Darwen Eastern Development Corridor, Lancashire

Archaeological Evaluation Report

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Darwen Eastern Development Corridor, Lancashire

Archaeological Evaluation Report

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Summary

During October 2018, Oxford Archaeology (OA) North undertook an archaeological evaluation at the site of the Darwen Eastern Development Corridor. The work was commissioned by Capita on behalf of Blackburn with Darwen Borough Council and followed a phase of non-intrusive geophysical and drone survey work. Four areas were excavated in order to investigate possible features identified during the previous survey, and potentially discharge planning conditions by determining the presence and survival of archaeological remains within the proposed development area. The work progressed without hindrance and identified a single archaeological linear ditched feature of likely late post-medieval or modern origin.

Acknowledgements

Oxford Archaeology (OA) North would like to thank Capita for commissioning this project on behalf of Blackburn with Darwen Borough Council. Thanks is also extended to Joanne Smith, who monitored the work on behalf of Lancashire Archaeological Advisory Service (LAAS), for her advice and guidance.

The project was managed for OA North by Dr. Adam Tinsley. The fieldwork was directed by Aidan Parker, who was supported by Steve Clarke and Andrew McGuire. Survey and digitizing was carried out by Aidan Parker, Andrew McGuire and Mark Tidmarsh. Thanks is also extended to the OA staff that prepared the archive under the management of Dr. Dot Boughton.

1 INTRODUCTION

1.1 Scope of work

1.1.1 Oxford Archaeology (OA) North was commissioned by Capita, acting on behalf of Blackburn with Darwen Borough Council, to undertake a trial trench evaluation at the site of the Darwen Eastern Development Corridor (DEDC), Darwen, Lancashire. The proposed development area (PDA) includes the construction of a single carriage road and associated drainage and landscaping works connecting the current streets of Ivison Road and Marsh house Lane (Figure 1).

1.1.2 The work was undertaken as a condition of Planning Permission (planning ref. 10/17/0638), imposed by representatives of the Lancashire Archaeological Advisory Service (LAAS), acting in their capacity as archaeological advisor to the Lancashire County Council. In response to the conditions, a Written Scheme of Investigation (WSI) was produced by OA North, amended September 2018, detailing the methodology to govern multiple programmes of evaluative fieldwork necessary to discharge those conditions. This document outlines how OA North implemented the fieldwork and the results it produced in relation to the trial trench evaluation only (see OA North 2018a for results relating to previous phases of mitigation).

1.2 Location, topography and geology

1.2.1 The PDA lies on the north-eastern fringe of the town of Darwen, Lancashire, with the centre of Darwen located approximately 1 mile to the south-west (Figure 1). The PDA comprises an irregular shaped linear block of land measuring approximately 700m long by 70m wide, covering an area of just over 4.5 hectares. It is situated at the base of a slope, rising from west to east, roughly between 200m aoD at its lowest point, and 250m aoD at its highest.

1.2.2 The impact area formerly comprised mostly rough pasture, with known waterlogged areas at the base of the slope, opening to more curated fields further to the east, although at the time of this phase of works a good portion of the PDA had been subject to ground works associated with the development, with limited areas, primarily to the west of the area, available for trenching. To the west, north and south it is bounded by a range of densely populated residential streets, and is bisected by the line of Ellison Fold Lane, which extends east/west across and to the south of the center of the site.

1.2.3 The geology of the area is mapped as siltstone and sandstone of the Pennine Lower Coal Measures Formation, with an outcropping of the Milnrow Sandstone Formation (BGS 2018). Local soils include freely draining, slightly acidic loam with sand and gravels (Cranfield 2018)

1.3 Archaeological and historical background

1.3.1 A resource assessment of known archaeological assets and the state of current understanding relating to those assets and their implication for the survival and identification of unknown resources, set against their research potential by period, has been conducted in relation to the region of North-West England as a whole (Brennand

et al 2006). The following presents a brief summary of the archaeological potential of the PDA, based partly upon the implications of this wider resource assessment and the limited information currently available in relation to the PDA itself, augmented by a cursory examination of available information held by the Historic Environment Records office (HER). This has identified three principle periods of archaeological interest in relation to the potential of the PDA, as summarised below

1.3.2 ***Prehistoric Period (2.5 million years BP- 800 bc)***: the earliest human activity within northern Britain probably followed the retreat of the ice sheets around 10,000 BC, as small nomadic groups gradually moved north with the improving climate. Prior to this, evidence for proto-human and human activity during the Palaeolithic period (2.5 million years to 10,000 bp) is sparse across both the nation and region as a whole, and no evidence for such activity has been identified in the vicinity of the PDA.

1.3.3 The subsequent post-glacial landscape largely comprised treeless tundra, but by the Mesolithic period (8,000- 4,000 bc), this gave way to increasingly well-established woodland as the climate improved. Such environmental change increased the potential for human activity as the spread of woodland led to the expansion in animal and plant resources. These resources were necessarily exploited by Mesolithic peoples on a seasonal basis employing a mobile hunter-gatherer economy. The nomadic nature of the Mesolithic groups meant that they left few remains and archaeological evidence for this period is largely limited to finds of flint implements (Manby 2003; Hodgson and Brennand 2006). No activity relating to the Mesolithic period is known within the immediate environs of the PDA.

1.3.4 The Neolithic (4,000-2,500 bc) and early Bronze Age (2,500-800 bc) periods are traditionally seen as marking the introduction of farming, as nomadic hunter-gatherer subsistence gradually gave way to agriculture and the domestication of animals. The population probably remained semi-nomadic during much of the Neolithic. Throughout the North-West of England this semi-nomadic existence was probably aided by the close juxtaposition of a variety of upland, wetland and dry land environments, each offering a range of different seasonal resources (Hodgson and Brennand 2006). Sites of this period are typically represented by scatters of flints, pottery and burnt stone often associated with single or multiple pit deposits. The period may also be broadly characterised by the introduction of large ceremonial and funerary monuments. No sites of Neolithic origin are known from the immediate vicinity of the PDA, but given the nature and composition of such sites there exists a potential to encounter such remains.

1.3.5 The Bronze Age by comparison witnesses an intensification of agricultural practices with increasing clearance of woodland and the establishment of rudimentary field systems, as well as the emergence of small nucleated settlement with evidence for more identifiable domestic as well as ritual structures (ibid). In this regard, a Bronze Age barrow was excavated during the latter half of the nineteenth century, approximately 1.3 miles to the south-west of the PDA, at Ashleigh Street, Whitehall. This produced evidence of numerous burials accompanied by a series of Collared Urn vessels, currently on display in Darwen Library, and other material artefacts consistent with an Early to Middle Bronze Age date (2500-1500 BC). The presence of the barrow indicates the area of Darwen held some significance during early prehistoric periods.

While no features of prehistoric date have been previously identified in the PDA, given the size of the development there is therefore potential that prehistoric archaeology may be revealed.

1.3.6 **Iron Age and Romano-British Period (800 bc-410 AD)**: by the Iron Age (800 bc- AD 43) a near fully sedentary and agricultural system had developed across Britain, with typical settlement patterns comprising mainly small rural farmsteads surrounded by field systems and enclosures, linked together by trackways (Haselgrove 1999; Hodgson and Brennand 2006). However, by comparison with other regions of Britain, the North-West has relatively few known sites associated with this period, leading to suggestions of a relatively shallow settlement hierarchy (Hodgson and Brennand, 2006). It certainly lacks the highly visible and extensively documented field systems and settlement enclosures known across much of Yorkshire and Lincolnshire (Riley 1980), for example. In addition, the few sites that have been identified and excavated by chance, have revealed a general dearth of material culture (Hodgson and Brennand 2006), although this can also be said of areas such as Yorkshire, where the visible traces of settlement are more pronounced. There is no known evidence relating to the Iron Age within the PDA, but, given the size of the development area there is potential to encounter such remains.

1.3.7 By the later Iron Age period, the study area is thought to have fallen within the territory controlled by the Brigantes. The Brigantes were initially allied to the Romans under their Queen Cartimandua and after the initial success of the Roman invasion of Britain in AD 43 maintained a border with the Roman Empire fixed roughly along the course of the River Don. In AD 69, a dispute between Cartimandua and her former consort Venutius, provided the pretext for Roman invasion, which began soon after and was consolidated by AD 72 with the creation of a number of linked forts throughout the north of England (Ottaway 2003; Philpot 2006). Key to this network were a system of military roads linking various forts and settlements established throughout the country and formed the focus for much subsequent activity (Margery 1973). However, beyond the often highly visible and relatively well documented remains of the Roman military establishment within the North-West region, evidence for civilian settlement and subsistence is rather vague and ephemeral, consisting of exiguous traces of rural settlements, often heavily truncated by the plough, and generally difficult to detect, normally lacking the more easily identifiable stone foundations of military construction (Philpot 2006). With this said, the development of aerial photography since the second world war, and, more recently, the development and application of geophysical survey techniques, has led to the increasing identification of many sites, although these largely remain unexcavated and therefore poorly dated and understood (ibid).

1.3.8 In relation to the PDA, the line of a Roman Road, extending between the former settlements at Manchester and Ribchester (Road 7b, Margery 1957: HER Reference PRN 15506 AND prn 26144), is known to run roughly south-east/north-west, several hundred meters to the east of the PDA, roughly corresponding to the current line of Blacksnape Road. In addition, several find spots relating to the Romano-British period are know from the general area of the PDA, including the recovery of a Roman cinerary urn (PRN 7256), and both a Roman coin and Milestone (PRN176). No finds of Romano-

British origin have been recovered from directly within the PDA, however, given the scale of the development and proximity to the Roman Road, there is a potential for further finds and features relating to this period.

1.3.9 **Industrial Period (AD 1760-1900)**: the Industrial Revolution embodied the transition to new manufacturing processes in the period from about 1760 to 1840 and beyond. This transition included progression from hand production methods to increasingly mechanistic modes of production, new chemical manufacturing, and iron production processes, the increasing use of steam power, the development of machine tools, and the rise of the factory system. At the fore front of such developments was the textiles industry, in terms of employment, value of output and capital invested, and it was in this and associated industry and fuel supply systems that modern production methods were first introduced. The onset of industrialisation also brought about unprecedented social and environmental change with a rapid urbanisation of the population, the development and widespread initiation of new infrastructure, and radical changes to land use, reclamation, and agricultural production (McNeil and Newman 2006).

1.3.10 Due to a combination of conducive conditions, including readily available skilled workers, power sources, strategic resources, and a pool of unskilled labour, Lancashire became the focus and centre of the industrialisation of the textile industry. The rapid growth or subsequent birth of many of its significant towns and cities owes much to this process and the development of associated coal fields.

1.3.11 Like many towns in Lancashire, Darwen was a centre for textile manufacture during this period. Indeed, Samuel Crompton, inventor of the spinning mule, lived there for part of his life, and numerous textile mills, including the India Mill, built by the Eccles Shorrock & Company, became the focus of the town. The rapid industrialisation of the area provided the catalyst for further development, as necessary infrastructure was introduced in the form of rail links and the Leeds and Liverpool Canal arriving in the middle of the nineteenth century. Indeed, the prosperity that such development brought allowed Darwen to become one of the first places in the world to be serviced by steam trams. As a consequence, much of the town was built between about 1850 and 1900, with place names, date stones in terraces, and the vernacular architecture of cellars, local stone, and locally-made brick reflecting this.

1.3.12 The majority of references to find spots of archaeological interest within the general area of the PDA primarily relate to this period and undoubtedly reflect the rich industrial heritage of the wider area and the rapid development of Darwen during this period. With this said, the only features identified within the PDA relate to a series of coal pits, probably associated with the former Ellison Fold Colliery, identified on the First Edition Ordnance Survey Map of 1849 (PRN20400). It is unclear from this reference if the numerous pits relate to former mine shafts, or smaller scale earthworks, such as bell pits. Given the density of historical locations in the general area of the PDA further features relating to this period may also be present across the site. A phase of geophysical and topographical survey was undertaken by OA prior to the trench evaluation, this identified a number of potential linear features within the PDA which were thought to have the potential to be of archaeological interest.

1.3.13 **Archaeological background**: Prior to the current development no archaeological works had been undertaken within the PDA. As part of the development a phase of geophysical and topographical survey was undertaken by OA North as an initial form of evaluation (OA North 2018). This identified a number of potential linear features within the PDA which were thought to have the potential to be of archaeological interest.

2 EVALUATION AIMS AND METHODOLOGY

2.1 Aims

2.1.1 The initial project aims were to identify, by non-intrusive methods, the potential for unknown archaeological assets within the PDA. This was achieved by undertaking a combined geophysical and topographic survey. Based upon the result of this survey, the aims of the evaluation by trial trenching were established as follows:

i. To confirm and characterize the level of preservation, date, and significance of any archaeological remains identified during non-intrusive survey by means of a targeted programme of trial trenching;
ii. To test the validity of initial non-intrusive methods by sample excavation of supposed blank areas;
iii. To adhere to and fulfill current planning conditions associated with the archaeological potential of the development, as issued by LAAS, and consequently to successfully discharge those conditions;
iv. To inform a decision as to whether further archaeological investigation will be required in advance of development ground works;
v. To compile a professional archival record of any archaeological remains within the PDA ahead of their potential destruction during subsequent development of the area.

2.2 Methodology

2.2.1 Details of the methodology for the Topographic and Geophysical surveys are outlined fully in the WSI and report for those works and will not be repeated here. What follows is an outline of the methodology pertaining to the trial trench evaluation only.

2.2.2 A limited number of primarily linear anomalies were identified during previous survey of the PDA and interpreted as possessing archaeological potential (OA North 2018). On the basis of these results, LAAS requested a trenching sample of the PDA equivalent to 4% of the total area. Areas available for evaluation were limited, however, due to the advanced nature of groundworks within some areas of the PDA, as well as previous works undertaken to locate and mitigate the risk of unidentified mineshafts, known to be in the area. As a result, four target areas were agreed with LAAS to be subject to a strip, map and record exercise.

- **Area 1**: comprised an area approximately 1000m^2, located towards the western end of the PDA, and orientated roughly east-west against the northern limit of the development. It was indicated to contain three linear features of potential archaeological interest, each extending roughly east/west.
- **Area 2**: comprised an area approximately 1000m^2, located towards the western end of the PDA, and orientated roughly north/south. It sampled a putative blank area. This area had to be relocated slightly to take account of an active ditch.

- **Area 3**: comprised an area approximately 350m^2, located towards the western end of the PDA and orientated roughly east/west. It sampled a putatively blank archaeological area. Its intended location had to be adjusted due to the advanced nature of groundworks in the original location.
- **Area 4**: comprised an area approximately 100m^2, located towards the centre of the PDA. It targeted a potential linear feature extending roughly north/south.

2.2.3 The proposed location of the four evaluation areas were marked out using a GPS system and subject to CAT-scan to determine the presence of underground services within the excavation areas. If services were encountered, the agreed location of the areas were to be altered with their final placement fixed relative to ordnance datum using the Global Positioning System (GPS) survey equipment.

2.2.4 Excavation of the evaluation areas was undertaken by means of a mechanical excavator fitted with a toothless ditching bucket and operated by suitably qualified personnel. Excavation of topsoil/overburden deposits were removed under archaeological supervision in controlled spits of no more than 0.20m, to the top of the first natural horizon or significant archaeological deposit.

2.2.5 Post excavation, each evaluation area was subject to manual cleaning and assessment for the presence of archaeological features. Where these were encountered they were subject to manual excavation in keeping with standard archaeological practice, outlined below:

- **Discrete features (pits, post and stake holes)**: will be subject to 50% excavation in the first instance, with the remaining fill excavated should the feature be found to contain significant artefactual material;
- **Linear features (ditches and gullies of non-domestic nature)**: will be subject to a 10% sample of its exposed length, with slots excavated across its width to be a minimum of 1m wide. Slots will focus upon key nodes of interest including all intersections and termini;
- **Domestic structures (ditches, beam slots, gullies etc associated with identifiable concerted domestic activity)**: at this stage will be subject to 25% sample of their exposed length with slots excavated as above;

2.2.6 **Recording**: all information identified over the course of the site works was recorded stratigraphically, using a system adapted from that used by the Centre for Archaeology Service of English Heritage. Results of the excavation were recorded on *pro-forma* context sheets, and accompanied with sufficient pictorial records (plans, sections and digital photographs) to identify and illustrate individual features.

2.2.7 A full and detailed photographic record of individual contexts was maintained and similarly general views from standard view points of the overall site at all stages of the excavation were generated. Photography was undertaken using high-resolution digital cameras, and all frames included a visible, graduated metric scale. Photographic records were maintained on special photographic pro-forma sheets.

2.2.8 The precise location of individual trenches, and the position of all archaeological features and deposits encountered, were surveyed by GPS. This process allowed the generation of scaled plans within AutoCAD software, which was subject to manual survey enhancement, where appropriate. The drawings were generated at an accuracy appropriate for 1:20 scale, but can be output at any scale required. Sections will be manually drafted as appropriate at a scale of 1:10. All information will be tied in to Ordnance Datum.

2.2.9 More details on the methodology regarding human remains, treasure and environmental sampling are included in the WSI and will not be repeated here due to their lack of relevance with the results.

3 RESULTS

3.1 Introduction and presentation of results

3.1.1 The results of the excavation are presented below and include a stratigraphic description of the excavated areas that contained archaeological remains. The full details of all areas with dimensions and depths of all deposits can be found in *Appendix A*.

3.2 General soils and ground conditions

3.2.1 The soil sequence varied slightly with Areas 1 and 3 sharing a slightly different stratigraphy to Areas 2 and 4. In the latter, the natural geology of yellow/orange sandy clay was overlain by an additional deposit of dark grey silt subsoil. In Areas 1 and 3, no subsoil deposit was observed. All of the evaluation areas were overlain by topsoil.

3.2.2 Ground conditions throughout the evaluation were generally good, although the western end of Area 2 flooded slightly due to it's orientation towards the base of a slope and presence of an active field drain. Archaeological features, where present, were easy to identify against the underlying natural geology.

3.3 General distribution of archaeological deposits

3.3.1 Archaeological features were present in Area 4 only, which targeted one of the anomalies flagged during the geophysical survey. The remaining areas were devoid of archaeological features, those in Area 1 being found to probably be natural in origin.

3.4 Area 4

3.4.1 Area 4 was the smallest of the four areas excavated during the evaluation, measuring 10m x 10m, with a maximum excavated depth of 0.50m below ground level (bgl). Topsoil ***400*** was removed to a maximum depth of 0.35m along with 0.15m of the underlying subsoil deposit ***401***. This revealed linear ***402*** crossing the south-eastern corner of the excavation, with a visible length of 8m, width of 1.52m, and depth of 0.54m. Ditch ***402*** had a curved base with a wide U-shaped profile (Plate 1), it contained a single fill deposit ***403***, a dark grey silt. This fill deposit contained a mixture of post-medieval and modern finds including fragments of pottery, glass, and metal objects, including barbed wire.

Plate 1: Ditch ***402*** post-excavation

3.5 Finds summary

3.5.1 No finds were retained from the evaluation as, with the exception of certifiably modern items, only a single fragment of late post-medieval pottery was recovered from ditch ***402***, the single archaeological feature investigated.

4 DISCUSSION

4.1 Reliability of field investigation

4.1.1 The main issue encountered during the evaluation was the need to relocate two of the areas prior to excavation. The original positioning of Areas 2, 3, and 4 lay within areas of ongoing development works and the partially constructed road and drainage ditch impacted on Areas 3 and 2 respectively. These were moved to positions to enable excavation while still being in the vicinity of their original placement. As both of these areas were excavated to sample putative blank areas of archaeology, their slight adjustments did not greatly impact the evaluation.

4.2 Evaluation objectives and results

4.2.1 The objectives laid out earlier in this document (*Section 2.1.1*) expressed the need for the evaluation to discharge planning conditions associated with the development by establishing the presence/absence, character and levels of archaeological remains, and validate/refute the results of the non-intrusive survey by proving some areas to be blank.

4.2.2 Areas 1 and 4 were targeted on potential archaeological features highlighted in the geophysical survey. Only the feature in Area 4 was proven to be archaeological in nature, although late in origin, whereas the anomalies observed in Area 1 were identified as natural in origin, thought to be tree boles, or similar rooting formations.

4.2.3 By comparison, excavations in Area 2 and 3, confirmed the original results of the geophysical survey, and were found to be entirely devoid of archaeology.

4.3 Interpretation

4.3.1 The single ditch observed in Area 4 was the only archaeology observed during the evaluation. Based on the contents of the fill, a later post-medieval or modern date for the feature is assumed. The function of this feature is likely a field boundary, or possibly drainage owing to the potential for the lower areas of the PDA to become waterlogged.

4.4 Significance

4.4.1 While other areas of archaeological potential within the PDA were not available for evaluation, the identification of a single arguably late or modern drainage feature within the areas sampled, does not ascribe a great significance to the site.

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6 FIGURES

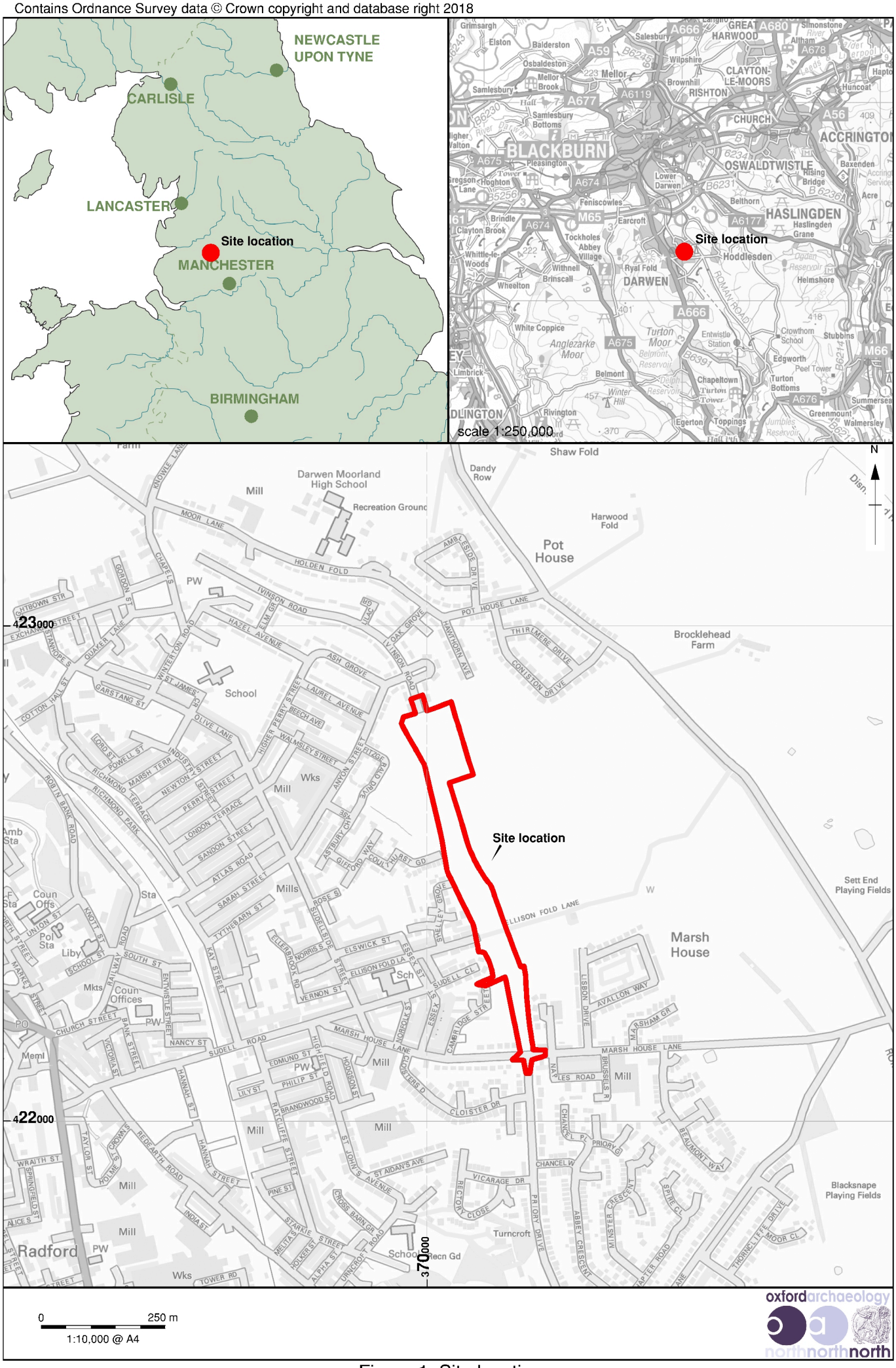

Figure 1: Site location

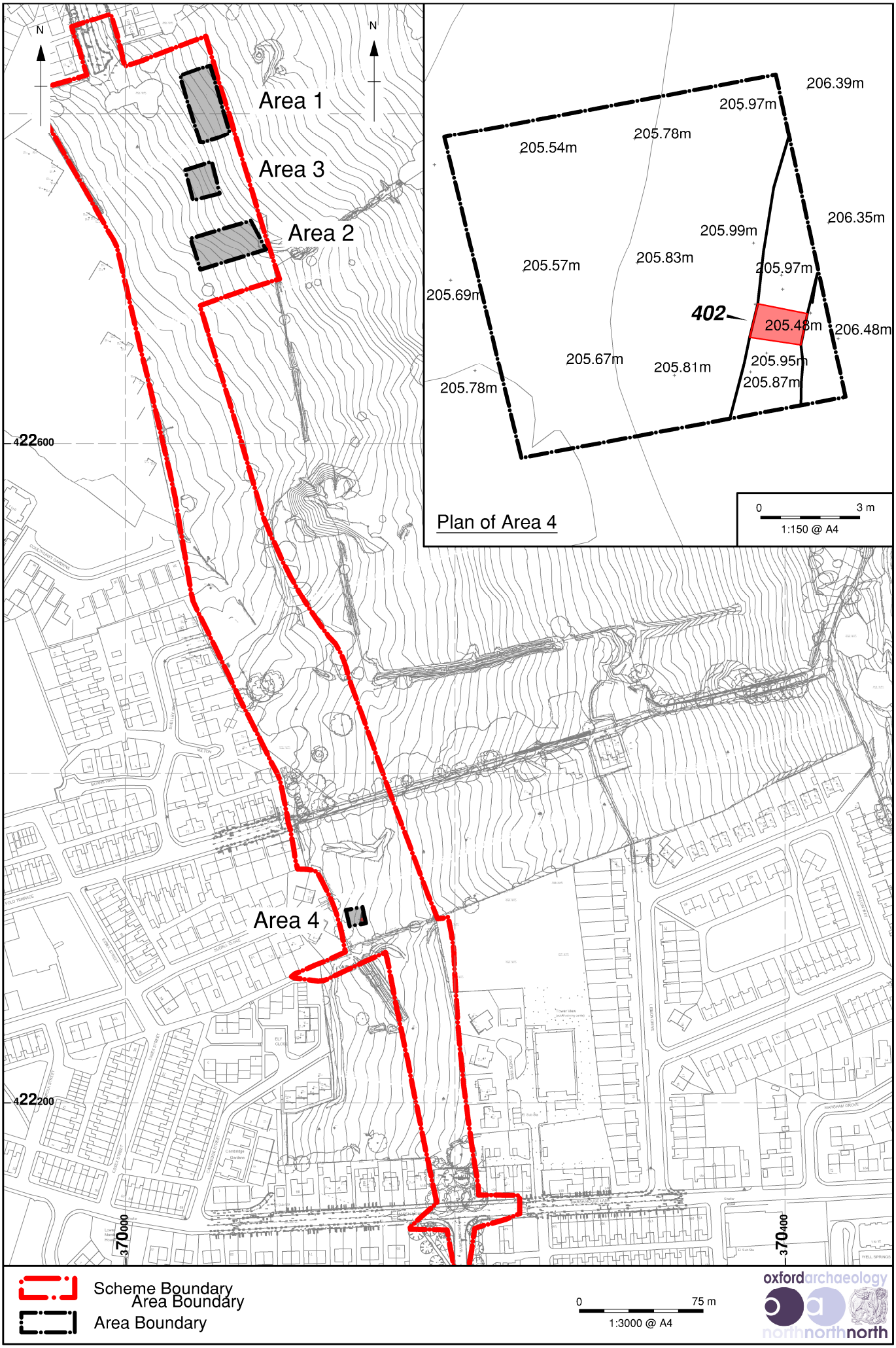

Figure 2: Location of Areas 1-4, and plan of feature ***402***

APPENDIX A AREA DESCRIPTIONS AND CONTEXT INVENTORY

Area 1						
General description					**Orientation**	N-S
Area devoid of archaeology. Consists of topsoil and subsoil overlying natural geology of sandy clay. Contained several natural features.					**Length (m)**	43
					Width (m)	19
					Avg. depth (m)	0.50
Context No.	**Type**	**Width (m)**	**Depth (m)**	**Description**	**Finds**	**Date**
100	Layer	-	0.50	Topsoil	-	-
101	Layer	-	-	Natural	-	-

Area 2						
General description					**Orientation**	E-W
Area devoid of archaeology. Consists of topsoil and subsoil overlying natural geology of sandy clay. Contained several natural features and/or plough scars.					**Length (m)**	40
					Width (m)	20
					Avg. depth (m)	0.70
Context No.	**Type**	**Width (m)**	**Depth (m)**	**Description**	**Finds**	**Date**
100	Layer	-	0.30	Topsoil	-	-
101	Layer	-	0.40	Subsoil	-	-
102	Layer	-	-	Natural	-	-

Area 3						
General description					**Orientation**	N-S
Area devoid of archaeology. Consists of topsoil and subsoil overlying natural geology of sandy clay. Contained several natural features and/or plough scars.					**Length (m)**	20
					Width (m)	16
					Avg. depth (m)	0.30
Context No.	**Type**	**Width (m)**	**Depth (m)**	**Description**	**Finds**	**Date**
100	Layer	-	0.30	Topsoil	-	-
102	Layer	-	-	Natural	-	-

Area 4						
General description					**Orientation**	N/A
Area containing a length of ditch. Consists of topsoil and subsoil overlying natural geology of sandy clay.					**Length (m)**	10
					Width (m)	10
					Avg. depth (m)	0.50
Context No.	**Type**	**Width (m)**	**Depth (m)**	**Description**	**Finds**	**Date**
400	Layer	-	0.35	Topsoil	-	-
401	Layer	-	0.15	Subsoil	-	-
402	Cut	1.52	0.54	Cut of Ditch	-	Post-Med
403	Fill	1.52	0.54	Fill of 402		-
404	Layer			Natural		

APPENDIX B SITE SUMMARY DETAILS

Site name:	Darwen Eastern Corridor Development
Site code:	DEDC18
Grid Reference	NGR SD 701 225
Type:	Evaluation
Date and duration:	October 2018, up to 2 weeks
Area of Site	N/A
Location of archive:	The archive is currently held at OA, Mill 3, Moor Lane Mills, Moor Lane, Lancaster, LA1 1QD, and will be deposited with **** in due course, under the following accession number: ***.
Summary of Results:	The development site was evaluated by means of excavating four areas, primarily located towards the western end of the road corridor, due to the advanced nature of ground works associated with the development across most of the site. A single archaeological feature, representing a drainage or boundary ditch, was identified in Area 4 only, but was found to be late post-medieval or modern in origin.

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