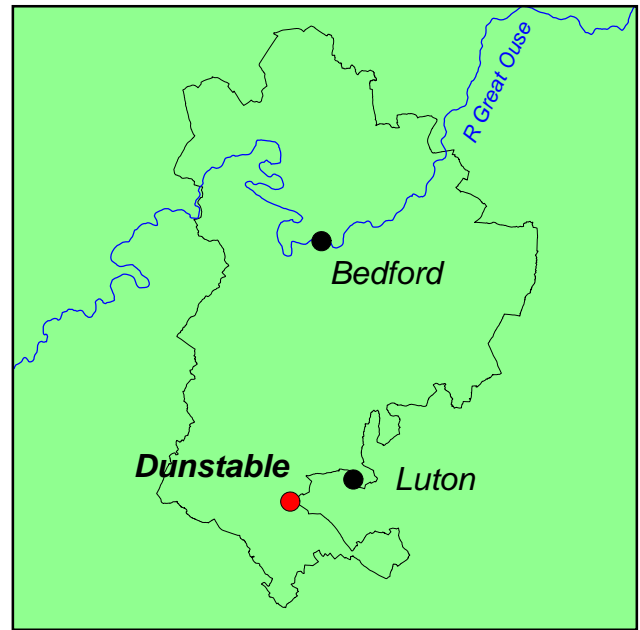
Anglo-Saxon finds were recovered on the west side of the motorway, on the fringes of Chalton, comprising a loomweight and pottery. Later remains of the 12th century were also found nearby, thought to form part of an outlying settlement fronting onto the road from the village. Two existing enclosures appeared to form a small village end, occupied by properties, with medieval remains in the field adjacent.

There were no archaeological features found to the north of Calcutt Lodge or Vauxhall Motors, or in the footprint of Pond no. 4.

1 INTRODUCTION

MOLA was commissioned by Costain Carillion Joint Venture (CCJV), on behalf of the Highways Agency, to conduct a series of archaeological works during development of the dual carriageway link from the A5 near the existing A5/A505 roundabout (north of Dunstable) to the M1 south-west of Chalton, which will be approximately 4.5km long (Fig 1; roughly between NGR SP 9959 2435 and TL 0383 2587). The A5-M1 Link will join the M1 motorway at a new junction (Junction 11a) located between the existing Junction 11 at Luton and the Toddington Motorway Service Area.

A Written Scheme of Investigation (WSI) was prepared by URS (now AECOM) for a series of archaeological evaluation surveys for the A5-M1 Link scheme, comprising archaeological trial trench evaluations and hand excavated test pits (HA 2014a-b). The WSI has been revised by URS during the period of the evaluation, in consultation with Central Bedfordshire Council (CBC), to avoid repeating investigations in areas where competing developments have already undertaken intrusive surveys. The present archaeological work conducted excavation of 43 trial trenches and 27 hand excavated test pits, which were monitored by CBC in conjunction with AECOM.



Scale 1:30,000

Site location Fig 1

The archive materials, comprising the WSI background information, plans, section drawings, field record sheets, photographs and report will be included with the main archive for the archaeological evaluation, the overall scheme mitigation works and associated archaeological watching briefs; to be submitted to Luton Culture under Accession number **LTNMG 1093**. In order to maintain an organised archive, MOLA have added a suffix letter to each stage of work to prevent finds and records from being confused. All records and finds from these evaluation works are registered as **LTNMG 1093 A**.

MOLA is a Chartered Institute for Archaeologists' (CIfA) registered organisation governed by a professional Code of Conduct (CIfA 2014a). All archaeological work was conducted in accordance with the procedural documents of Historic England (HE 2015a), and those published under English Heritage (1991; 2006; 2007; 2008; 2011), together with the appropriate standards and guidance for archaeological field evaluation and archives as set out by the Chartered Institute (CIfA 2014b-c).

2 BACKGROUND

2.1 Archaeological background

The principal Written Scheme of Investigation (WSI), from which all subsequent WSIs derive, provides a full inventory of archaeological information (HA 2015). This information is summarised below, with minor additions from recent trial trench evaluation (Brown 2014; 2015). The names that have been used refer to local common names, and use numbers for known archaeological sites from the Environmental Statement, together with areas noted for targeted archaeological evaluation, both of which originate from the figures that accompanied the Environmental Statement and were used to compile the WSI (HA 2015). These are referenced throughout for the purpose of evaluation.

Summary of archaeological discoveries

Mesolithic (c10,000-4,000 BC)

A scatter of worked flint was recovered from the surface of the plough soil, east of Grove Farm (Site 6, Area D). Mesolithic flint scatters have also been recovered to the south-west of Chalton Cross Farm and close to A5 Watling Street.

Neolithic and early Bronze Age (c4,000-1,500BC)

Scatters of Neolithic and/or early Bronze Age struck flint have been recorded at a number of different locations in the eastern extent of the study area. Finds were recovered alongside Mesolithic scatters, but also in the vicinity of the CCJV main compound and to the south of the M1 Junction 11a on both sides of the motorway. A number of undated cropmarks of possible enclosures are recorded in this area (HER 1037, 1039, 1048 and 1044). Neolithic and Bronze Age flint scatters and undated cropmarks to the south of Grove Farm have been identified as the possible location of a settlement. The Icknield Way, a possible prehistoric trackway, is thought to cross the route of the scheme at around Ch1200-1300. Thiodweg (Salt Way), recorded in a 10th-century document, crosses the scheme at Junction 11a and may also have prehistoric origins as a branch from the Icknield Way

Middle to late Bronze Age (1,500-700BC)

An isolated pit containing pottery of Bronze Age date was recorded during trial trench evaluation to the west of Thorn Farm (Area B). Possible evidence for Bronze Age occupation, comprising four ditches or gullies containing limestone-tempered pottery

sherds, were recorded at Site 3 to the north of Thorn Spring (Site 4), which is a moated site on the east side of Thorn Farm.

Iron Age (700BC-AD43)

Geophysical survey and trial trench evaluations identified an extensive spread of linear and penannular features to the west of Thorn Farm (Site 1, Areas A-B). The remains are expected to represent a farmstead of early to middle Iron Age date. The presence of recut ditches indicated prolonged phases of occupation on the site. In the centre of the site, numerous small pits and gullies were also recorded, suggesting greater complexity than the geophysical survey would suggest (NA 2008b; 2008d).

Cropmark evidence, geophysical survey and trial trench evaluation has revealed a series of late Iron Age to early Roman enclosures (Site 3) to the north of Thorn Spring. A small farmstead was indicated by occupation debris, including pottery sherds, recovered from the gullies and pits, together with the presence of a cobbled surface (NA 2008d).

An area of possible Iron Age and Romano-British settlement was identified from fieldwalking and cropmarks on the south-east side of Grove Farm (Site 6, Area D), however, no features were detected by geophysical survey.

Geophysical surveys and trial trench evaluations recorded fragments of late Iron Age ditches to the north-west of Chalton Cross Farm (Site 8, Area F). The paucity of pottery or other occupation debris suggested a location peripheral to settlement (*ibid*). No further features have been identified during the present work (trenches 69-70).

A possible Iron Age or Romano-British settlement (Site 9, Area I) was indicated to the east of the M1 motorway following geophysical survey and trial trench evaluation. Scattered features included ditches and pits that produced Iron Age and Roman pottery (*ibid*).

Roman (AD43-450)

Some Iron Age settlement sites may have continued in use or have been resettled in the Roman period. Sites from this period have been identified from pottery finds collected on the surface of the plough soil. A possible hilltop settlement lay in the immediate vicinity of Junction 11a (Sites 8-9, Areas F-I). Subsequent geophysical survey and trial trench evaluation has indicated that this site was likely to be a farmstead with outlying enclosures and field boundaries.

Settlement close to the A5 Watling Street Roman road may have been abandoned and cleared shortly before the road was built (Site 1, Areas A-B).

Anglo-Saxon, late Saxon and Norman (AD450-1150)

There are no known settlements or areas of burials for this period within the road development, although two Saxon cemeteries are known from the Chalton area. A trackway called Thiodweg (Salt Way) is first noted in a 10th-century document and may have re-used part of an earlier route. The route is roughly east to west along the ridge south of Chalton, and at least part of it may follow the present bridle path from Lords Hill Cottage to Houghton Road, immediately adjacent to the CCJV main compound.

Medieval (AD1150-1540)

The hamlets of Thorn (Site 2) and Calcutt (Site 5) have medieval origins and formerly were larger settlements with village greens. A well-preserved medieval moated site

exists at Thorn Spring (Site 4). These settlements would have also been surrounded by open field cultivation.

Medieval pottery sherds from cooking vessels were recovered from a ditch during trial trench evaluations to the north of Thorn Spring moated site (at Site 3), suggesting settlement may extend into the road corridor (*ibid*). A pit to the west of Thorn Farm also produced sherds of medieval pottery (Site 1, Area B).

Ridge and furrow cultivation earthworks have been recorded in the field north of Calcutt Lodge (Site 5, Area C) and on the west side of the A5 Watling Street, near Thorn. Calcutt Lodge is recorded as the location of a possible moated site and shrunken medieval settlement, although geophysical survey recorded no evidence for archaeological features in this area (NA 2008b).

Earthworks and geophysical anomalies corresponding with a historic parish boundary between Houghton Regis and Chalton are noted at Site 7. This boundary may also relate to the Thiodweg or Salt Way.

Post-medieval and industrial (AD1540-1900)

Documentary sources refer to a number of quarry pits in the vicinity to extract clay and gravel for building materials. Agriculture continued to be the dominant industry in the area and the late 18th and early 19th centuries brought about the parliamentary enclosure of the remaining medieval open fields.

Thorn Farm is the location of a post-medieval Baptist burial ground (Site 2). This was in use from the late 18th century to early 19th century. There are at least 20 burials in the burial ground, dating from 1769 to 1834, with one modern burial dating to the 1990s. The extent of the burial ground has been traced through historic mapping and its greatest extent appears to be that shown on the 1st edition Ordnance Survey map of 1879. Documentary research did not reveal any evidence for the expansion of the burial ground and no archaeological remains were identified nearby (NA 2008b; 2008d).

A substantial ditch, presumably relating to the former sub-division of the field, was recorded at Site 3, north of Thorn Spring (*ibid*).

Modern (AD1900 to present)

Modern farm buildings are located at Thorn (Site 2) and Calcutt (Site 5), however, the settlements themselves have been in existence since the medieval period.

The original M1 motorway was constructed, 1958–9, and aerial photographs suggest that there was a construction facility where the present CCJV main compound is located. During recent improvement works for the M1 there was a vehicle recovery compound on the east side of the motorway. Geophysical survey has detected a number of buried utilities close to and parallel with the M1 northbound motorway.

Previous archaeological work

A number of previous archaeological surveys have already been undertaken to assess the cultural heritage impact of the road development and to inform an Environmental Statement in 2006-7.

Cultural heritage desk-based assessment of Thorn Farm burial ground was undertaken by Scott Wilson (HA 2006a). The burial ground contains a small cemetery that is associated with a Baptist Meeting House that was established in 1740. The report

concluded that the extent of the burial ground would not be affected by a proposed overbridge that would be constructed nearby (HA 2006b).

There has been monitoring of selected ground investigation trial pits (HA 2007a) and geophysical survey along available sections of the route (NA 2008b). Archaeological trial trench evaluation was undertaken to assess the results of the geophysical survey and to investigate the archaeological potential at Thorn Farm burial ground (NA 2008d). A total of 29 trenches of various sizes were excavated, which produced evidence of archaeological activity dating from the Bronze Age to the post-medieval period.

The results of these previous works were assessed and reviewed by URS in relation to updated design plans and as a result a further phase of intrusive survey was approved by CBC in order to inform the archaeological mitigation strategy.

Other archaeological work nearby

Fieldwalking was conducted by Manshead Archaeological Society in the arable fields to the north of Houghton Regis. The results of their surveys are recorded in the Central Bedfordshire Historic Environment Record (HER). Reports on the fieldwalking appear in the Manshead Magazine, their society newsletter, and South Midlands Archaeology.

Fieldwork and desk-based assessments that were completed for the M1 Widening Scheme, Junctions 10 to 13, at the east end of the scheme. There has been a programme of fieldwalking alongside the motorway (BCAS 1993; NA 2006a; NA 2008c), a detailed geophysical survey alongside the motorway (GA 1993; Stratascan 1993; 1994; NA 2006b; 2008a), archaeological trial trench evaluation at selected locations (BCAS 1995), the assessment of LiDAR data along the M1 corridor (HA 2007b), and the assessment of ground disturbance along the M1 corridor (HA 2006a).

2.2 Topography and geology

The site of Junction 11a lies upon a low natural plateau between the valley of the River Flit to the north, and the headwaters for the River Lee to the south-east and the River Ouzel to the south-west. These fields are fairly level and slope very gradually towards the south from c130m above Ordnance Datum (aOD). As the road corridor proceeds west it drops gradually along the north side of the Ouzel Brook onto the upper flood plain at c105m aOD where it crosses the A5120. The land is then fairly flat, proceeding west, with a very gentle downward slope as the road curves around to meet with the A5 Watling Street at c100m aOD. The land through which the road corridor will pass is mainly arable, with a small amount of pasture in the vicinity of Grove Farm. Land boundaries are defined by modern drainage ditches and hedgerows.

The solid geology comprises geological units of the Upper Cretaceous (BGS 2001). The topsoil and subsoil is underlain by both the West Melbury Marly Chalk Formation (formerly the Chalk Marl) and Zig Zag Chalk Formation (formerly the Grey Chalk) of the Lower Chalk Formation, separated with a thin limestone band (the Doolittle Limestone). Glacial Till is shown to overlie the chalk in a small area near Junction 11a.

The soils of the plateau near Junction 11a are of the Swaffham Prior association, comprising well drained calcareous coarse and fine loamy soils over chalk (LAT 1983, 511e). The southern slopes are covered by soils of the Wantage 1 association, which are similar but are siltier, and which follow the Ouzel Brook (*ibid*, 342c). The western extent of the route, from the fields west of Grove Farm to A5 Watling Street, comprises

soils of the Block association, which are permeable calcareous loamy soils over chalky gravel (*ibid*, 512e). These soils only form over Cretaceous chalk.

3 FIELDWORK STRATEGY

3.1 Objectives

In general the objectives of the fieldwork surveys were:

- to evaluate the results of previous surveys, including the results of the geophysical survey that has been undertaken during earlier stages of project planning, and for the related M1 improvement works;
- to contribute additional data to determine the character and nature of the buried archaeological resource in terms of location, extent, date, condition, preservation, significance and complexity.
- to determine the distribution of the buried remains within the impact of the road development;
- to determine the level of risk that the archaeological resource would present to construction, and;
- to inform an appropriate overarching archaeological strategy for producing a programme and specification for further mitigation.

The specific objectives of the archaeological trial trench evaluation were:

- to assess the results of previous surveys, including fieldwalking, geophysical survey and aerial reconnaissance;
- to assess the distribution and extent of Mesolithic and Neolithic flint scatters within and beneath the topsoil at the location specified for archaeological test pit excavation;
- to determine the presence or absence of buried archaeological remains along the route of the road corridor, and;
- to determine the condition and state of preservation of any buried archaeological remains, including their character, depth, extent and date.

The principal objectives of the fieldwork follow the guidance of national and regional research frameworks. These include the National Framework (EH 1997), the research frameworks for the Eastern Counties (Brown and Glazebrook 2000; Medlycott and Brown 2008; Medlycott 2011), and the assessment for Bedfordshire (Oake *et al* 2007).

3.2 Methodology

Trenches were excavated in the locations shown in the WSI and approved by the CBC Planning Archaeologists, totalling 43 trial trenches and 27 hand dug test pits (HA 2014b). These were located in the field using survey grade GPS (Leica System 1200) operating to an accuracy of +/- 0.05m (Fig 2). Any variations were kept to a minimum and agreed by AECOM with CBC before excavation was undertaken. The majority of trenches that

were 50m long by 2.0m wide (one machine bucket width), four trenches were of double width, 25m long by 4.0m wide.

In the trenches topsoil deposits were removed to the surface of the archaeological horizon by a tracked mechanical excavator, fitted with a toothless ditching bucket and operating under archaeological direction. Movement of machinery was conducted in such a manner as to avoid impact on the archaeology.

For hand dug test pits the turf, where present, was removed with a spade and stacked neatly, checking the underside for adhering finds. The underlying topsoil was broken up with a hand trowel and then removed with a hand shovel in level spits, 100mm thick, whilst checking for finds. Test pits were excavated to the top of the undisturbed natural horizon.

Each trench and test pit was cleaned sufficiently to enable the identification and definition of archaeological features. All archaeological deposits and artefacts encountered during the course of excavation were fully recorded. The recording followed the standard MOLA context recording system with trench record sheets using unique context numbers for each feature or deposit, cross-referenced to scale plans, section drawings and photographs using digital and 35mm monochrome film (MOLA 2014). Deposits were described on *pro-forma* record sheets to include measured and descriptive details of the context, its relationships, interpretation and a checklist of associated finds. Archaeological features were drawn on permatrace at scale 1:50 and related to the Ordnance Survey. Sections of sampled features were drawn at scale 1:10 or 1:20, as appropriate, and all levels were related to Ordnance Survey datum. Spot heights were measured in each trench using the Leica 1200 GPS and a dumpy level. Representative samples of all exposed archaeological features were excavated, using sections of 1.0m width or 50% of the whole for pits and postholes. Artefacts were collected by hand and from sieved samples. Spoil and the surface of archaeological features were scanned with a metal detector to ensure maximum finds retrieval. The field data has been compiled into a site archive with appropriate cross-referencing.

4 THE EXCAVATED EVIDENCE

4.1 General overview

Six trial trenches were laid out in the area of the present CCJV compound in May 2014 (Fig 2; Areas F-G, Trenches 71-72, 78-80 and 85). Topsoil was stripped to the surface of the natural substrate in each trench. There was no evidence for surviving subsoil. All of the trenches exposed boulder clay at the surface of the superficial geology, except for trench 71, which exposed chalk. Much of the area to the north of Sundon Road appeared to have been stripped at the time of the M1 motorway construction, and exhibited a few shallow modern disturbances. Trench 85 showed some signs of vegetative root hollows. None of the trenches contained archaeological features.

Further trial trench evaluation focused around the vicinity of Junction 11a in October 2014 (Fig 2). There was little sign of activity to the south-west of the CCJV main compound, trenches 69-70 and 77 contained no archaeological features or finds (Site 8, Area F). Trench 76 contained a single gully, which was probably of late Iron Age date. Trench 73 contained a single undated gully. Trial trench evaluations slightly further to the south identified probable Iron Age enclosure boundaries that correlate with geophysical surveys on the east side of Sundon Road, together with postholes for a structure (NA 2008d, fig 4).

To the west of the CCJV main compound there was very good preservation of archaeological remains on the hilltop adjacent to two properties call Hillcrest, which front onto the road out of Chalton (Area G). Trenches 81-82 produced a fairly concentrated group of features, with finds of late Iron Age, Anglo-Saxon and medieval date. However, further downhill to the north, trenches 83-84 demonstrated considerable modern disturbance caused by the grubbing up of tree stumps and levelling with material that included tarmac and asbestos. Trench 86 was located in the valley bottom on the north-east side of Chalton (Area H) and contained no archaeological features.

Trenches to the north-east of the M1 motorway confirmed that further late Iron Age and Roman remains survive beyond the impact of the original motorway. A low density scatter of such features had been investigated previously (*ibid*), and the present excavations in trenches 88 and 92 indicate that low density remains are likely to be dispersed more widely across the northern of the two fields. The field to the south (Area I) was evaluated with trenches 89-91, which did not contain any archaeological features. Similar works for CgMs Consulting in the same field, beyond the extent of the road scheme, found an undated posthole and gully (Fairclough 2015). A single undated ditch was found slightly further south, on the east side of the M1 motorway in trench 93, which was located along the east drainage course.

To the west of Junction 11a, along the A5-M1 road corridor, four trenches were excavated at Ch3670-3970 (Fig 3; Site 7, Area E). Trench 63 contained three substantial undated ditches, whilst the other trenches were blank.

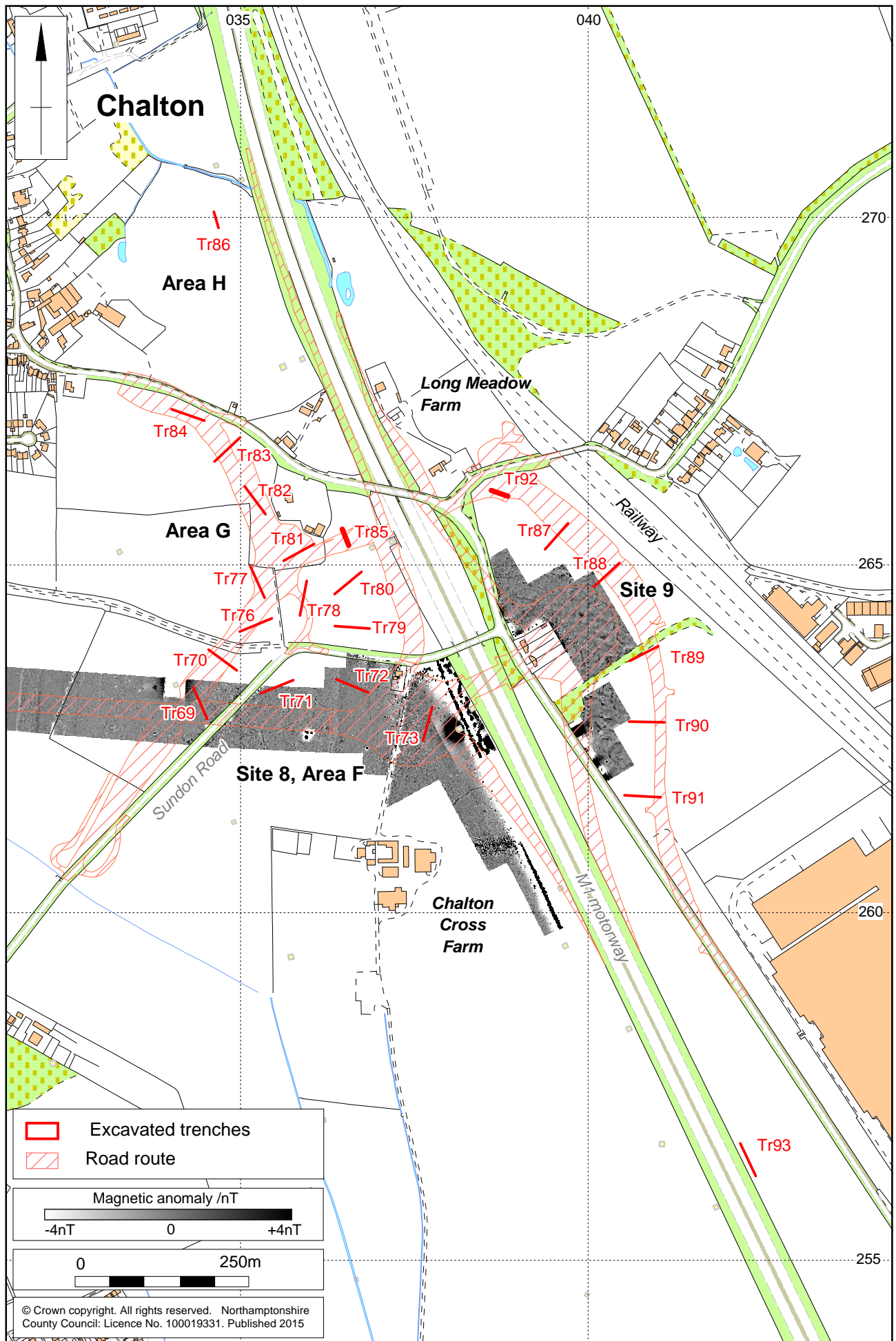
Further along the road corridor to the west, six trenches were excavated at near to Grove Farm (Fig 4; Site 6, Area D). Trenches 50-51 lay immediately to the south of the farm and contained eight undated features between them, including both ditches and pits. The remaining trenches were distributed to the east of the farm and were blank. A few pieces of worked flint were collected from the topsoil in trenches 53-56, which supplement those found in the hand excavated test pits along the same stretch of road corridor.

There were 27 hand excavated test pits along the centre line of the scheme, equally spaced between Ch2550-3000. None of the test pits contained archaeological features. The test pits showed that in most cases the subsoil was absent or had a thin lens of less than 60mm. The topsoil thickness remained consistent in the range of 280-300mm. Eleven test pits (40.7%) produced a total of 19 worked flints from the topsoil in TPs 6-7, 13-14, 16 and 21-26, the latter five test pits were grouped together at the east end of Area D.

In the fields to the north of Calcutt Lodge (Fig 5; Site 5, Area C) there were six trenches marked out, although trench 48 was omitted from the works because of access issues arising from the need to move the occupant horses. No archaeological features were present and there was no evidence for ridge and furrow cultivation.

Three trenches were located to the west of Thorn Farm (Fig 6; Area B). These trenches contained a total of twelve undated features, which could not be examined closely because the trenches flooded rapidly with ground water. It was agreed between AECOM and CBC that the area would be included under a targeted watching brief during the mitigation work and that the trenches could be backfilled quickly without further investigation until that time.

The narrative in subsequent sections presents the results of the trial trench evaluation according to chronology by site and then by trench, including deposit descriptions and the dimensions of features.



Scale 1:7500

Trench locations, Junction 11a Fig 2



Scale 1:3000

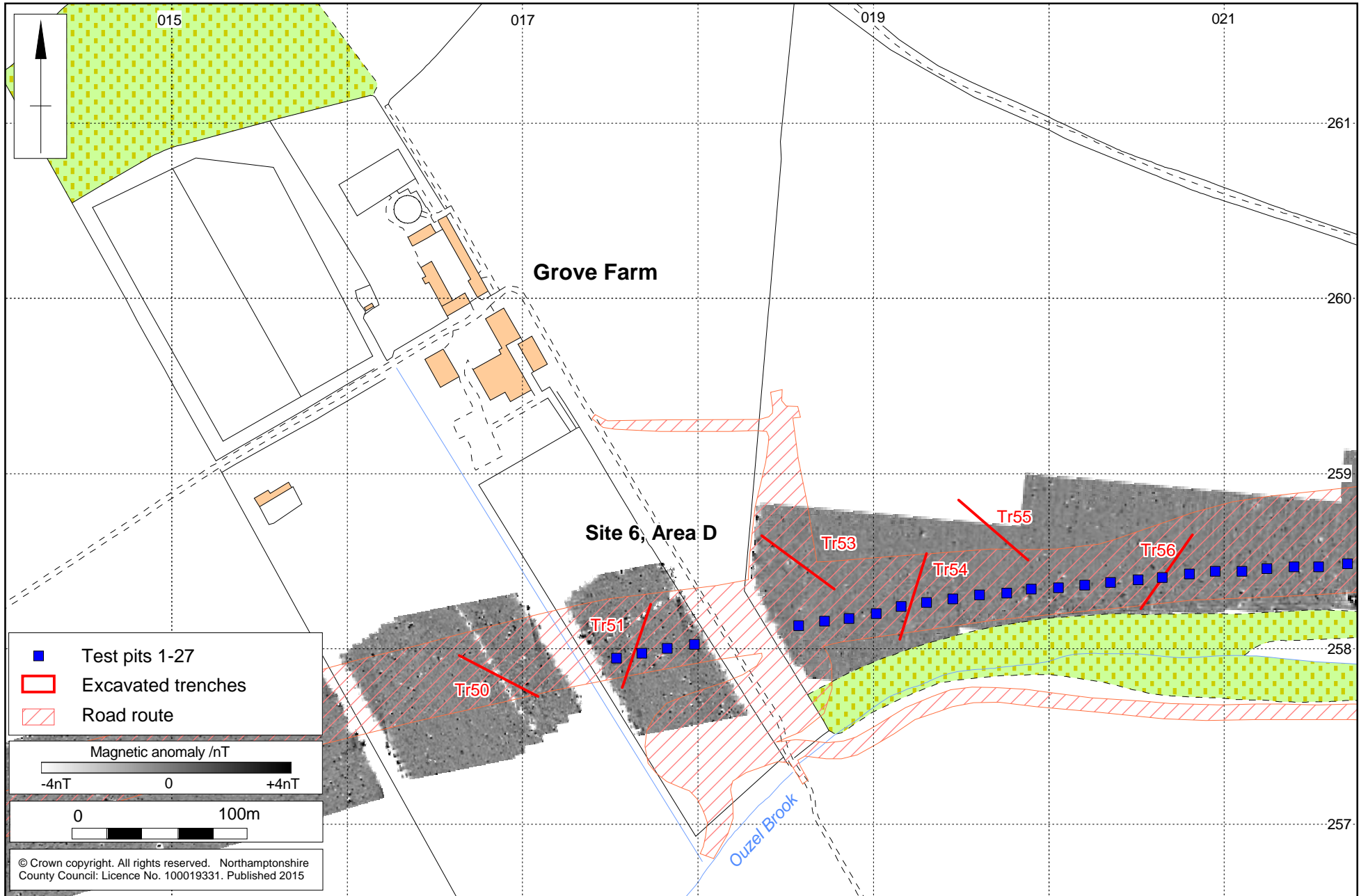
Trench locations, Ch3670-3970

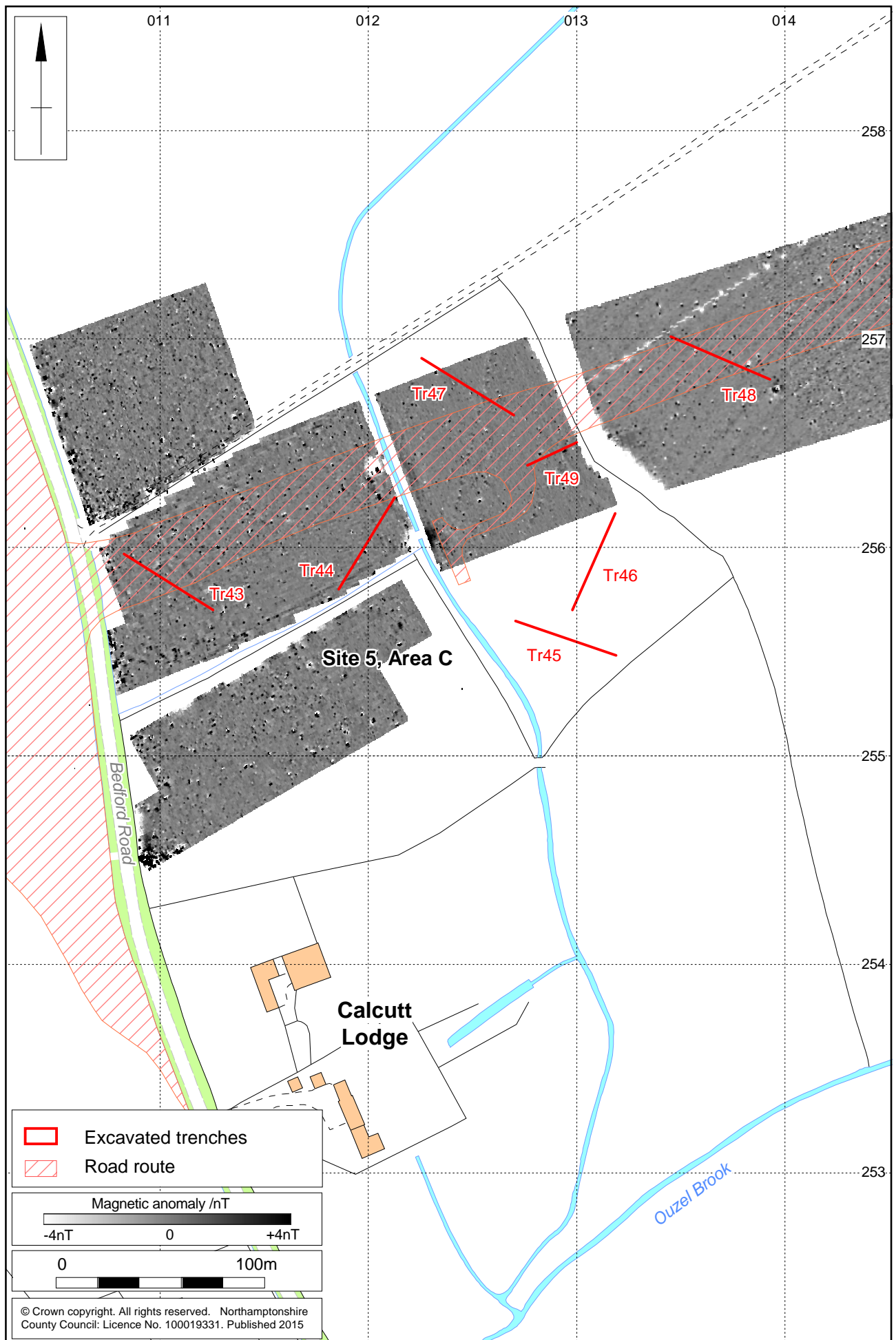
Fig 3

Scale 1:3000

Trench and test pit locations, Grove Farm

Fig 4





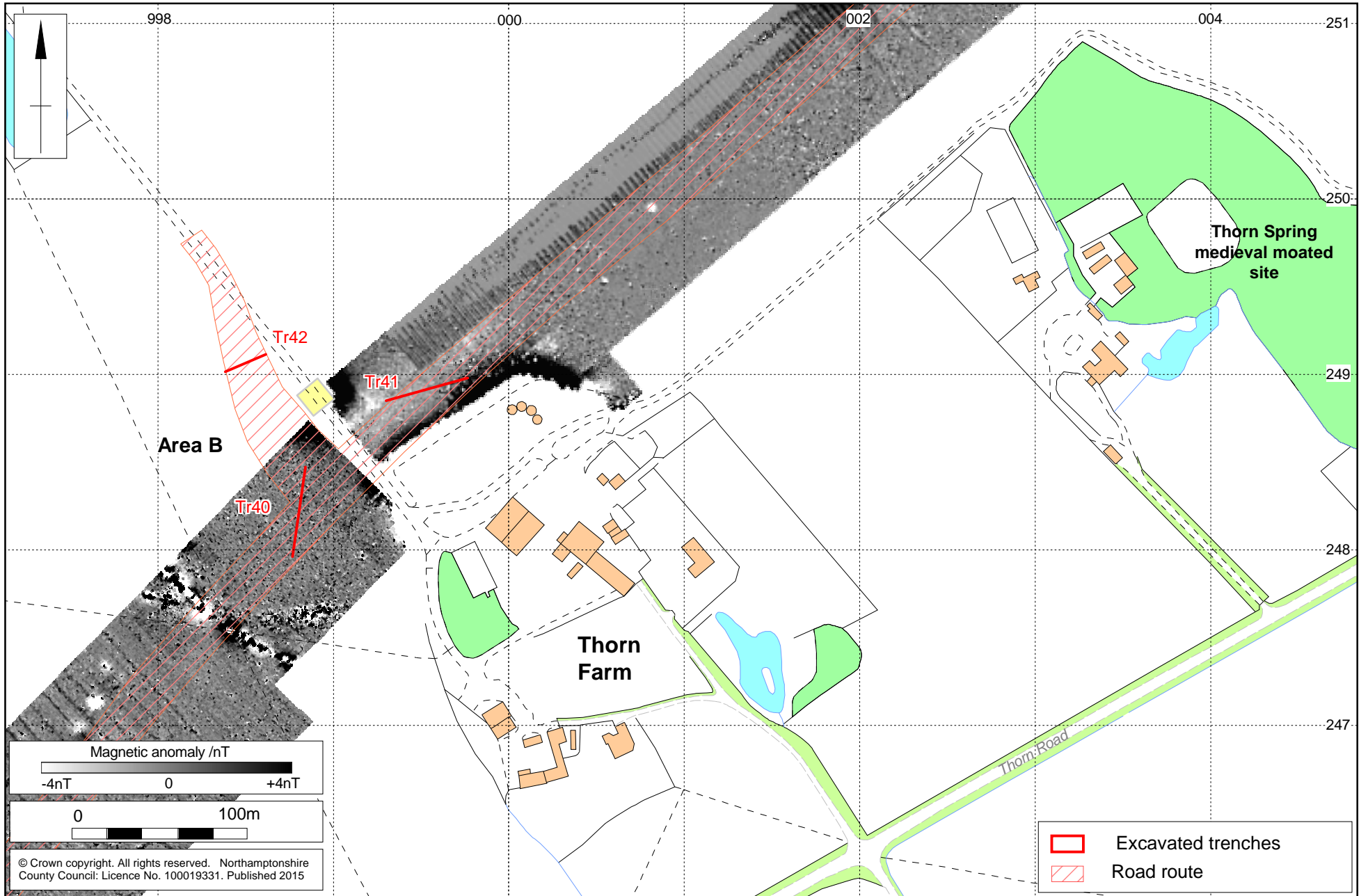
Scale 1:2500

Trench locations, Calcutt Lodge Fig 5

Scale 1:3000

Trench locations, Thorn Farm

Fig 6



The following trenches were found to contain no archaeological features (Table 1). Topsoil and subsoil (where present) was recorded in each trench, the combined thickness varied in the range of 250-580mm. Spot height data was collected at surface of the natural horizon. Photographs were taken of each open trench, and after their backfill. Signs of tree root disturbance, furrows, plough scars and natural variations of the geological substrate were checked before being dismissed.

Table 1: List of blank trenches

Location	Blank trenches
Calcutt Lodge, Site 5, Area C	trenches 43-49, trench 48 was omitted from the works
Grove Farm, Site 6, Area D	test pits 1-27, trenches 53-56
Ch3670-3970, Site 7, Area E	trenches 58, 61 and 64
Chalton Cross Farm, Site 8, Area F	trenches 69-72, 76-80, 85
Longmeadow Farm, Site 9	trenches 89-91
Pond no. 4, Area H	trench 86
Chalton, Luton Road, Area G	trenches 83-84

4.2 Undated, potentially prehistoric features

Ch3670-3970, Site 7, Area E

Trench 63

A single trench contained archaeological features, trench 63 (Fig 7). The features comprised three ditches, none of which produced finds.

Ditch 6305 was straight, aligned north to south, 1.30m wide by 0.35m deep with 45-55° straight sloping sides and a flat base (Fig 8, S27). The ditch was filled with firm light greyish-brown silty clay. The boundary had been cut by ditch 6311 on the same alignment, which had a slightly shallower profile and rounded base, 0.90m wide by 0.30m deep. This fill was, however, much darker greyish-brown with greater similarity to the fill of ditch 6307.

Ditch 6307 was the end of a ditch at its east terminal, 0.50m wide by 0.18m deep with 40-50° curved sloping sides and a rounded base (Fig 8, S28). The ditch was filled with firm dark greyish-brown silty clay and is thought to be part of the same overall feature as ditch 6311.

Ditch 6309 was straight, aligned north-west to south-east, 2.00m wide by 0.95m deep with 45-60° straight sloping sides and a narrow flat base (Fig 8, S29). The ditch was filled with firm dark greyish-brown silty clay.

Grove Farm, Site 6, Area D

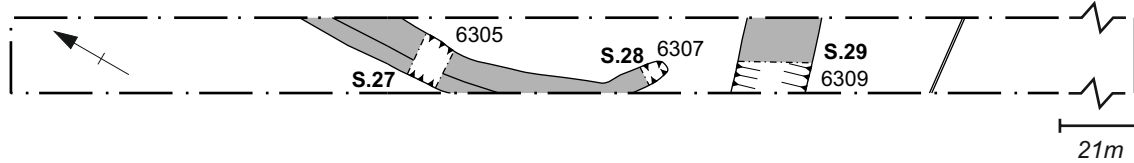
Trench 50

There were six archaeological features in trench 50, comprising three ditches, two ditch recuts and one pit (Fig 7). In addition there were also signs of heavy root disturbance.

Ditch 5005 was straight, aligned west to east, 1.75m wide by 0.37m deep with 45-55° straight sloping sides and a flat base (Fig 8, S32). The ditch was filled with firm dark grey silty clay and contained a single abraded sherd, weighing 9.6g, of what is probably either an abraded Roman shell tempered fabric or medieval shelly coarseware. This pottery alone is not credible dating given its appalling condition and could just as easily be intrusive.

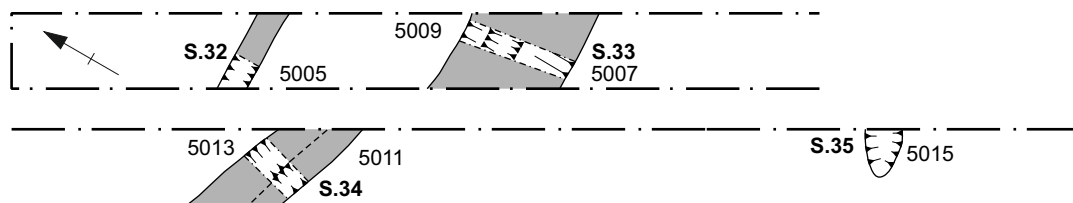
Ch3670-3970

Trench 63

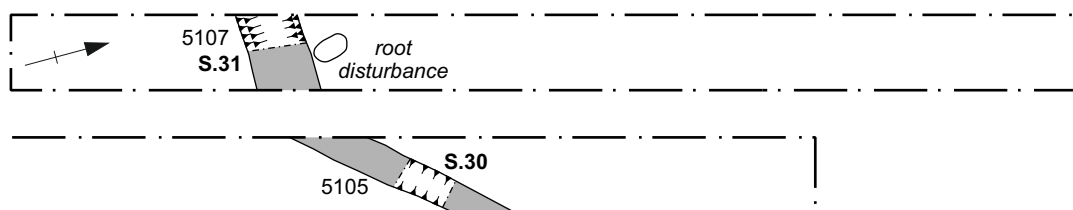


Grove Farm

Trench 50

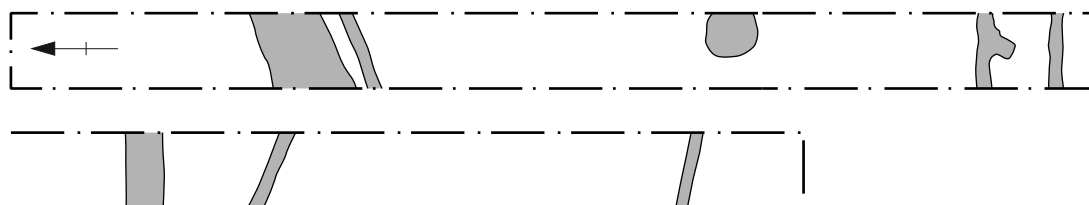


Trench 51

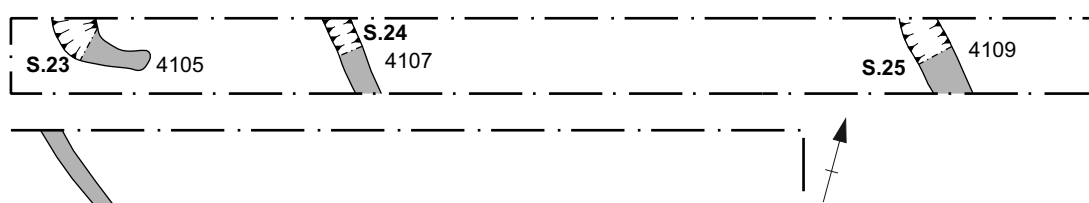


Thorn Farm

Trench 40



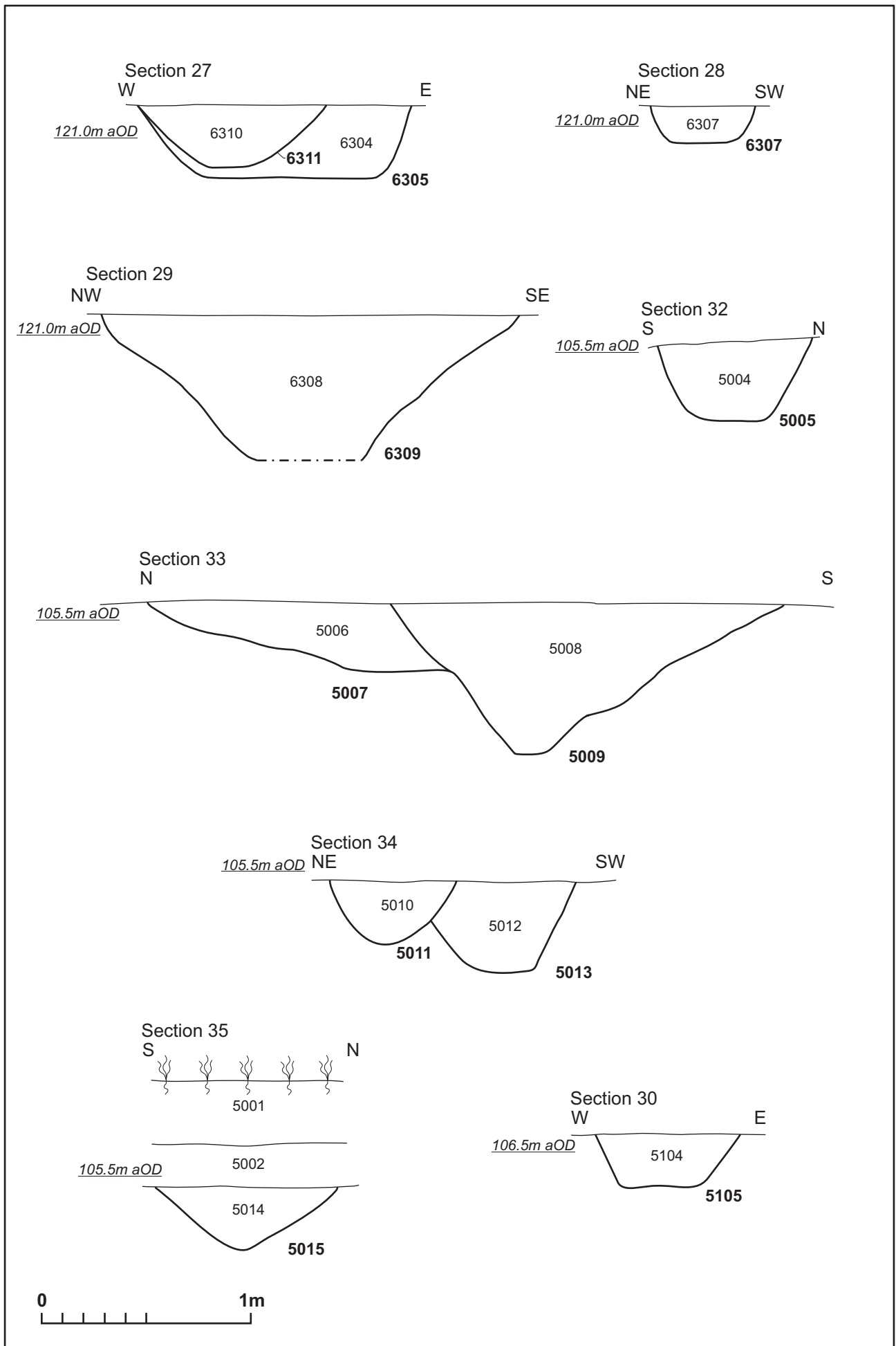
Trench 41



Trench 42



0 10m



Scale 1:25

Undated features, Trenches 50-51 and 63 Fig 8

Ditch 5009 was straight, aligned west to east, 1.90m wide by 0.72m deep with 45-55° straight sloping sides and a flat base (Fig 8, S33). The ditch was filled with firm dark grey silty clay. The boundary had been recut by ditch 5007 on the same alignment, which had a slightly shallower profile, 1.20m wide by 0.34m deep, but with similar fill. Neither ditch produced finds.

Ditch 5013 was straight, aligned west to east, 0.70m wide by 0.43m deep with 50-60° straight sloping sides and a flat base (Fig 8, S34). The ditch was filled with firm dark grey silty clay. The boundary had been recut by ditch 5011 on the same alignment, which had a slightly shallower profile and rounded base, 0.61m wide by 0.30m deep. The fills were similar and neither ditch produced finds.

Pit 5015 was oval, in one side of the trench only. It may also possibly be the end of a ditch. The pit was 0.88m wide by 0.30m deep with rounded concave sides sloping at 40-50° into a rounded base (Fig 8, S35). The fill was firm dark grey silty clay, devoid of finds.

Trench 51

Trench 51 contained two ditches, one located at either end (Fig 7). There was a strong correlation of alignment between ditch 5107 and ditch 5007 in the neighbouring trench, suggesting that this was a continuous boundary. However, neither ditch produced finds.

Ditch 5105 was straight, aligned north-east to south-west, 0.70m wide by 0.25m deep with 40-50° straight sloping sides and a flat base (Fig 8, 30). The ditch was filled with firm dark brownish-grey silty clay.

Ditch 5107 was straight, aligned east to west, 0.70m wide by 0.25m deep with 40-50° straight sloping sides and a flat base (not illustrated). The ditch was filled with firm dark brownish-grey silty clay.

Thorn Farm, Area B

Trench 40

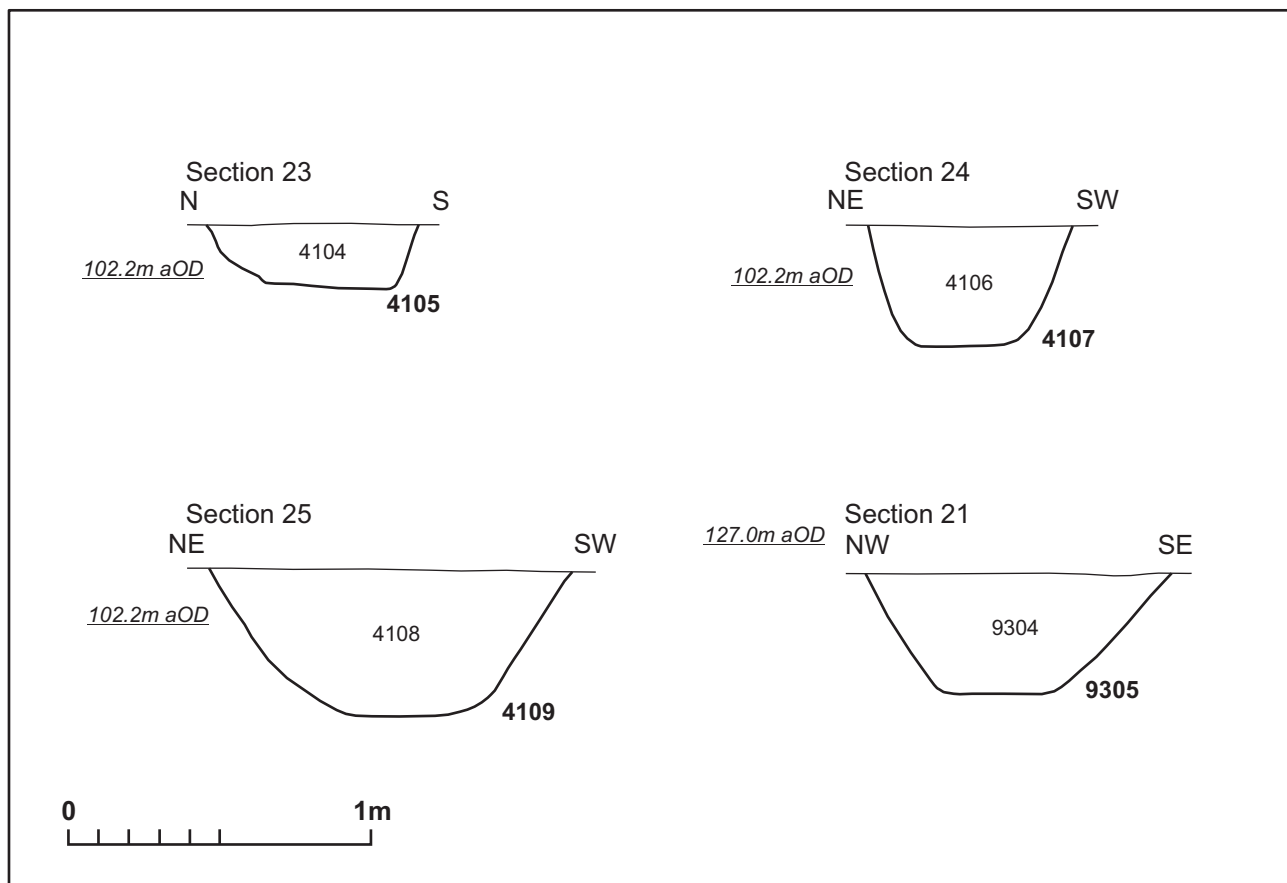
It was not possible to undertake hand sampling of the features exposed in trench 40, as this flooded before investigation could take place. A plan of eight potential features was recorded (Fig 7).

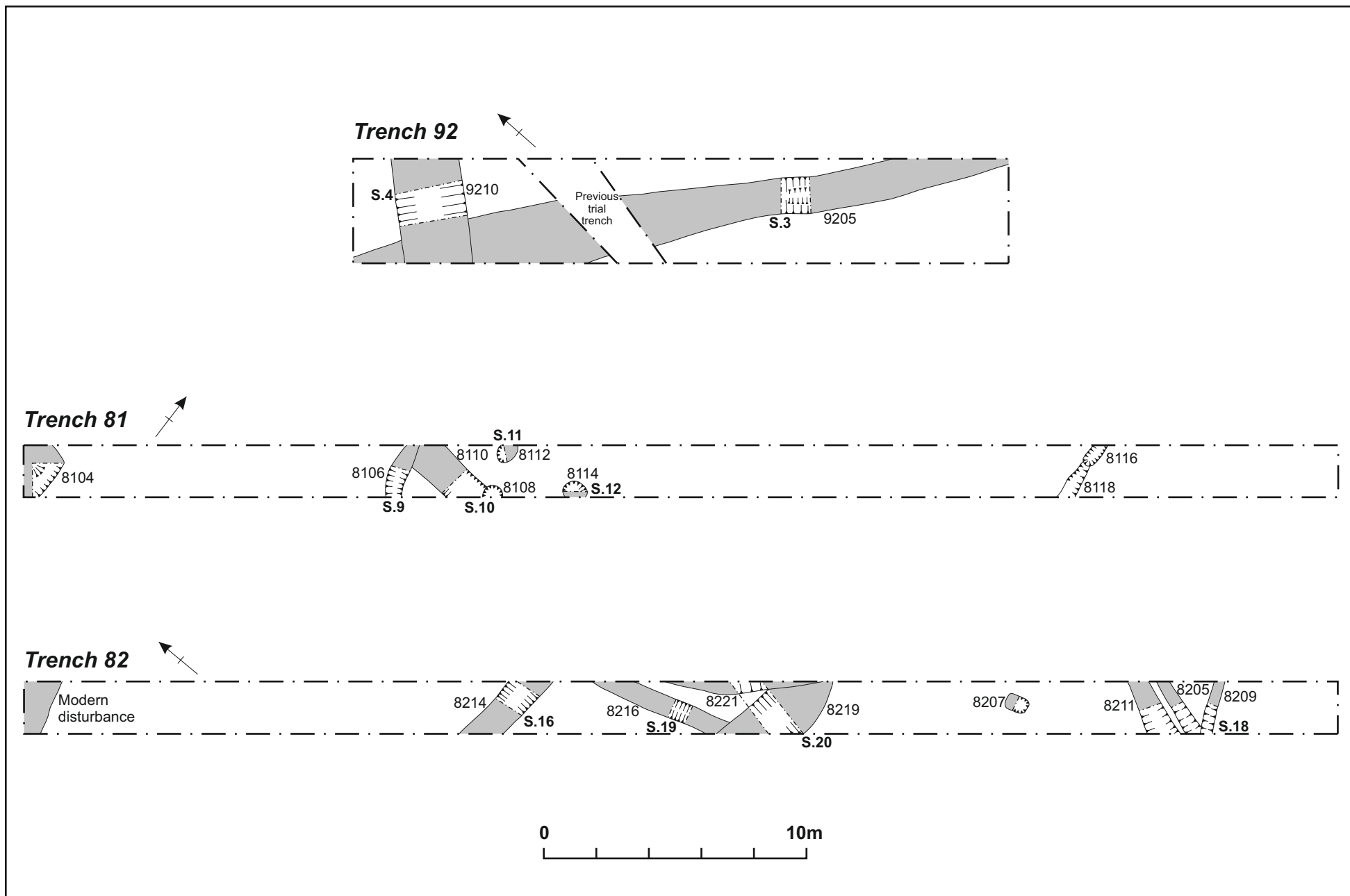
Trench 41

There were three features in trench 41 (Fig 7). Gully 4105 curved into the trench from the north and terminated, it was 0.80m wide by 0.21m deep and had straight 40-50° sloping and slightly uneven sides with a flat base (Fig 9, S23). The gully was filled with firm mid-yellowish-brown sandy clay, but no finds.

Ditch 4107 was straight, aligned north-west to south-east, 0.68m wide by 0.40m deep with 40-50° straight sloping sides and a flat base (Fig 9, S24). The ditch was filled with firm mid-brown silty clay with no finds. Both features appeared to have silted up gradually.

Ditch 4109 was straight, aligned north-west to south-east; 1.20m wide by 0.48m deep with 40-50° uneven ragged sloping sides and an undulating base (Fig 9, S25). The ditch was filled with firm dark grey silty clay and contained a fragment of brick. The feature appears to have been a grubbed out hedgerow, of which there are many mapped out as small post-medieval enclosures by the 1888 Ordnance Survey.





Trench 42

A single large ditch was aligned north-west to south-east (Fig 7). Hand excavation of the ditch was started but abandoned following flooding. The feature was substantial, over 1.2m wide and over 0.5m deep. The fill was dark silty clay but no finds were recovered.

M1 motorway, east side drainage route, south of proposed junction*Trench 93*

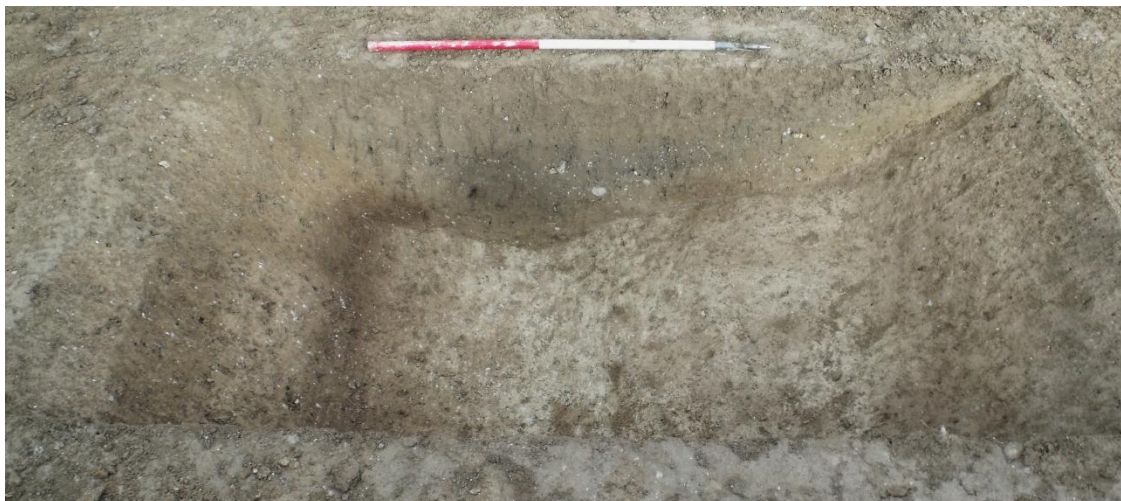
A single ditch was found in trench 93, beside the M1 motorway (Fig 7). Ditch 9305 was straight, aligned north-east to south-west, 1.00m wide by 0.40m deep with 40-50° straight sloping sides and a slightly uneven base (Fig 9, S21). The ditch was filled with firm mottled mid-greyish-reddish-brown sandy clay. No finds were present.

4.3 Late Iron Age and early Roman features

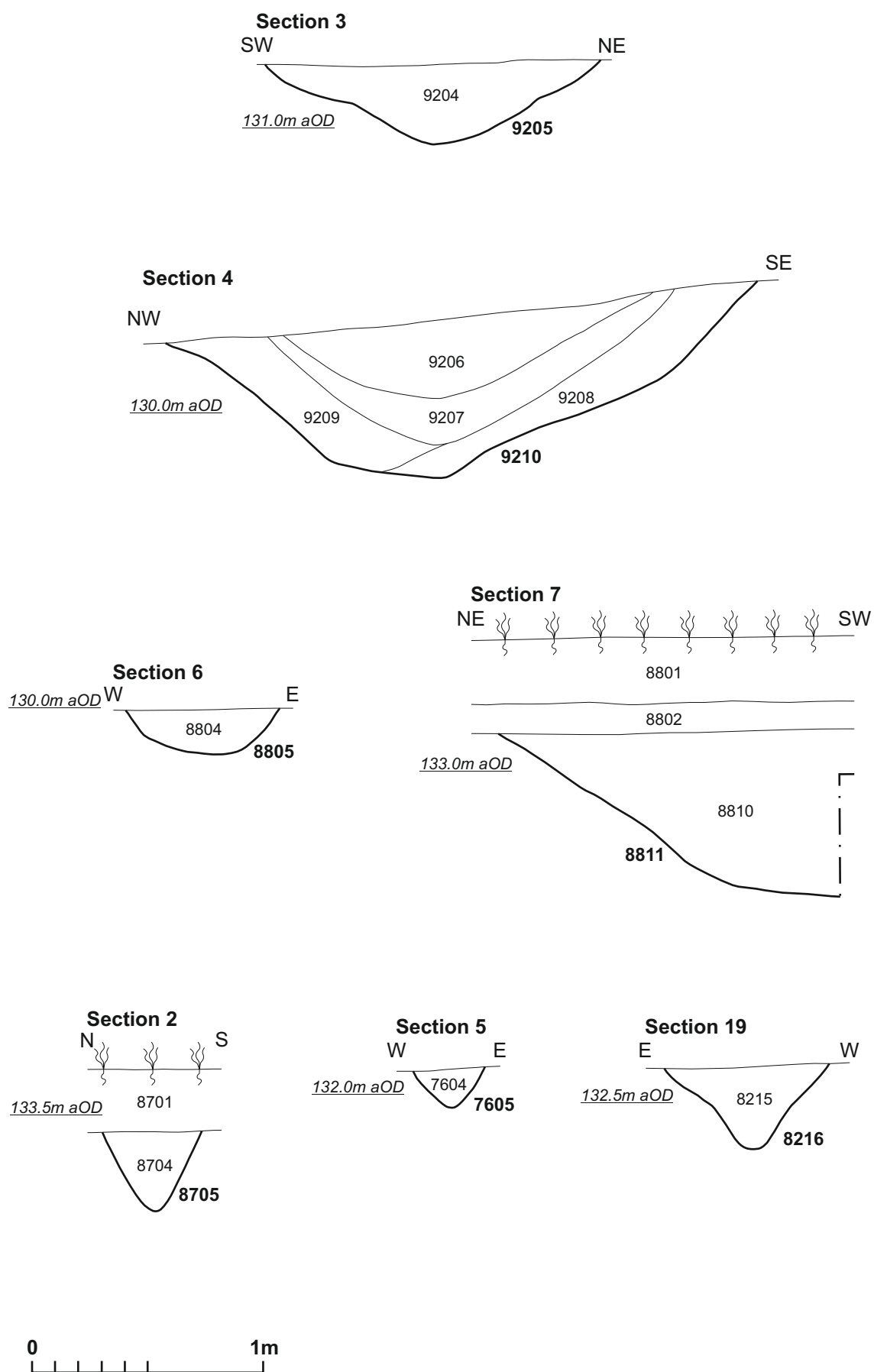
The dateable pottery, which is from the first part of the 1st century AD, comes mostly from ditches 9205 and 9210 in trench 92 (Fig 10). A lesser quantity of sherds are from a large probable quarry pit, 8811, and the subsoil above it, in trench 88. A handful of other sherds come from gully 7605 in trench 76, gully 8216 in trench 82 and gully 8705 in trench 87 (see Table 2, pottery report).

Longmeadow Farm, Site 9, Area I*Trench 92*

Ditch 9205 was aligned north-west to south-east down the slope of the trench. The ditch had a widely splayed V-shaped profile and a narrow slightly rounded base, 1.45m wide by 0.36m deep (Fig 12, S3). Truncation of the feature appeared fairly high. The fill comprised friable pale greyish-brown silty clay, containing both pottery and animal bone, which merged with the lower fills within ditch 9210 at the junction of the two features. It would appear that their use was contemporary and that they form part of the same enclosure layout.



Ditch 9210, Trench 92, looking north-east Fig 11



A particularly large ditch, 9210, aligned north-east to south-west, was 2.56m wide by 0.68m deep (Fig 12, S4). The sides were fairly straight, sloping gradually, with a broad flat, if slightly uneven base. The profile, whilst substantial, gave a general impression of truncation (Fig 11). The basal fill comprised firm mid brownish-orange silty sandy clay, 0.30m thick, which seems to have been material eroded from the sides. This merged towards a darker greyish-brown deposit above it, 0.30m thick, probably indicating that some surface soils were washed into the ditch. The ditch may have had a fairly long period over which it gradually silted and the surrounding area at this interface indicated a spread of material around the feature, similar to the lower fills and the fill of ditch 9205, which may indicate a period of flooding.

A fairly small and discrete dump of pottery, bone and fragmented quern within dark grey silty clay, 9207, lay between the lower deposits and the mid greyish-brown silty clay at the top. The deposits both above and below were devoid of finds, so it would appear to have been allowed to silt naturally rather than being filled after disuse.

Trench 88

The majority of potential features in this trench were examined and found to be the product of ancient root activity with very distinct undercut edges, root hollows and mixed light to dark soil discolouration. Two features were distinct, quarry pit 8811 and gully 8805, both produced datable pottery, together with animal bone and worked flint from the quarry pit.

Gully 8805 was aligned north to south and had a simple rounded U-shaped profile, 0.69m wide by 0.23m deep (Fig 12, S6). The fill comprised hard mid-greyish-brown silty clay. The gully lay c6.0m to the north-east of the quarry pit.

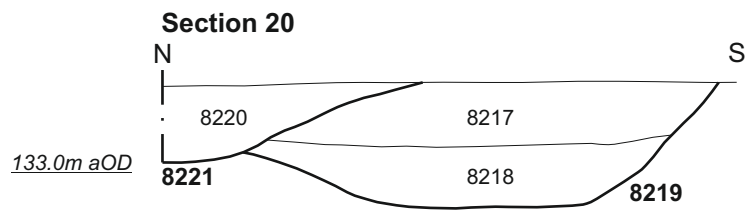
Quarry pit, 8811, lay at the south-west end of the trench and extended well beyond the limits of excavation. The pit was over 6.0m in diameter and had a curved edge in plan. One side was examined, which had a steep slope with a sharp break onto a flat base (Fig 12, S7). The fill was fairly consistent solid dark greyish-brown silty clay, which gave the impression that it had settled as a fine sludge, dried out and set hard. It is possible this could have been a by-product of washing the chalky till to separate lime from the clay.

Trenches 76, 82 and 87

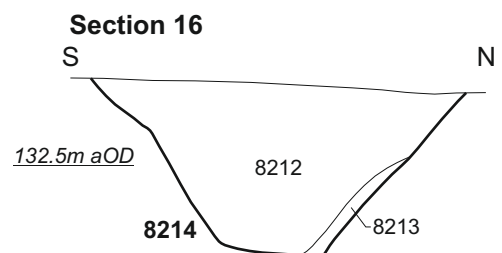
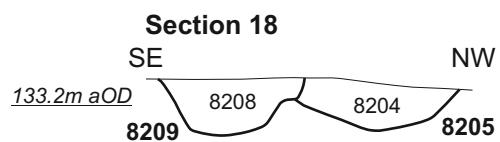
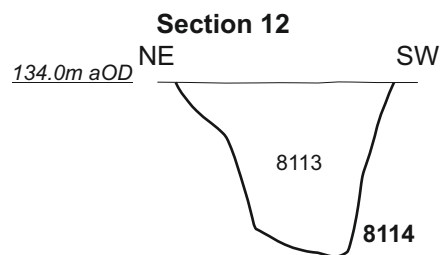
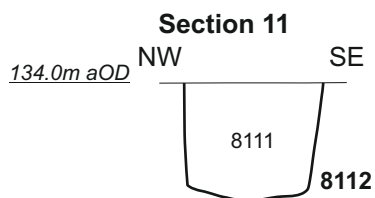
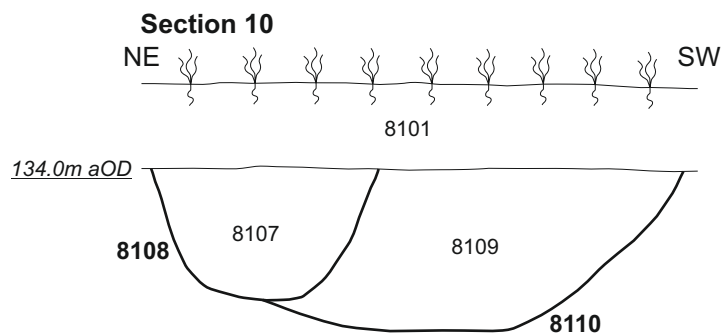
These three trenches were widely separated; each one contained a gully with late Iron Age to early Roman pottery. Trench 87 lay between trenches 88 and 92, which contained contemporary features (see above). Trench 82 lay in an area where the other surrounding features were all either Anglo-Saxon, medieval or undated; whilst the gully in trench 76 lay isolated from any other features, contemporary or otherwise.

Each of the gullies is fairly unremarkable, with one or two pottery sherds in each. Although they vary in size, gully 8216 was the largest at 0.70m wide by 0.38m deep, they all exhibited a similar sharp V-shaped form with a narrow, slightly rounded, base (Fig 12, S2, S5, S19). Their fills varied in terms of the greyish-brown silty clay hue, but none were particularly dark or contained charcoal, and they are probable all likely to be located some distance from late Iron Age or early Roman habitation.

Anglo-Saxon



Medieval



4.4 An Anglo-Saxon ditch

Chalton, Luton Road, Area G

Trench 82

The loomweight of 7th to 8th century date is a distinctly diagnostic artefact of its period and was accompanied with some large sherds of pottery that indicate a primary deposit of material with no signs of abrasion.

The finds were recovered from ditch 8219, which was aligned east to west, 1.50m wide by 0.43m deep (Fig 13, S20; Fig 14). The feature was reasonably substantial, giving the impression of a plot or enclosure boundary. The fills, 8217 and 8218, were not especially dark in colour and were silty in composition. They may have derived from gradual accumulations of in-wash, high in charcoal from nearby occupation, and punctuated by periodic discrete dumps of domestic waste.



Ditches 8219 and 8221, Trench 82, looking east Fig 14

4.5 Medieval features

Chalton, Luton Road, Area G

Pottery of 12th to 13th-century date provided dates for a gully, 8106, and a posthole, 8108, in trench 81; together with a gully, 8209, and a ditch, 8214, in trench 82 (Figs 10 and 13). There was also one sherd of Hertfordshire-type greyware, of perhaps late 12th to 14th-century date, from ditch 8221 (Fig 14). With the exception of the Anglo-Saxon finds in ditch 8219 and one gully, 8216, which produced possible late Iron Age sherds, the other features in these trenches are undated.

Trench 81

An undated ditch, 8110, lay east to west and had a steep-sided and slightly curved profile with a flat base (Fig 13, S10). The mixed orange-brown silty clay fill was fairly clean and appeared to be a gradual accumulation of in-wash in a boundary ditch set away from occupation. The boundary may have been associated with the possible

medieval plots fronting the road, or it may be earlier. This ditch was clearly cut by posthole 8108, which was probably 12th-13th century in origin.

Gully 8106 appeared to be slightly curved, it had a U-shaped profile, 0.73m wide by 0.30m deep (not illustrated). Within the arc of the gully were three substantial postholes; 8108, 8112 and 8114, that were strong indications of a timber-framed structure. All of the postholes had steep, near vertical sides (Fig 13, S10-12). Their dimensions varied with the smallest at 0.46m across and the larger two at 0.72-0.75m across, with depths of 0.39-0.68m. Fill materials were generally consistent between the three postholes and the gully, dark greyish-brown silty clay with black patches or charcoal flecks. Only one of the postholes was dated, 8108, however, the likelihood is that all three were contemporary with the gully. Posthole 8114 also produced a small hammerhead, which is of broadly medieval to post-medieval in origin (Fig 15).



Posthole 8114, Trench 81, with hammerhead, looking north-west Fig 15

Trench 82

Gully 8209 was one of three gullies that were grouped together at the south-east end of the trench. Gully 8209 lay east to west, whilst the two undated gullies were angled more towards the north-east to south-west alignment. Gully 8209 and 8205 were of similar proportions, 0.51-0.55m wide by 0.15-0.16m deep, each with rounded profiles. The undated gully was the earlier of the two (Fig 13, S18). The other undated gully, 8211, which lay parallel to gully 8205, was of similar depth but was 0.91m wide. The fills of the three features comprised similar mid-greyish brown silty clay, with enough charcoal flecks to suggest some small fires in regular use nearby.

Ditch 8214 produced the widest variety of medieval sherds, these broadly share a cross-over period in the late 12th century, although many continued to be manufactured much later. The ditch was aligned east to west and had very distinct, steep sloping sides, with a narrow uneven base (Fig 13, S16; Fig 16). A slight variation in the fill towards the base, and along the lower sloping (north) side, indicated that some material may have accumulated from water standing in the ditch. The majority of

the upper fill, however, comprised dumping of materials in which the pottery and bone had been present.

The very edge of a possible ditch, 8221, on the north-east side of the trench, cut the Anglo-Saxon feature (Fig 13, S20; Fig 14). The true dimensions of the ditch could not be determined; however, the fill comprised firm orange-grey silty clay with frequent chalk and charcoal flecks, 0.23m thick, and was probably close to domestic occupation. This feature is the latest of the medieval features to be dated, broadly within the 12th to 14th centuries.



Ditch 8214, Trench 82, looking west Fig 16

5 THE FINDS

5.1 Worked flint by Yvonne Wolfram-Murray

The worked flint is from a combination of machine excavated trial trenches and hand-dug test pits. The test pits were located over a known flint scatter, identified from past fieldwalking by Manshead Archaeological Society (Hudspith 1991). In total 20 pieces of prehistoric worked flint were recovered as residual finds in later period features and in the topsoil. The assemblage comprises 14 flakes and six blades.

The raw material comprises vitreous flint ranging from light to dark grey and brown colours and one mid-grey to greyish-brown granular flint. The quality of the raw material is mixed, the flint is good quality but occasionally poor quality flint was utilised. The flint has a thin to thick, weathered or abraded cortex of light to dark brown colour, with occasional white patination. The beige cortex that is present on one flint is thick and abraded. The raw material is likely to be derived from local sources.

The worked flint recovered from the features is in fair condition with artefacts showing post-depositional edge damage consisting of occasional to moderate amounts of nicks to the edges, occasional crushing of the edges was also observed. The flints recovered from the test pits in the topsoil are in poor condition with frequent nicks to the edges and heavy crushing of the edges on some pieces. Patination is present on

all but one flake with light greyish-blue discolouration to completely white. One burnt flint flake is noted, with thermal pot lid fractures evident.

The assemblage comprises un-retouched waste flakes and blades. This includes 14 flakes, of which six are broken, and six blades, of which three are broken. Post-depositional edge damage obscured evidence for utilisation.

The worked flint is broadly prehistoric but not directly dateable. There were two areas of worked flint recovery (Figs 2 and 4). Over the known flint scatter, east of Grove Farm, test pit 6 and trench 54 recorded three pieces, a short distance to the west test pits 13, 16, 21, 22, and 24-26 and trench 56 revealed eight worked flints. Further east, in the vicinity of the M1 Junction 11a, trenches 73, 81, 82, 87 and 88 recorded the remaining nine pieces of worked flint.

5.2 Late Iron Age and early Roman pottery by Andy Chapman

Features in trenches 76, 82, 87, 88 and 92 produced a total of 38 sherds, weighing 626g, of mixed hand-built and wheel-finished pottery that can be dated to the late Iron Age/early Roman period, spanning the early to middle decades of the 1st century AD (Table 2).

Table 2: Quantification of late Iron Age/early Roman pottery

Fabrics	Fabric 1: shelly		Fabric 2: grog		Fabric 3: sandy		Totals	
	No	Weight (g)	No	Weight (g)	No	Weight (g)	No	Weight (g)
7604/7605 gully	-	-	1	1	-	-	1	1
8215/8216 gully	1	2	-	-	1	1	2	3
8704/8705 gully	1	3	-	-	1	3	2	6
8802 subsoil	-	-	-	-	2	11	2	11
8804/8805 gully	-	-	2	5	2	4	4	9
8810/8811 quarry	-	-	-	-	1	2	1	2
9204/9205 ditch	6	100	-	-	1	70	7	170
9206/9210 ditch	-	-	1	22	6	33	7	55
9207/9210 ditch	9	360	-	-	3	9	12	369
Totals	17	465	4	28	17	133	38	626

Fabrics

The sandy fabric occurs most commonly, but the totals and percentages are skewed towards the shelly fabric by the presence of a single base from a large jar in a shelly fabric from ditch 9210. The fabric containing grog occurs in only three sherds.

Fabric 1, shelly:	containing some to sparse finely crushed shell 17 sherds (44.7%), 465g (74.3%)
Fabric 2, grog:	containing small rounded pellets of grog 4 sherds (10.6%), 28g (4.5%)
Fabric 3, sandy:	containing sand, with the presence of rounded quartz grains 17 sherds (44.7%), 133g (21.2%)

Forms and chronology

The assemblage contains sherds from both hand-built and wheel-finished vessels. The small groups contain little diagnostic material, although from fill 8804 of gully 8805

there is a sherd from a thick-walled, 9mm thick, hand-built vessel containing grog and a thin-walled sherd from a wheel-finished bowl in a uniform grey sandy fabric with a bead rim. Similarly, fill 8704 of gully 8705 contains body sherds from a shelly hand-built vessel, 6mm thick, and a thin-walled sherd, 2-3mm thick, from a wheel-made vessel.

From fill 9204 of ditch 9205, there is a flat base from a shelly vessel, probably hand-built and a foot-ring ring base, wheel-turned in a uniform grey fabric. From fill 9207 of ditch 9210 there is much of the flat base, in a shelly fabric, from a jar with light orange-brown oxidised surfaces, and some grey thin-walled sherds, one of which has combed decoration.

While this small assemblage contains few diagnostic features, the mix of hand-built and wheel-finished vessels, the presence of a thin-walled grey bowl with a bead rim, comb scored decoration and a wheel-turned foot-ring base are all consistent with a tight date spanning the early to middle decades of the 1st century AD. Fill 9207 of ditch 9210 also produced part of quern (see below), which dates to the early Roman period.

5.3 Fired clay by Pat Chapman

One large fragment of fired clay, weighing 96g, and 15 small fragments, weighing 63g, are made from dense hard fine sandy dark orange-brown clay with small flint inclusions. The large sub-rectangular fragment, 75mm by 65mm by 20mm, is from fill 8810 of quarry pit 8811 and has one roughly-smoothed brown surface (trench 88). The small fragments from fill 9207 of ditch 9210 are irregularly-shaped with grey-brown surfaces (trench 92). These appear to be fragments of daub from structures of some kind.

5.4 Quern fragment by Andy Chapman

From fill 9207 of ditch 9210 (trench 92) there is a fragment from the circumference of an upper stone from a Roman flat rotary quern in Old Red Sandstone from the Forest of Dean, which is characterised by scattered inclusions of large quartz pebbles. The fragment forms 7% of the circumference of a stone that was c400mm in diameter and is 50mm thick at the circumference. It has a smooth concave grinding surface and an uneven dimpled upper surface and outer edge.

5.5 Anglo-Saxon pottery by Andy Chapman

From fills 8217 and 8218 in ditch 8219 there are 11 sherds, weighing 372g, from a single vessel. The fabric and surfaces are dark grey to grey-black and contain dense rounded to sub-angular quartz grains, 1-5mm in size. On the interior these protrude through the surface but the external surface has been wiped smooth, leaving the inclusions barely visible. The sherds vary in thickness from rounded body sherds, 8-10mm thick, to neck sherds, 6-8mm thick. The body sherds are plain and undecorated.

While this is a primary deposit, comprising large sherds and some smaller fragments, there are insufficient joining sherds to illustrate the profile, although it certainly comprised a rounded body and a concave neck with a simple rounded and slightly everted rim.

The fills of this feature also produced part of an annular fired-clay loomweight, a form characteristic of an early/middle Anglo-Saxon date in the 7th-8th centuries AD. The form and fabric of the pottery is also consistent with this date.

5.6 Loomweight by Tora Hylton

The remains of an Anglo-Saxon annular loomweight (only c25% survives) were recovered from the fill of ditch 8219 (Fig 17). The loomweight has been manufactured from poorly fired coarse clay, the exterior surfaces are oxidised (buff) and the core is blackish-grey. There is a D-shaped cross-section and available dimensions suggest that originally it would have measured c130mm in diameter, with the internal hole measuring c40mm in diameter. The piece displays similarities to Dunning's Type 2, which is referred to as 'intermediate', where the central hole is smaller than the ring of clay around it (Dunning *et al* 1959, 23-24). Loomweights of this type are generally recovered from Anglo-Saxon settlement sites dating to the 7th-8th centuries AD.



Anglo-Saxon annular loomweight,
Fill 8218, Ditch 8219 (scale 20mm)

Fig 17

5.7 Iron hammer by Tora Hylton

An iron hammer was recovered from the fill of posthole 8114, together with an undiagnostic fragment of iron. The hammer has a square-sectioned face and neck. The eye, through which the shaft would have been secured, and the opposing end are obscured by corrosion products, making identification difficult, therefore without X-ray it is difficult to determine if it is an incomplete claw hammer (one claw missing) or a medieval cross-pane hammer with curved profile (Goodall 1990, fig 60, 401). Typologically both these forms were in use from the medieval period onwards.

5.8 Medieval pottery by Paul Blinkhorn

The pottery assemblage comprises 37 sherds with a total weight of 229g and is largely 12th century in date. Pottery was recorded using the conventions of the Bedfordshire County Archaeological Type Series (Baker and Hassall 1977).

The pottery occurrence by number and weight of sherds per context by fabric type is shown in Table 3. Each date should be regarded as a *terminus post quem*.

The sherds are all fairly small, and probably the product of secondary deposition, but otherwise appear to be reliably stratified. The fabrics are all types which are well-known in the region (Blinkhorn 2005), with the whole medieval assemblage represented by unglazed jars and bowls, typical of the period.

Fabrics

- B01A T1 (2) type St Neots ware, cAD1000-1200, 14 sherds, 76g
 B07 medieval shelly ware, AD1100-1400, 5 sherds, 37g
 C03 fine sandy reduced ware, 12th-13th centuries, 10 sherds, 78g
 C12 Stamford ware, cAD900-1200, 3 sherds, 6g
 C59a coarse sandy ware, 12th-13th centuries, 3 sherds, 19g
 C60 Hertfordshire-type greyware, mid-late 12th to mid-14th centuries, 1 sherd, 5g

Table 3: Medieval pottery by number and weight(g) of sherds per context by fabric type

Fabric	B01A		B07		C03		C12		C59a		C60	
Fill/cut	No	Wt (g)	No	Wt (g)	No	Wt (g)	No	Wt (g)	No	Wt (g)	No	Wt (g)
8105/8106	1	1	-	-	1	1	-	-	-	-	-	-
8107/8108	-	-	-	-	5	39	-	-	-	-	-	-
8208/8209	-	-	-	-	1	4	-	-	3	19	-	-
8212/8214	13	75	5	37	3	34	3	6	-	-	-	-
8220/8221	-	-	-	-	-	-	-	-	-	-	1	5
Totals	14	76	5	37	10	78	3	6	3	19	1	5

6 THE FAUNAL REMAINS

by Adam Reid

A total of 3kg of animal bone was recovered from 14 different contexts by hand (Table 4). This material was assessed to determine the level of preservation, the taxa present and to inform on the potential for further work following published guidelines (EH 2014).

Table 4: Faunal remains identified by taxa

Context/feature	Cattle Bos	Pig Sus	Sheep/Goat Ovicaprid	Horse Equus	Large mammal	Medium mammal	Indet.	Totals
8113 / Ph 8114	-	-	1	-	-	3	-	4
8115 / Ditch 8116	-	1	6	-	-	8	-	15
8117 / Gully 8118	-	-	1	5	236	-	-	242
8206 / Pit 8207	1	-	1	-	-	-	-	2
8208 / Gully 8209	-	1	1	-	-	3	-	5
8210 / Gully 8211	-	-	-	-	3	8	-	11
8212 / Ditch 8214	1	2	-	-	2	-	-	5
8215 / Ditch 8216	-	-	1	-	-	4	-	5
8217 / Ditch 8219	2	1	3	-	8	11	4	29
8218 / Ditch 8219	-	-	-	-	1	-	-	1
8220 / Layer	1	-	-	-	1	-	-	2
8810 / Pit 8811	-	-	-	-	-	-	1	1
9204 / Ditch 9205	-	-	-	-	-	18	-	18
9207 / Ditch 9210	2	4	1	-	6	7	-	20
Totals	7	9	15	5	257	62	5	360

The bone was washed prior to analysis before being examined for signs of butchery and the state of epiphyseal fusion. Identifications were made with the aid of the MOLA

reference collection and published references (Hillson 1992; France 2009). Specimens that could not be identified were attributed, where possible, by size; large mammal (cattle, horse), medium mammal (sheep/goat, pig, dog) and small mammal (cat, rabbit). No micro faunal specimens were present.

Preservation

The state of preservation was variable, ranging from good (context 9207) to poor (context 9204). Nearly all of the specimens were fragmented and some specimens demonstrated signs of moderate surface abrasion, weathering and leaching. No evidence of butchery or gnawing was observed.

Identification and quantification

The fragmented nature of the assemblage made it difficult to identify a significant amount of the material and only 10% could be identified to taxa. The results of the analysis are presented in Table 4. The vast majority of the fragments recovered from context 8117 were cranial fragments of a large mammal. Only five of these could be conclusively identified as horse but it is likely that most of the unidentified large mammal fragments from that context were part of the same skull.

Conclusion

The material appears to derive mainly from domestic waste, with no suggestions of industrial activity. There is a suggestion that sheep or goats were utilised more frequently than cattle, but the assemblage is too small to derive any meaningful interpretations.

7 SUMMARY

Trial trench evaluations have identified localised archaeological survival at Thorn Farm, Grove Farm and Ch3670-3970, to the west of Sundon Road. These groups of features were anticipated by the forerunning WSI (HA 2014a-b), but fieldwork suggests that their distribution is probably more limited in extent than previously thought.

Where features survive they are fairly clear and distinct. Many features have some considerable size, suggesting that they represented boundaries or enclosures of some substance in antiquity. The quantities of finds were extremely low, and it is thought that none of these features lie in the immediate vicinity of domestic occupation. With such sparse dating evidence it is not possible to determine the periods for these features, but undated features are often prehistoric in origin, or can be Roman, medieval or post-medieval where they were located away from settlement.

Two main groups of features were identified to either side of Junction 11a. Features on the north-east side of the junction are likely to be of late Iron Age and Roman date, whilst those that were concentrated immediately to the north-west of the CCJV main compound included late Iron Age to Roman, Anglo-Saxon and 12th-century medieval features.

The late Iron Age and Roman evidence probably belongs to a former landscape of agricultural activity comprising field boundaries and small enclosures. The seemingly scattered distribution of features is probably a false impression that is the product of modern landscaping. Originally, before the M1 motorway was constructed, the hilltop may have been higher and it is known that an earlier compound lay adjacent to the motorway, on its south-west side, where the present CCJV main compound is located. Features of roughly contemporary date to either side of this area could easily belong to

the same distribution of activity with the central core removed by the modern developments. There has been no definitive evidence for domestic settlement; however, hilltop agriculture of this type would normally be associated with roundhouses that would have been the source of the pottery and food waste dumped nearby.

The Anglo-Saxon and 12th-century medieval activity is exclusively focused within the area to the north-west of the CCJV compound (Area G) and is in the immediate proximity of two properties at Hillcrest, fronting the road, south-east of Chalton. These two properties occupy small enclosures of their own, which, by their irregular form and area, appear to belong to an older layout of field boundaries than the more regular fields in the surrounding landscape. The hypothesis is that these two extant properties are the surviving remains of a medieval end to the village of Chalton, and that the unusual shape of the field where trenches 81-82 were located is derived from medieval land plots that have been subsumed into the modern pasture field between the village and the remaining two properties. Anglo-Saxon occupation may have preceded the formation of the village end, in the typically dispersed manner of 7th to 8th-century settlement patterns. The Anglo-Saxon and medieval evidence should therefore be fairly limited in extent, although there is potential that some of the features that were encountered may relate to structures with associated craft, agricultural or domestic activities.

BIBLIOGRAPHY

- Baker, D, Baker, E, Hassall, J, and Simco, A, 1979 Excavations in Bedford 1967-1977, *Bedfordshire Archaeol*, **13**, 147-239
- Baker, E and Hassall, E, 1979 The pottery, in Baker *et al* 1979, 147-239
- BCAS 1993 *M1 Widening Junctions 10-15: Bedfordshire Part IV Artefact Collection Survey*, Bedfordshire County Archaeology Service
- BCAS 1995 *M1 Widening Junctions 10-15, Archaeological Impact Assessment Stage 4 Evaluation results*, Bedfordshire County Archaeology Service report, **95/22**
- BGS 2001 *Solid Geology Map, UK South Sheet*, British Geological Society
- Biddle, M, 1990 Object and economy in medieval Winchester: Artefacts from medieval Winchester, *Winchester Studies*, **1**
- Blinkhorn, P, 2005 The Saxon and medieval pottery, in Maull and Chapman 2005, 53-70
- Brown, J, 2014 *An interim report for continuing archaeological trial trench evaluation for the A5-M1 Link Road*, MOLA Northampton report, **14/254**
- Brown, J, 2015 *A summary of the January-February archaeological trial trench evaluation for the A5-M1 Link Road*, MOLA Northampton report, **15/39**
- Brown, N, and Glazebrook, J, (eds) 2000 *Research and Archaeology: A Framework for the Eastern Counties, 2, Research agenda and strategy*, East Anglian Archaeol, Occasional Paper, **8**
- CIfA 2014a *Code of Conduct*, Chartered Institute for Archaeologists
- CIfA 2014b *Standards and guidance for the collection, documentation, conservation and research of archaeological materials*, Chartered Institute for Archaeologists
- CIfA 2014c *Standard and guidance: Archaeological field evaluation*, Chartered Institute for Archaeologists
- DCLG 2012 *National Planning Policy Framework*, Department of Communities and Local Government
- Duncan, B, 2011 *Archaeological Archives: a guide to best practice in creation, compilation, transfer and curation*, Archaeological Archive Forum
- Dunning, G C, Hurst, J G, Myres, J N L, and Tischler, F, 1959 Anglo-Saxon pottery: a symposium, *Medieval Archaeology*, **3**, 1-78
- EH 1991 *Management of archaeological projects*, second edition (MAP2), English Heritage
- EH 1997 *English Heritage Archaeology Division Research Agenda*, English Heritage
- EH 2006 *Understanding Historic Buildings: A guide to good recording practise*, English Heritage
- EH 2007 *Understanding the archaeology of landscapes: a guide to good recording practice*, English Heritage
- EH 2008 *Management of Research Projects in the Historic Environment, PPN3: Archaeological excavation*, English Heritage
- EH 2011 *Environmental Archaeology: A Guide to Theory and Practice for Methods, from sampling to post-excavation*, English Heritage
- EH 2014 *Animal bones and Archaeology: Guidelines for best practise*, English Heritage
- Fairclough, J, 2015 *Archaeological evaluation at Luton Road, Luton, Bedfordshire*, MOLA Northampton report, **15/63**
- France, D L, 2009 *Human and nonhuman bone identification: A colour atlas*, London: CRC
- GA 1993 *M1 Widening Junctions 10 to 15, Geophysical Surveys between MP64/40 and MP82/80*, GeoQuest Associates
- Goodall, I H, 1990 Woodworking tools, in Biddle 1990, 273ff
- HA 2006a *M1 Widening Junctions 10 to 13, Cultural Heritage Stage 3, Baseline Report*, Highways Agency report, **D110842/05/04c**
- HA 2006b *A5/M1 Link Road Cultural Heritage Walkover Survey*, Highways Agency, report **D110843/05/02**

- HA 2007a *A5-M1 Link (Dunstable Northern Bypass): Archaeological monitoring of Geotechnical Test Pits*, Highways Agency report, **D110843/05/10**
- HA 2007b *M1 Widening Junctions 10 to 13, Re-use of HA LiDAR Data for Archaeological Assessment: Stage 2*, report **D110842/05/36**
- HA 2014a *A5-M1 Link Detailed Design: Written Scheme of Investigation, Archaeological Evaluation Surveys*, Highways Agency report, **47068494-URS-05-RP-EN-002-1F**
- HA 2014b *A5-M1 Link Detailed Design: Written Scheme of Investigation, Archaeological Evaluation Surveys*, Highways Agency report, **47068494-URS-05-RP-EN-002-2F**
- HA 2015 *A5-M1 Link Detailed Design, Written Scheme of Investigation for Detailed Archaeological Excavation and Watching Brief*, Highways Agency report, **47068494-URS-05-RP-EN-007-4F**
- HE 2015a *Management of Research Projects in the Historic Environment, The MoRPHE Project Manager's Guide*, Historic England
- HE 2015b *Where on Earth Are We? The Global Positioning System (GPS) in archaeological field survey*, Historic England
- Hillson, S, 1992 *Mammal bones and teeth: An introductory guide to methods of identification*, London: Chartered Institute of Archaeology
- Hudspith, R E T, 1991 *Fieldwalking at Houghton Regis and Caddington, South Bedfordshire, 1988-90*, *Bedfordshire Archaeology*, **19**
- LAT 1983 *Soils of Eastern England*, **4**, Scale 1:250 000, Lawes Agricultural Trust
- LC 2013 *Procedure for preparing archaeological archives for deposition with Luton Culture*, Arts, Libraries & Museums, Luton Culture
- Maull, A, and Chapman, A, 2005 *A medieval moated enclosure in Tempsford Park*, *Bedfordshire Archaeol monog*, **5**
- Medlycott, M, 2011 *Research and Archaeology Revisited: a revised framework for the East of England*, *East Anglian Archaeology, Occasional Paper*, **24**
- Medlycott, M, and Brown, N, 2008 *Revision of the Regional Archaeological Framework for the Eastern Region*, Association of Local Government Archaeological Officers
- MGC 1992 *Standards in the Museum care of Archaeological Collections*, Museums and Galleries Commission
- MOLA 2014 *Archaeological fieldwork manual*, MOLA Northampton
- NA 2006a *M1 Widening, Junctions 10-13, Bedfordshire. Cultural Heritage Surveys Stage 3: Archaeological Fieldwalking Survey (Int.15)*, Northamptonshire Archaeology report, **06/153**
- NA 2006b *M1 Widening, Junctions 10-13, Bedfordshire, Cultural Heritage Surveys Stage 3: Archaeological Geophysical Survey (Int.17)*, Northamptonshire Archaeology report, **06/162**
- NA 2008a *M1 Widening, Junctions 10-13, Bedfordshire, Cultural Heritage Surveys Stage 3, Additional Archaeological Geophysical Survey (Int.28)*, Northamptonshire Archaeology report, **08/08**
- NA 2008b *Geophysical Survey for A5-M1 Link Road, Dunstable Northern Bypass, Bedfordshire, April-December 2007*, Northamptonshire Archaeology report, **08/23**
- NA 2008c *M1 Widening, Junctions 10-13, Bedfordshire. Cultural Heritage Surveys Stage 3: Archaeological Fieldwalking Survey (Int.29)*, Northamptonshire Archaeology report, **08/24**
- NA 2008d *A5-M1 Link Road, Dunstable Northern Bypass, Bedfordshire: Trial trench evaluation, November-December 2007*, Northamptonshire Archaeology report, **08/172**
- Oake, M, 2007 *Research Agenda and Strategy*, in M Oake et al, 7-20
- Oake, M, Luke, M, Dawson, M, Edgeworth, M, and Murphy, P, 2007 *Bedfordshire Archaeology Research and Archaeology: Resource Assessment, Research Agenda and Strategy*, *Bedfordshire Archaeol monog*, **9**
- Stratascan 1993 *A Geophysical survey carried out at M1 Junctions 10-12 (Section A), February-May 1993*, Stratascan

Stratascan 1994 *Additional geophysical survey Field 133 and Field 121*, Stratascan
Walker, K, 1990 *Guidelines for the preparation of excavation archives for long term storage*, United Kingdom Chartered Institute for Conservation
Watkinson, D, and Neal, V, 2001 *First Aid for Finds* (3rd edition, reprinted), United Kingdom Chartered Institute of Conservation



MOLA
Bolton House
Wootton Hall Park
Northampton
NN4 8BN
01604 700 493
www.mola.org.uk
sparry@mola.org.uk