West Deeping (King Street), Lincolnshire

Watching Brief and Excavations: Underground Cables

Interim Report

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Watching Brief and Excavations at West Deeping (King Street), Lincolnshire: Underground Cables

INTERIM REPORT

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March 2010

Report Number: 936

CONTENTS

Summary

An archaeological watching brief was carried out by Cambridge Archaeological Unit between March and August 2009 on behalf of Integrated Utility Services (IUS) during the excavation for underground cables on land north of West Deeping, Lincolnshire, centred on NGR 510938 309863. This watching brief is situated within the Cemex Quarry where a previous evaluation (Patten 2002), and subsequent 1st phase of excavation (Murrell 2010). In total 0.283 hectares were excavated along the 1746m long cable route.

The investigation produced a quantity of artefacts within features from the Bronze Age, Iron Age, Romano-British, Early Medieval and post-Medieval periods. This activity has been given context and has been dated using information from previous investigations and the extensive landscape survey undertaken in the vicinity.

This activity included a co-axial Bronze Age ditch system, a triple Iron Age ditch system, and substantial Roman road side activity including; quarry pits, inhumations containing military issue metal adornments within roadside ditches, and large stone lined postholes probably from buildings. The sections of the roadside activity related to settlement were capped by a 'dark soil' layer which contained abundant material culture

The results of this investigation revealed significant evidence of Roman roadside activity. As a result of the intrusive nature of this investigation (underground cables) and 'safe stand-off' required, this Roman roadside activity is not likely to be exposed within future phases of excavation at King Street

Acknowledgements

The excavation was funded by Integrated Utility Services (IUS), with on site coordination provided by Liam and Tim Scott. The site was machined by Kevin, Alan, Darren, and Dave of IUS. Louise Jennings from Lincolnshire County Council monitored the project.

The site was recorded at various times by Selina Brierley, Nick Overton and Andrew Whelan. The site was surveyed by Donald Horne and digitised by Donald Horne and Iain Forbes. Finds were washed and catalogued by Jason Hawkes, Ilanith Pongolini and their team. Environmental samples were processed by Frankie Cox. The project manager was David Gibson.

1 INTRODUCTION

Between March and August 2009 a team from Cambridge Archaeological Unit (CAU) undertook a watching brief style investigation commissioned by Integrated Utility Services (IUS) during the excavation and re-interment of ground for underground electricity cables. Although this was a separate and distinct project funded by IUS, the research agenda aims for the Cemex quarry remain valid (Gibson 2009). The excavation took place on land north of West Deeping, Lincolnshire at NGR 511071 310555 in the north to NGR 510970 309430 in the south western corner and covered 0.283 hectares over a trench length of 1746m.

1.1 Topography and Geology

The cable route was located immediately north of the village of West Deeping and directly to the east of the Roman road King Street, Lincolnshire at a height between 9.35m OD in the north and 11.52m OD in the south (modern ground surface). The cable was situated within a block of arable farmland bounded to the west by Tallington Lakes and King Street, to the east by more farmland, to the north by the Greatford Cut and to the south by the A16 Stamford Road. The River Welland flows approximately 1km south of the cable route (Figure 1)

The predominant soil is a slightly calcareous, fine loamy clay (the Barnack variety) of the Badsey series; this overlies 1st terrace river sands and gravels which in turn overlie a uniform layer of Oxford Clay (British Geological Survey, 1992).

1.2 Archaeological and Historical Background

Previous investigations have revealed archaeology from three broad periods: prehistoric (Early, Middle and Late Bronze Age, Iron Age) Romano-British and Medieval – post-Medieval. An evaluation was undertaken in 2002 (Patten) in order to answer a series of specific questions that had arisen as a result of the earlier desktop and geophysical surveys (Johnson 1998). The evaluation confirmed prehistoric activity from the Late Neolithic to the Iron Age (Figure 2)

The resulting excavation, Phase 1 of 19, (Murrell 2010), revealed prehistoric activity from the Late Neolithic to the Early Iron Age, as well as Romano-British and post-Medieval activity but the majority of the activity was dated to the Middle Bronze Age period. The earliest activity within the proposed extraction area (PEA) was a small burnt pit containing animal bone and a cluster of Late Neolithic/ Early Bronze Age burials containing worked antler and bone artefacts, which may have been covered by a burial mound.

The main phase of settlement activity within the PEA was Middle Bronze Age, dated by a significant quantity of Deverel-Rimbury pottery. The core component of this activity was a multi-phased droveway with attached enclosures and an associated field system. The droveway was accessed by numerous gated entranceways on both sides and a palisaded enclosure on its eastern side. Several small un-complex structures were also identified. Over 100 pits were revealed, the larger of which appeared to

have had multi uses; their primary use as watering holes/ wells was later replaced with the disposal of refuse. Two Middle Bronze Age pit burials were also recorded.

Late Bronze Age/ Early Iron Age activity was sparse and the phases not distinct enough, therefore is better described as post Middle Bronze Age. This took the form of several pits, a cremation and burial, and a partial ring ditch. It is likely that the current excavation area is on the periphery of a denser area of activity which lies further to the north. Similarly the Romano-British activity within the PEA is ephemeral, composed of superficial field systems (Area B) and an expanse of inter-cutting quarry pits in the far west of Area A, which lay adjacent to the Roman road; King Street. A series of post-Medieval drainage ditches were revealed across the entirety of site which truncated parts of earlier phases of activity.

2 RESEARCH AIMS AND OBJECTIVES

The main objective of the watching brief was to assess the extent, character and date of the archaeological deposits and features present along the length of the underground cable, informed by the extensive geophysical and desktop survey (Johnson 1998). The watching brief was carried out in line with objectives previously outlined in the OAA research agenda (Collcutt et al. 2001), emphasising particular research questions relating to the periods represented by the archaeological remains in the area.

- To retrieve data in order to further our knowledge of early developments from first clearance up to and including the Neolithic with special consideration for substantial cut features.

- To retrieve data from the Bronze Age agricultural landscape to enable a more detailed description of land use/land holding particularly aimed at the concept of communality and control.

- To investigate Bronze Age activity areas (settlement and burial sites) with particular interest in any association they have with the agricultural landscape.

- To investigate the demise of the Bronze Age organisation and the gap that appears in the landscape between the Bronze Age and Iron Age.

- To investigate the degree of rupture or continuity in landscape/land use across the Iron Age to Roman transition period.

- To retrieve data from the strong grouping of pit-form anomalies in order to further our knowledge of the assumed Roman road side development.

- To investigate the parallel-set structures suggestive of Medieval ridge and furrow and/or strip fields

- To establish the stratigraphic sequence of the site, the date of features and occupation horizons and the nature of the activities that occurred.

- To establish the archaeological potential of palaeoenvironmental deposits with particular interest in soils and sedimentology, pollen and macrofloral analysis including waterlogged wood

3 INVESTIGATION METHODOLOGY

All work was carried out in accordance with the standards and formats stipulated for Lincolnshire by Lincolnshire County Council (1997), and in strict accordance with statutory Health and Safety legislation, within CAU risk assessment, and with the recommendations of SCAUM (Allen and Holt 2002).

The methodology of trench excavation varied from the start to the end of the project, adapting to the changing circumstances of the insertion of the cable, but was predominantly as follows. Topsoil, subsoil and archaeological deposits were machined under archaeological supervision using a trenching bucket on a tracked 360° excavator. The site was metal detected before and during excavation, particularly when archaeological features were encountered. Exceptional features such as human remains were excavated by hand. All archaeological features revealed were immediately planned, recorded, photographed, sections were drawn and finds were collected. Surface finds (those recovered from the topsoil and subsoil) were numbered and their distance recorded. The ductings and the earth for the cables were then laid at the base of the trench and the open section of trench was backfilled immediately.

Pegs were placed every 50m along the length of the cable and at bends or changes in the alignment of the route. The outside trench edge was located using measurements off lines stretched between these points, the pegs were subsequently surveyed using a Leica 1200 series TPS (total station). The recording followed the CAU-modified MoLAS system (Spence 1990); assigning context numbers (e.g. [fill], [cut]) to stratigraphic units and feature numbers, F., to interrelated stratigraphic units (e.g. a ditch's cut and fills). Base plans were drawn at a scale of 1:50, and sections at 1:10. A photographic archive was also created, comprised of digital images.

The artefacts and accompanying documentary records have been compiled into a stable indexed archive. This is currently stored at CAU under the project code CQWD09. Within the text, the reference to a feature number (in the first instance) is marked in Bold (e.g. **F.101**).

4 RESULTS

The cable trench varied between 0.62m and 3m wide, but was predominantly 0.9m wide and varied between 0.9m and 1.65m deep but was predominantly 1.4m deep. Not all bases of features were revealed, however the majority were bottomed. For this interim report the results have been split roughly into categories according to their presumed activity and date. In total 512 contexts and 175 features were recorded. These comprised among other things 92 linears, 57 pits, 17 postholes, 2 inhumations, 1 cow burial, plus numerous layers including roads and 'dark soil'. Specific features that are discussed in the text are referred to by their distance (Figure 3).

A large assemblage of artefacts were recovered from these features, the majority of which are shown in table 1. 93% of the artefacts were from stratified contexts, only 7% of the finds recovered were from the topsoil and subsoil deposits. The ceramic assemblage potentially includes, Early to Late Bronze Age, Iron Age, abundant Romano-British, Early Medieval and post-Medieval pottery.

Material	Quantity	Weight (g)	Total Weight (g)
Pottery (All periods)	923	21323	24279
Human Bone	450	2888	2888
Animal Bone	2145	39141	42001
Worked Animal Bone	2	31	31
Metalwork	29	1894	2500
Slag	45	1154	1154
Worked Flint	17	97	160
Tile	42	3102	3416
Brick/ Tile	15	3256	3256
Worked & Burnt Clay and Furnace Waste	13	776	776
Worked Stone and Stone	43	13645	13645
Worked Wood	5	??	?
Shell	15	248	248
TOTAL	**3744**	**87555**	**94354**

Table 1: Summary of Artefacts
Key: Total Weight includes artefacts recovered from topsoil and subsoil deposits

Only the main groups of features have been considered in this interim report, much of the archaeology was inter-cutting and noticeably well stratified.

4.1 Co-Axial ditch system

The expected co-axial system (figure 2) was encountered three times within the cable trench, first situated at 890m-902m (between Corners 2 and 3) and again at 1157m-1165m (east of Corner 3). A second co-axial was identified at 1607m-1613m (between Corners 6 and 7) (figure 3). These ditches are presumed to be part of the Middle Bronze Age field system. However the dimensions of these ditches were similar to those identified in the 2007 excavation (Murrell 2010) and Trenches 3 and 4 of the evaluation (Patten 2002). It is likely that the co-axial system may have also been revealed immediately south of corner 5, however this requires further investigation.

4.2 Triple Ditch System

The expected triple ditch system (Figure 2) was encountered at 1070m-1103m (across Corner 4) and again at 1212m-1241m (immediately south of Corner 5) (Figure 3). These ditches are presumed to be part of the Iron Age field system. The bases of these ditches were not always reached within the limited confines of the trench.. The central ditch was the largest at 3m in width, this was also recorded when the triple ditch system was excavated in Trench 15 of the evaluation (Patten 2002).

4.3 Roadside activity

The most abundant activity along the cable route was that related to the Roman Road; known as King Street. A large quantity of inter-cutting quarry pits, at least 60 of which were identified at various points along the route. These were found in sporadic patches from 405m-490m and more intensely between corners 5 and 6 (1180m-1424m) where there was a continuous spread only breaking where there were earlier features, hence no gravel to extract. This spread of Roman Quarry pits was also identified in the 2007 excavation (Murrell 2010). The cluster at Corner 5 contained more artefacts than in other sections of the cable route, and pit/ well **F.630** located among this cluster contained metal finds including potential 'hippo sandles' and other copper objects.

These quarry pits are likely to have provided the gravel to facilitate the construction of the adjacent Roman road which was also identified at various points along the length of the cable trench. Roadside ditches together with the road surfaces were revealed intermittently as the cable trench followed the meandering edge of the field (Figure 2). Two inhumations were placed within the upper silts of the roadside ditch at 350m (Figure 3). No grave cuts were present however one of the individuals (burial 11), was accompanied by a knife and belt buckle which was spot dated as Late Romano-British and after initial examination appears to be military issue (G Appleby pers. comm.).

In addition to the road itself, abundant evidence of roadside settlement was also identified which demonstrated an urban like stratigraphy of inter-cutting features indicative of long term settlement. The majority of this settlement evidence was located between 680m- 823m (Corner 2).This took the form of potential ring gullies, possible beam slots, pits, posthole structures and large stone lined postholes indicative of a substantial building (Figure 3). Large pieces of building stone (S. Timberlake pers. comm.) were also found within some pits and later layers (see below).

4.4 Dark soil

A spread of slightly variable, but predominantly dark blackish brown, moderately firm, sandy silt containing abundant occupational debris and charcoal chunks and flecks was identified at various points along the main north-south stretch of the cable trench (432m-846m). This 'dark soil' lay beneath the protection of the topsoil and covered all phases of features underneath it, including all that is dated to the Romano-British period. The dark soil was present in patches, in roughly the same locations as the presumed Romano-British settlement evidence and became paler and thinner away from these features as is disappeared. It contained among other things pottery, animal bone, metalwork, worked stone and burnt clay. There were also large re-used building stones positioned within the layer, perhaps indicating a temporary trackway. This dark soil may represent a major burning episode linked to the re-establishment of the area in the Early Medieval period, post abandonment after the Romano-British period. This 'dark soil' is similar to the 'dark soil' identified at Stonald Field, (Gibson & Knight 2002), which appeared as a capping fill, infilling the hollows of the later Romano-British features. It is likely that the protection of the fields' edges have aided in the preservation of the dark soil.

4.5 Archaeological Exclusion Zone

As expected the pit cluster which extends south into and northeast out of the archaeological exclusion zone was encountered between 967m-975m (across corner 3) (Figure 3). The two pits and two postholes encountered are potentially Late Bronze Age/ Early Iron Age (M. Knight pers. comm.). Large quantities of animal bone were contained throughout the sequence of deposits, including the silty basal fills which were bulk sampled. A northwest–southeast aligned ditch was identified at 1079m (corner 4). This ditch corresponds with the results from the survey (Johnson et al 2001) which extends northwest into the archaeological exclusion zone where it turns to align northeast-southwest (Figure 2).

4.6 Drainage Ditches

As expected, drainage ditches were encountered along the length of the cable trench, although less densely than the geophysical survey (Johnson 2002) suggests. This is most likely due to the nature of this excavation and the difficulty in observing these features rather than that they don't exist. The alignments of the drainage ditches are not shown on Figure 3 however as with those exposed in the 2007 excavations (Murrell 2010) they are most likely Medieval in date.

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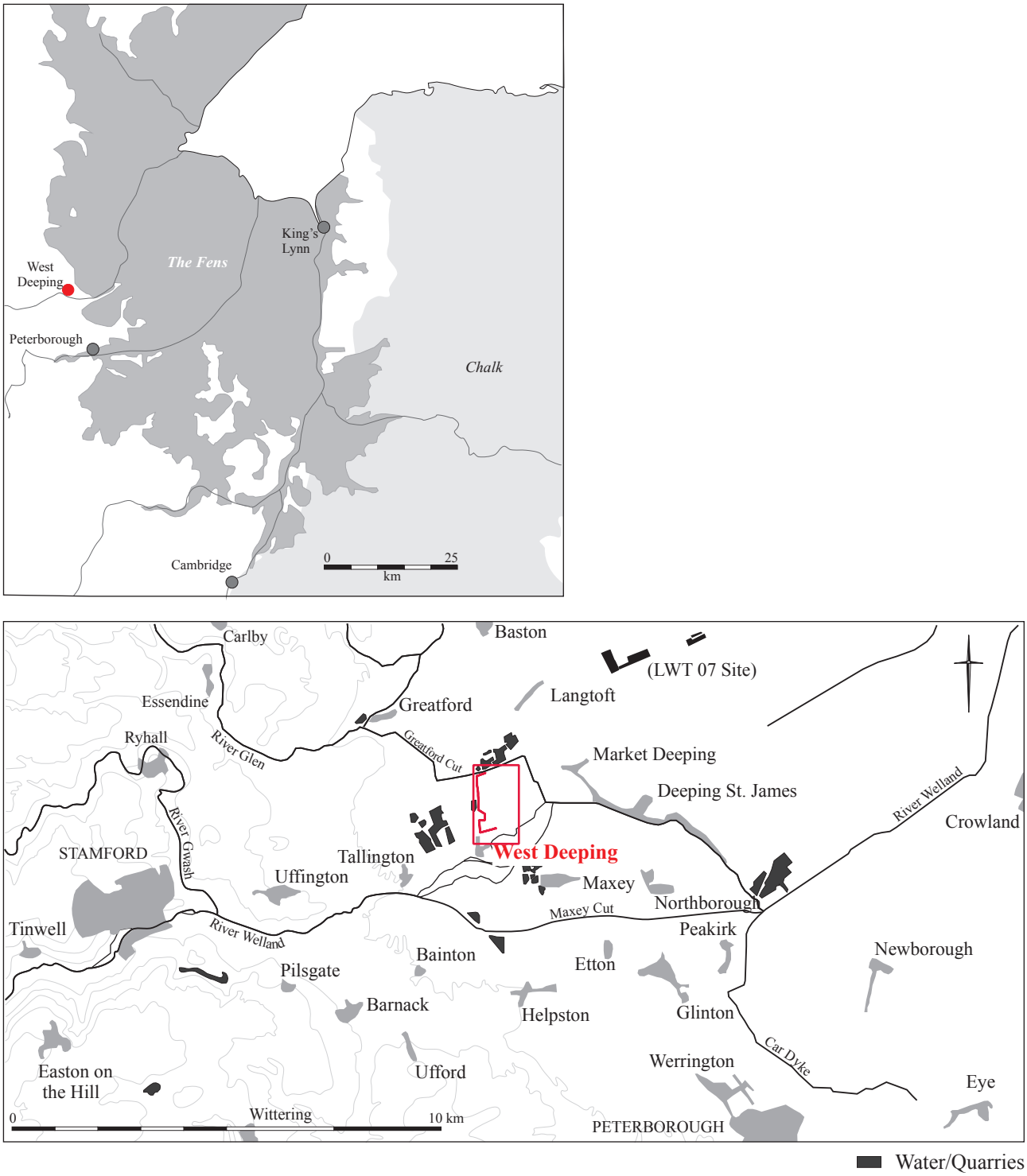


Figure 1. Site Location

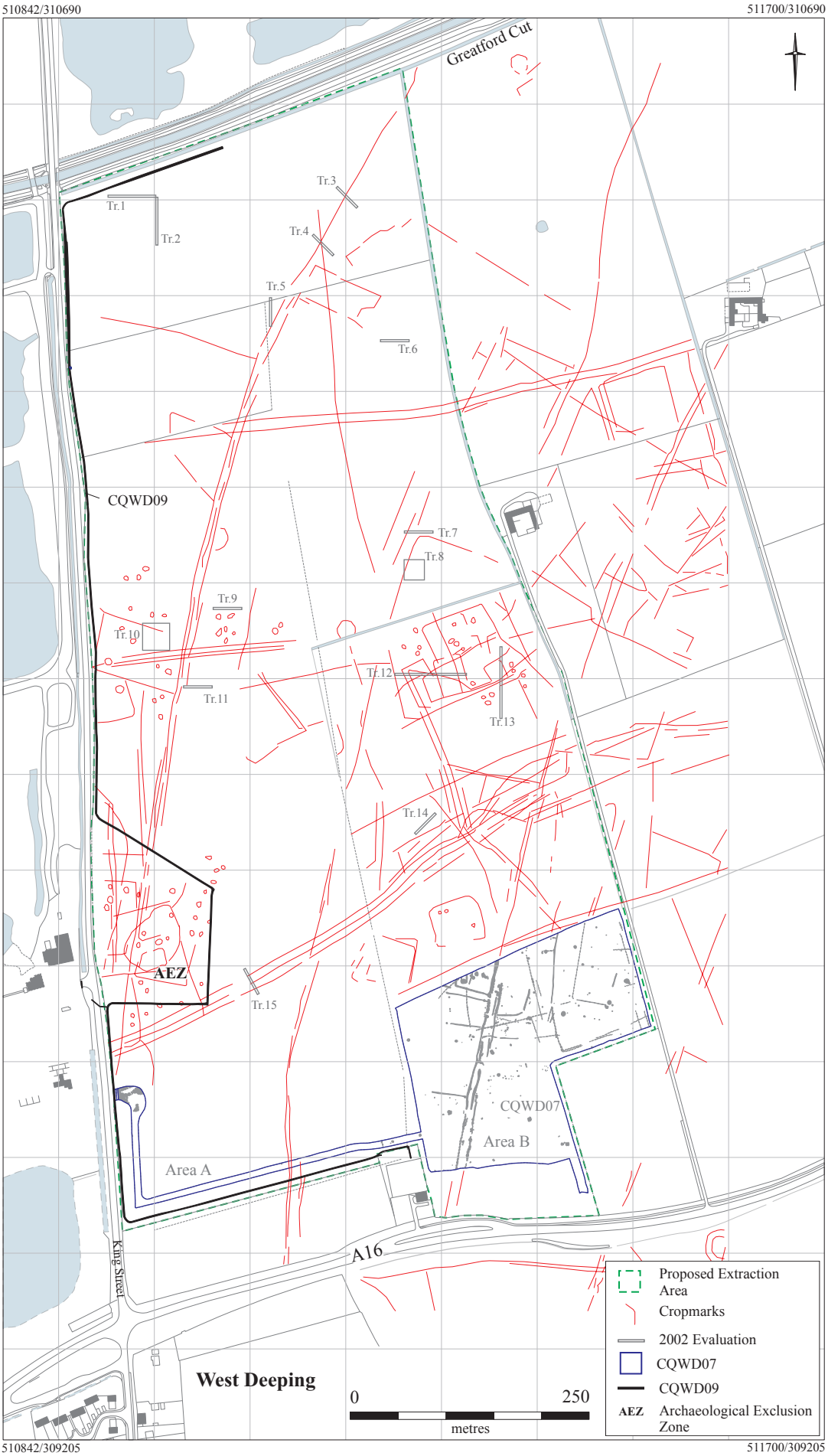
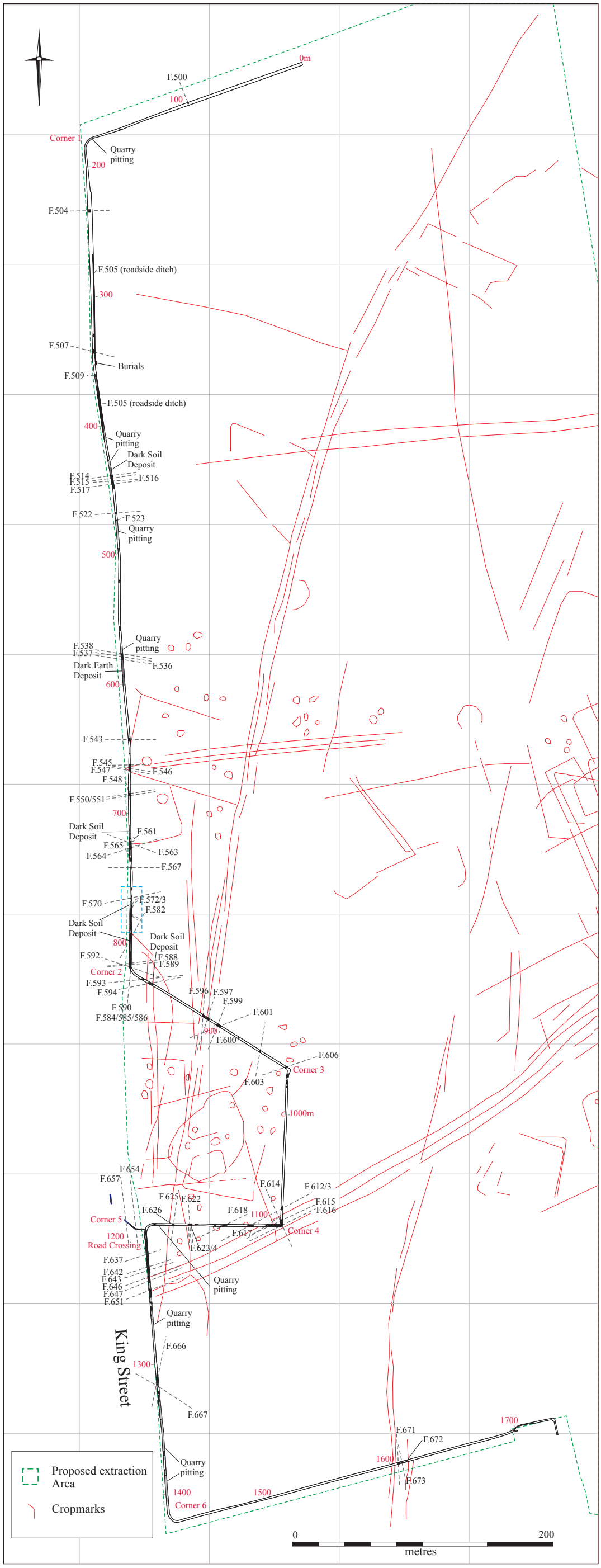
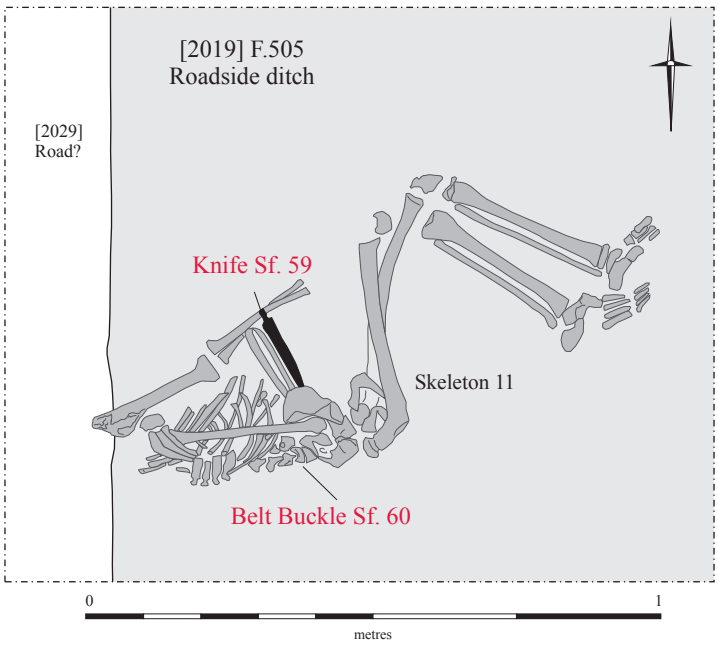
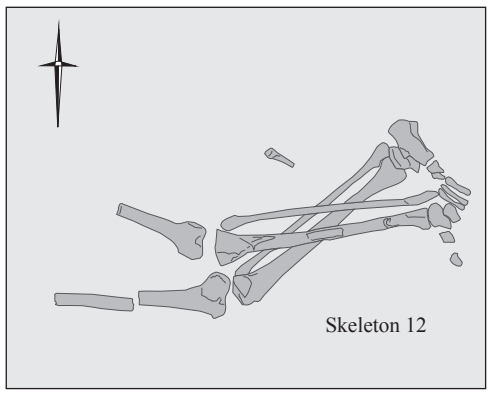
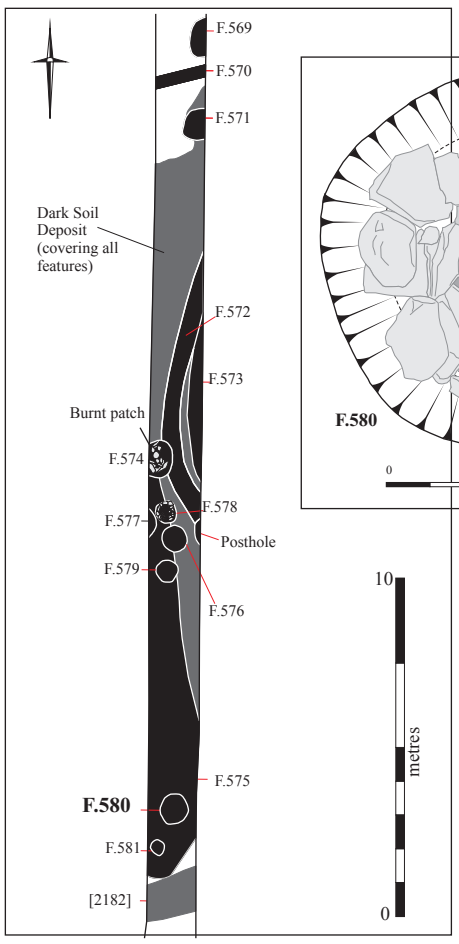


Figure 2. Situation within Proposed Extraction Zone with Previous Phases









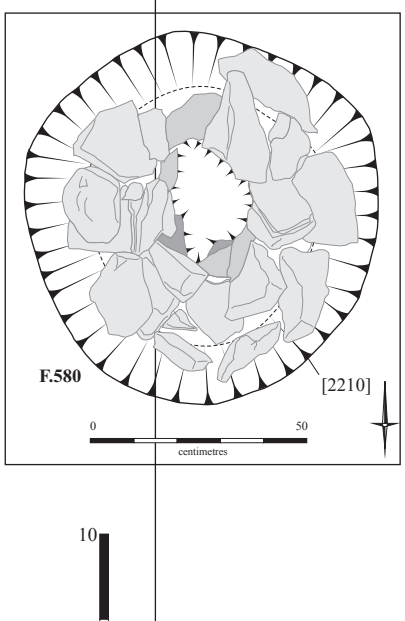


Figure 3. Results Summary

OASIS DATA COLLECTION FORM: England

OASIS ID: cambridg3-141012

Project details

Project name	Watching Brief and Excavations at West Deeping (King Street), Lincolnshire: Underground Cables
Short description of the project	An archaeological watching brief was carried out by Cambridge Archaeological Unit between March and August 2009 on behalf of Integrated Utility Services (IUS) during the excavation for underground cables on land north of West Deeping, Lincolnshire, centred on NGR 510938 309863. This watching brief is situated within the Cemex Quarry where a previous evaluation (Patten 2002), and subsequent 1st phase of excavation (Murrell 2010). In total 0.283 hectares were excavated along the 1746m long cable route. The investigation produced a quantity of artefacts within features from the Bronze Age, Iron Age, Romano-British, Early Medieval and post-Medieval periods. This activity has been given context and has been dated using information from previous investigations and the extensive landscape survey undertaken in the vicinity. This activity included a co-axial Bronze Age ditch system, a triple Iron Age ditch system, and substantial Roman road side activity including; quarry pits, inhumations containing military issue metal adornments within roadside ditches, and large stone lined postholes probably from buildings. The sections of the roadside activity related to settlement were capped by a 'dark soil' layer which contained abundant material culture The results of this investigation revealed significant evidence of Roman roadside activity. As a result of the intrusive nature of this investigation (underground cables) and 'safe stand-off' required, this Roman roadside activity is not likely to be exposed within future phases of excavation at King Street
Project dates	Start: 19-03-2009 End: 12-08-2009
Previous/future work	Yes / Yes
Any associated project reference codes	CQWD09 - Sitecode
Type of project	Recording project
Site status	None

Current Land use	Cultivated Land 2 - Operations to a depth less than 0.25m
Monument type	CO-AXIAL DITCH Bronze Age
Monument type	TRIPLE DITCH Iron Age
Monument type	QUARRY PITS Roman
Monument type	INHUMATIONS Roman
Monument type	ROADSIDE DITCHES Roman
Monument type	ROAD LAYERS Roman
Monument type	DARK SOIL Early Medieval
Monument type	PITS Late Bronze Age
Significant Finds	POTTERY Bronze Age
Significant Finds	POTTERY Iron Age
Significant Finds	POTTERY Roman
Significant Finds	POTTERY Early Medieval
Significant Finds	POTTERY Post Medieval
Significant Finds	HUMAN BONE Roman
Significant Finds	ANIMAL BONE Bronze Age
Significant Finds	ANIMAL BONE Roman
Significant Finds	METALWORK Uncertain
Investigation type	"Part Excavation","Watching Brief"
Prompt	Direction from Local Planning Authority - PPG16

Project location

Country	England
Site location	LINCOLNSHIRE SOUTH KESTEVEN WEST DEEPING West Deeping (Kind Street)
Postcode	PE6 9JB
Study area	0.28 Hectares
Site coordinates	TF 1093 0986 52 0 52 40 28 N 000 21 32 W Point
Height OD / Depth	Min: 9.35m Max: 11.52m

Project creators

Name of Organisation	Cambridge Archaeological Unit
Project brief originator	Local Authority Archaeologist and/or Planning Authority/advisory body
Project design originator	David Gibson
Project director/manager	David Gibson
Project supervisor	Kerry Murrell
Type of sponsor/funding body	Developer

Name of sponsor/funding body	Integrated Utility Services

Project archives

Physical Archive recipient	Cambridge Archaeological Unit
Physical Archive ID	CQWD09
Physical Contents	"Animal Bones","Ceramics","Human Bones","Industrial","Metal","Wood","Worked bone","Worked stone/lithics"
Digital Archive recipient	Cambridge Archaeological Unit
Digital Archive ID	CQWD09
Digital Contents	"Stratigraphic","Survey"
Digital Media available	"Images raster / digital photography","Spreadsheets","Survey","Text"
Paper Archive recipient	Cambridge Archaeological Unit
Paper Archive ID	CQWD09
Paper Contents	"Stratigraphic","Survey"
Paper Media available	"Context sheet","Drawing","Map","Notebook - Excavation',' Research',' General Notes","Photograph","Plan","Section","Survey ","Unpublished Text"

Project bibliography 1

Publication type	Grey literature (unpublished document/manuscript)
Title	Watching Brief and Excavations at West Deeping (King Street), Lincolnshire: Underground Cables; Interim Report
Author(s)/Editor(s)	Murrell, K.
Other bibliographic details	CAU Report Number 936
Date	2010
Issuer or publisher	Cambridge Archaeological Unit
Place of issue or publication	Cambridge Archaeological Unit
Description	14 page A4 document containing four colour plates (including 3 figures)

Entered by	Kerry Murrell (km404@cam.ac.uk)
Entered on	15 January 2013

OASIS: