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PIRELLI WAREHOUSE, CUMMERSDALE, Cumbria

Evaluation Report

Oxford Archaeology North

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Pirelli (UK) Tyres Ltd

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SUMMARY

An archaeological evaluation was undertaken in August 2002 of the proposed development at the Pirelli Warehouse site, Cummersdale, Cumbria (centred at NY 3890 5360 - Fig 1), by Oxford Archaeology North (OA North) on behalf of Pirelli (UK) Tyres Ltd. The evaluation comprised a remote search of the known archaeological resource in the area, utilising the County Sites and Monuments Record, and the excavation of several evaluation trenches.

In total, 35 trenches were excavated across the site, close to the known Roman fort at Cummersdale. There was no evidence of Roman activity, but the evaluation did reveal a large medieval boundary ditch across the eastern side of the site. Although a second ditch and a gully revealed in the evaluation remained undated, the fact that they were sealed by subsoil suggests a date possibly earlier than the post-medieval period. In addition, several phases of nineteenth and twentieth century field drainage systems were identified during the evaluation, as well as field drains of very recent date.

The evaluation has highlighted a locally important archaeological resource within the study area, in particular a large medieval ditch located in the east of the site. The recovery of just four pottery sherds from its fills suggests an absence of medieval occupation in its vicinity, and the paucity of archaeological features across the study area suggests it has low archaeological potential. Several sections excavated across the medieval ditch during the evaluation are considered sufficient to characterise and date the feature, and to plot its alignment. Therefore, despite the fact that topsoil stripping and the proposed Pirelli warehouse building are likely to damage the identified archaeological deposits, it is considered unlikely that further work will add anything of archaeological significance to that already recorded.

ACKNOWLEDGEMENTS

OA North would like to thank Colin Lloyd of Pirelli (UK) Tyres Ltd for his assistance during the course of the project and to David Shotter for information relating to the work of the late Professor GDB Jones on the Roman fort at Cummersdale. In addition, thanks are expressed to Bette Hopkins and Helena Smith of Cumbria County Archaeology Service for their help regarding the project. Thanks are also extended to Ian Sewell of Storey Construction and Peter Barker for their help and cooperation.

The evaluation was supervised by Mark Bagwell, who was assisted by Chris Healey, Peter Schofield, Lorna O'Donnel and Nicola Pee; Mark Bagwell wrote the report. The illustration was undertaken by Emma Carter and the finds examined by Sean McPhillips. The project was managed by Alan Lupton, who also edited the report.

1. INTRODUCTION

1.1 CIRCUMSTANCES OF PROJECT

1.1.1 Oxford Archaeology North (OA North) was contracted by Pirelli (UK) Tyres Ltd to undertake a desk-based assessment and evaluation on part of their premises at Pirelli Warehouse, Cummersdale, Cumbria (centred at NY 3890 5360 - Fig 1) following submission of a project design (*Appendix 2*). The archaeological work was carried out in accordance with the requirements of the brief prepared for the client by the Cumbria County Archaeology Service (*Appendix 1*).

1.1.2 This report sets out the results of the work in the form of a short document which outlines the findings, followed by a statement of the archaeological potential of the area, an assessment of the impact of the proposed development, and recommendations for further work.

2. METHODOLOGY

2.1 DESK-BASED ASSESSMENT

2.1.1 Timetabling constraints prevented a rapid desk-based assessment of the site being undertaken before the field evaluation was underway. Given the results of the fieldwork exercise, the former Assistant Archaeologist for Cumbria County Archaeology Service, Helena Smith, decided that the desk-based assessment element of the project could be limited to a remote search of the Cumbria Sites and Monument Record, a database of archaeological sites within the county maintained by Cumbria County Council in Kendal; a brief record including grid reference and description was obtained for the various sites within the defined area. Consequently, contra the project design, a map regression of cartographic sources and/or examination of documentary sources pertaining to the area held in the County Record Office were not undertaken.

2.1.2 ***Aerial Photographs:*** following discussion with D Shotter, OA North approached Paul Flynn, formerly of the former Carlisle Archaeological Unit, who had flown over and photographed the site of Cummersdale Roman fort to the south-east of the development area (see section *4.2.2* below). In addition, Mr Flynn had assisted the late GDB Jones during the excavations on the site of the fort. Unfortunately, despite promises to send material, nothing was forthcoming during the lifetime of the project.

2.2 EVALUATION

2.2.1 The Assistant Archaeologist of CCAS suggested that an area approximately 5% of the total development should be excavated to confirm the presence or absence of buried deposits of archaeological significance. In total, 35 trenches were excavated (Fig 3).

2.2.2 The trenches were excavated through relatively soft ground and encountered no obstacles or impediments. The trenches were excavated using a 2m wide toothless ditching bucket, working under archaeological supervision. Mechanical excavation progressed down to the level of potentially significant archaeological deposits in each trench. Subsequently, all trenches were hand cleaned and all excavation of features was manual. Cut features, including pits and post holes, were half sectioned, linear features were sectioned with 10% examined, and extensive layers were dealt with by partial excavation, either by hand or by machine. Vertical stratigraphy was observed in the exposed sections of the trenches, which provided valuable sequential information. All excavation was carried out with the aim of avoiding damage to archaeological features which appeared worthy of *in situ* preservation.

2.2.3 Recording was by means of OA North's standard objective context recording system (compatible with that used by English Heritage's Centre for Archaeology), with trench records and supporting registers and indices. A full

photographic record in colour slide and monochrome formats was made and section drawings compiled of relevant areas of the trenches and features at appropriate scales. Full hand-drawn plans were made of every trench, levels were recorded, and the trenches were located manually.

2.3 HEALTH AND SAFETY

2.3.1 Full regard was given to all health and safety constraints and regulations. A risk assessment was carried out in advance of work commencing and all work complied with OA North's Health and Safety Statement and Unit Safety Policy. All site procedures were in accordance with the guidance set out in the *Health and Safety Manual* compiled by the Standing Conference of Unit Managers (rev 1999).

2.4 ARCHIVE

2.4.1 A full archive has been produced to a professional standard in accordance with current English Heritage guidelines (*Management of Archaeological Projects,* 2nd edition, 1991) and the *Guidelines for the Preparation of Excavation Archives for Long Term Storage* (UKIC 1990). The archive will be deposited in the CRO (Carlisle) with additional copies of the report being lodged with the CSMR at Kendal. A synthesis of the archive has also been made available for deposition in the National Monuments Record.

3. TOPOGRAPHICAL AND GEOLOGICAL BACKGROUND

3.1 TOPOGRAPHY AND GEOLOGY

3.1.1 The study area is situated within the modern civil parish of Cummersdale. It lies within the north Cumbrian Plain, or Solway Basin, a low-lying area to the north and west of the Lake District massif bounded by the Solway Firth to the north and the Irish sea to the north-west (Countryside Commission 1998, 18). The Solway basin is an area of gently undulating landscape, with intensively managed enclosed fields, predominantly as improved pasture (*ibid*, 20).

3.1.2 The study area comprises an open grassy field, presently used as cricket and football pitches by Pirelli Social Club, with a hedged boundary on its north, south and west sides. Its eastern side is bound by a fence. The site slopes gently from east (at 39.85m OD) to west (at 35.32m OD). There is a clearly visible north-east/south-west terrace slope running across the site perpendicular to its boundaries, thought to be modern landscaping to make the playing field more level. This sealed a large modern drainage ditch. The evaluation trenches basal deposits, the slope of which reflects that of the fields surface, consisted generally of natural clayey sand with small-medium subrounded stone inclusions. Shallow depressions filled with redeposited subsoil and natural were numerous across the site and were interpreted as natural hollows or tree throws.

3.1.3 The underlying solid geology of the Solway Basin area is mainly undifferentiated mudstones which are part of the Permian and Triassic Sherwood Sandstone group, known as the New Red Sandstones (Moseley 1978, plate 1). The drift geology is dominated by a deep accumulation of glacial till, forming a gently undulating landscape of low ridges, intersected by a predominantly south-west to north-east drainage system (Hodgkinson *et al* 2000). The overlying soils are mostly of the Clifton and Brickfield Associations, the former comprising seasonally waterlogged soils which developed over tills (Lawes Agricultural Trust 1983).

4. HISTORICAL BACKGROUND

4.1 PREHISTORIC

4.1.1 There is evidence of man's activity in the area, which lies in an area accessible to the Lake District, the Pennines and the Solway Firth, from the Mesolithic period onwards (Hodgkinson *et al* 2000, 110). The fertile lands of the Caldew and Petteril Valleys are likely to have attracted settlement since the Neolithic period. The distribution of monuments of this period within Cumbria appears to suggest a shift in the emphasis of Neolithic activity from the coastal plain to the edge of the Lake District hills and the Eden Valley (*op cit*, 37, 111-3). There are numerous sites of possible prehistoric date in the surrounding region, appearing as either crop or soil marks in aerial reconnaissance or as earthworks in the landscape, but the relative paucity of controlled archaeological investigations at such sites means that they remain somewhat ambiguous. Even when work has been carried out, such as at the two enclosures at Dobcross Hall to the south of the study area (NY 3398 5449), the nature of the remains may not be conclusive, particularly in terms of dating (Higham 1981). There is also some evidence of Bronze Age activity in the surrounding area, as collared urns were found at the Garlands Hospital Site in 1861 (Perriam 1992, 3), and more recently a Bronze Age burnt mound has been identified at the same site (LUAU 1996). Other remains of this date are thought to have been found at Ratten Row, Blackwood Hall, Dalston and at Newbiggin Hall (Higham 1977).

4.1.2 In the Iron Age, the North seems to have been under the aegis of the Brigantes tribe, of which the Carvetii tribe, which appears in documentary sources in the mid-later Roman period in the area of Carlisle, may have been a sub-set (Cunliffe 1991). Although there are no known remains of the Iron Age from the immediate vicinity of the study area, this may relate to the lack of definable and distinct 'Iron Age' material culture in the North West. However, there appears to have been a major expansion in forest clearance and increase in agricultural activity in the area during this period (Hodgkinson *et al* 2000). Studies of aerial photographic evidence suggest the development of field systems and trackways and several of the undated enclosures identified on the Solway Plain may relate to Iron Age settlement (Bewley 1994).

4.2 ROMAN

4.2.1 The town of Carlisle occupies a naturally well-defined promontory between the Eden and Caldew rivers and this topography was exploited by the establishment of a Roman fort in the early AD 70s under the governorship of Petilius Cerialis (Shotter 1997, 13). The town of *Luguvalium* grew up to the south of the fort, and the name was first attested on writing tablets dating from the AD 80s (McCarthy 1990, 4); by the late Roman period *Luguvalium* had acquired the status of a *Civitas* capital, as *Civitas Carvetiorum*, which demonstrates the importance and significance of this urban centre (Charlesworth 1978, 123).

4.2.2 The discovery of the Roman fort under the modern village of Cummersdale to the south-east of the study area raises the question of why such a large fort should be constructed so close to that established in Carlisle at Annetwell Street. The problem is not helped by the lack of secure dating evidence for the Cummersdale fort, but the discovery of two sherds of early (first century AD) Samian suggests that it may have originated in the Flavian period (the results have been summarised in the round up of recent work in Roman Britain in 1996-2000 - see *Britannia* **27**, **28**, **29** and **30**). Various suggestions have been put forward to explain the siting of the Cummersdale fort, including that it was a temporary fortified camp whilst the Annetwell Street fort was under construction, or that it was somehow related to the Stanegate frontier, which perhaps bypassed the growing military and urban complex in nearby Carlisle (D Shotter pers comm). A further suggestion is that the fort dates to the period between the initial Roman occupation of the area and the construction of the Hadrian's Wall frontier and was used to house soldiers returning from a withdrawal in Scotland.

4.2.3 There is considerable evidence for Roman military and civilian activity around the study area during the Roman period (Shotter 1997). One major Roman road, (Road 7e, Margary 1973), lies to the east and a second (Road 75, *ibid*) passes to the north-west. Road 7e is a continuation of the main route north-south from Tebay to Carlisle which passes through Penrith and the fort at *Brocavum* (Brougham), entering Carlisle along the A6. Road 75, which for much of its route lies beneath the modern A595, was the main route between the forts in Carlisle and Papcastle to the south-west. The fort at Cummersdale lies between the two and it would be expected that some form of roads would have linked this fort into the road network. There was probably a significant traffic in goods and people through the region, travelling to and from the northern frontier of Hadrian's Wall, established in the second century. Indeed, many of the undated enclosures, field systems and trackways identified by aerial photography in the Solway Plain area may relate to Romano-British occupation.

4.3 EARLY MEDIEVAL

4.3.1 As is the case throughout Cumbria, evidence for early medieval activity is extremely limited. Once the administration of the Roman occupation was finally rescinded in *c* AD 410 (although there had been a gradual diminishing of government organisation for some time prior to this), the situation was essentially one where the 'native' Britons reverted to autonomy, however fractious that was. The region is thought to have been part of the kingdom of Rheged, which was under the control of the British king Urien at the end of the sixth century AD (Higham 1986, 266).

4.3.2 By the seventh century onwards the area came under the sway of the expanding kingdom of Northumbria (Kirkby 1962). Some of the placenames in the area, such as Dalston (derived from either *daeles* meaning valley or the personal

name *Deall* and *tun* meaning homestead or village), include Old English elements which broadly date from the sixth to the twelfth century; although many are thought to be later they indicate the possibility of earlier surviving names relating to settlements (Mills 1991). The name Cummersdale is taken from the Old English *cumbre* and the Norse *dalr*, meaning valley of the Cumbrian Britons (*op cit*, 100).

4.3.3 There has been some evidence for the continued occupation of some central parts of Carlisle including Blackfriars Street (McCarthy 1990), around the cathedral, and in Stanwix. Documentary evidence suggests that some elements of urban life were still in existence in Carlisle in the seventh century when, according to Bede (Colgrave and Mynors 1969), St Cuthbert in AD 685 saw water systems in use. In addition, Bede records a nunnery and possibly a monastery within the town (*ibid*), which was perhaps associated with St Cuthbert's, a church that clearly precedes the development of the cathedral precinct (from the twelfth century) (McCarthy 1990). St Cuthbert's would seem to be aligned on the Roman road system, rather than a more exact east/west orientation, and it is notable that the limited indications of mainly artefactual evidence concentrate on the line of the former north-west/south-east Roman road (*ibid*); this includes coins which date to between the eighth and eleventh centuries. The Danes are recorded as having overrun the region in AD 876 under Halfdan (Earle and Plummer 1892).

4.3.4 By the tenth century Hiberno-Norse cultural and political influences began to affect the area. The placename evidence indicates the presence of people of Hiberno-Norse extraction in the landscape throughout Cumbria (Fellows-Jensen 1985). More tangible evidence comes from the few known sites and finds, including stone sculpture, but these are relatively dispersed and none is known from the immediate vicinity of the study area.

4.4 MEDIEVAL

4.4.1 In the early eleventh century, most of present-day Cumbria was an area of dispute between the kingdoms of Northumbria and Strathclyde (Kirkby 1962). Malcolm III of Scotland invaded Cumbria in 1070 and was still in possession of much of the area at the time of the Domesday survey of 1086. The area saw the arrival of the Normans when William Rufus went north in 1092 to fortify land against the Scots and planted a castle and colony at Carlisle (Rowley 1983, 50). In fact, there are suggestions that some of accompanying Normans were encouraged to settle throughout Cumbria (Bingham 1995, 46) and place-name evidence indicates either adoption of Norman names or the establishment of new settlements (Armstrong *et al* 1971). The region was ceded by King Stephen to King David of Scotland in 1136, returning to England after the Anarchy (Whellan 1860, 84-5), in the 1150s.

4.4.2 The study area lay within the bounds of Inglewood Forest, the largest royal forest in England. Under Henry II the area that came under forest law was extensive and covered much of the Solway Basin, from the northern fells to the

river Eden (Parker 1905). The forest was the property of the Crown but was often held by manorial lords and provided a variety of resources as well as hunting activities (Winchester 1987, 22). By 1300 the area of the forest was much reduced.

4.4.3 The late thirteenth to early fifteenth centuries was a period of economic depression in the area, caused by three major factors, both natural and manmade (Winchester 1987). The first was the Wars of Independence with Scotland which from 1296 onwards caused devastation to much of the North. The second was the outbreak of plagues and murrains among the human and animal population and the third factor was the deteriorating climate which affected those marginal agricultural areas that had been colonised in the twelfth and thirteenth centuries. The coincidence of some of these factors caused the effects of each to be more severe than may ordinarily have been the case and economic recovery is not in evidence until the mid fifteenth century.

4.4.4 During the medieval period Carlisle and the surrounding district comprised a number of parishes. One of these, St Mary's, centred on the cathedral, contained the Holy Trinity ecclesiastical district, which comprised the townships of Cummersdale and Caldew (Whellan 1860, 144).

4.5 POST-MEDIEVAL

4.5.1 Control over the Anglo-Scottish border area in the fifteenth-sixteenth century was attempted through the wardens of three marches defined along each side of the border; Carlisle was the centre of the Wardenry of the West March. From the late fifteenth century onwards a state of anarchy developed along the border line, which led to the growth of the border reivers (Fraser 1971). Following the unification of the Crowns in 1603, the border was forcibly pacified, and Carlisle's influence declined. The Civil War also affected the area, Carlisle being held for a time by the Royalists but was recaptured by Parliament in 1645 (McCarthy 1990).

4.5.2 A history of the Denton Holme Estate, written at the very end of the eighteenth century, discusses land regarded as the Bishop of Carlisle's Liberties, which included high and low Cummersdale (Hudleston 1968). The area was given over to agricultural use until the early twentieth century, when the construction of the Pirelli (UK) Tyres Ltd factory essentially brought the area in to the suburbs of Carlisle.

5. ASSESSMENT RESULTS

5.1 CUMBRIA SITES AND MONUMENTS RECORD (CSMR)

5.1.1 There are no CSMR sites within the 3.85ha of the development area but within the wider 1km radius around the site there is a total of seven CSMR sites recorded, as shown on Figure 2. Two prehistoric sites are logged on the CSMR database, a Neolithic/Bronze Age axe found on the surface of a field on the west side of Cummersdale village in 1951, together with a squarish axe-hammer found in 1946 somewhere in the same general vicinity (Site 01), and a Neolithic leaf-shaped flint arrowhead found by fieldwalking (Site 02).

5.1.2 There are four entries for the Roman period. Site 03 relates to the Roman fort under the modern village, Site 04 to a late Roman carved stone, Site 05 to Samian pottery found in a garden at Caldewbank in 1983, and Site 06 to the discovery of a silver republican *denarius* dated *c* 81BC found in another garden in the village in 1989.

5.1.3 The database includes two sites from the medieval period: the first, included in Site 02, comprises a total of 137 sherds of medieval pottery found during the same fieldwalking which recovered the Neolithic flint arrowhead mentioned above (see *5.1.1*); the second, Site 05, includes several late medieval sherds which were recovered together with Roman Samian pottery (see *5.1.2*) in a garden at Caldewbank in 1983.

5.1.4 There are no CSMR entries for the post-medieval period in the vicinity but one site, Site 07, is of unknown date. It consists of a triangular-shaped pebble of grey-white sandstone which had been perforated for suspension. It is recorded in the database as a possible hag or witch stone.

6. EVALUATION RESULTS

6.1 INTRODUCTION

6.1.1 Thirty five trenches were opened, covering an approximate area of 1925m² (Fig 3). They were spread as evenly as possible across the site, but where possible located to avoid areas that were concurrently being used as football and cricket pitches.

6.2 TRENCH 1

6.2.1 Trench 1, 30m long by 2m wide, and orientated north-east/south-west, was placed in the north-west corner of the site. The trench was excavated to a maximum depth of 0.55m to the level of the natural deposits. No significant archaeological features were encountered.

6.2.2 The natural subsoil consisted of reddish brown sandy clay and contained *c* 10% small-medium subrounded stones. This horizon sloped gently westwards following the natural slope of the field. Overlying the natural deposits was a 0.10m thick layer of pale grey silty sand subsoil with *c* 20% small-medium subrounded stones. It was truncated by three field drains, one orientated north-east/south-west and two orientated north-west/south-east. They were approximately 0.30m wide and 0.20m deep. Hand excavated slots across them revealed 0.13m diameter orange ceramic drain pipes at the bases of their cuts. These deposits were capped by 0.30m thick dark brown sandy silty clay topsoil.

6.3 TRENCH 2

6.3.1 Trench 2, 30m long by 2m wide, and orientated north-east/south-west, was positioned in the south-west corner of the site. The trench was excavated to a maximum depth of 0.55m to the level of the natural deposits.

6.3.2 The natural subsoil, ***10***, consisted of orange brown clay and contained *c* 10% small-medium subrounded stones.

6.3.3 The natural material was truncated by a linear north-west/south-east aligned gully, ***9***, which ran across the trench for a length of 7m. It was 0.40m wide x 0.15m deep, with a rounded profile, and was filled with brown grey sandy silty clay, ***8***. Although it contained no artefactual evidence, it was overlaid by subsoil and truncated by a post-medieval field drain, and therefore thought to represent a significantly earlier phase of activity at the site than the post-medieval field drain system.

6.3.4 Gully ***9*** was overlaid by a 0.15m thick layer of light grey silty sand subsoil with *c* 10% small-medium subrounded stones. It was truncated by two field drains with north-west/south-east orientations. They were approximately 0.30m

wide and 0.20m deep. Hand excavated slots across them revealed 0.13m diameter orange ceramic drain pipes at the bases of their cuts. These deposits were capped by 0.40m thick dark brown sandy silty clay topsoil.

6.4 TRENCH 3

6.4.1 Trench 3, 15m long by 4m wide, and orientated north-west/south-east, was situated in the south-west corner of the site. The trench was excavated to a maximum depth of 0.40m to the level of the natural deposits.

6.4.2 The natural subsoil, ***5***, consisted of reddish brown sandy clay and contained *c* 10% small-medium subrounded stones. This horizon sloped gently westwards following the natural slope of the field.

6.4.3 The natural deposit was truncated by an oval feature, ***4***, with a rounded profile, measuring 1.04m east-west x 0.84m north-south, filled with light grey brown silty sand. The feature contained no artefactual evidence and is thought to represent a natural hollow or tree throw.

6.4.4 Overlying ***4*** and ***5*** was a 0.15m thick layer of pale grey brown sandy clay subsoil, ***2***, with *c* 10% small-medium subrounded stones. It was truncated by three north-west/south-east orientated field drains between 0.30m and 0.40m wide and up to 0.30m deep. Hand excavated slots across them revealed 0.13m diameter orange ceramic drain pipes at the bases of their cuts. These deposits were capped by 0.30m thick dark brown silty clay sand topsoil, ***1***.

6.5 TRENCH 4

6.5.1 Trench 4, 15m long by 4m wide, and orientated north/south, was in the centre-south of the site. The trench was excavated to a maximum depth of 0.55m to the level of the natural deposits. No significant archaeological features were encountered.

6.5.2 The natural subsoil consisted of reddish brown sandy clay and contained *c* 15% small-medium subrounded stones. This horizon sloped gently westwards following the natural slope of the field. Overlying the natural deposit was a 0.20m thick layer of yellow brown silty sand subsoil with *c* 10% small-medium subrounded stones. It was truncated by two north-west/south-east orientated field drains. They were approximately 0.20m wide and 0.20m deep. Hand excavated slots across them revealed 0.10m diameter orange ceramic drain pipes at the base their cuts. These deposits were capped by 0.20m thick dark brown sandy clay silt topsoil.

6.6 TRENCH 5

6.6.1 Trench 5, 30m long by 2m wide, and orientated east/west, was placed in the south-east of the site. The trench was excavated to a maximum depth of 0.45m to the level of the natural deposits.

6.6.2 The natural subsoil, ***15***, consisted of red-orange clayey sand and contained *c* 5% small-medium subrounded stones. This horizon sloped gently westwards following the natural slope of the field.

6.6.3 The natural material, ***15***, was truncated by a linear north-east/south-west aligned ditch, ***14***, which ran across the trench for a length of 4.60m at 38.77m OD. It was 1.20m wide x 0.40m deep, with straight sides and a flat base, and was filled with light yellow grey clayey sand, ***13***. Feature ***19*** recorded in Trench 9 is thought to represent its northern terminus. Although it contained no artefactual evidence, ditch ***14*** was overlaid by subsoil and truncated by a post-medieval field drain, and therefore is presumed to represent a significantly earlier phase of activity at the site than the post-medieval field drainage system.

6.6.4 Ditch ***14*** was overlaid by a 0.15m thick layer of light grey silty sand subsoil, ***12***, with *c* 10% small-medium subrounded stones. It was truncated by eight field drains generally with north/south orientations. They were approximately 0.30m wide and 0.20m deep. Hand excavated slots across them revealed 0.13m diameter orange ceramic drain pipes at the bases of their cuts. These deposits were capped by 0.25m thick dark brown sandy silty clay topsoil.

6.7 TRENCH 6

6.7.1 Trench 6, 15m long by 4m wide, and orientated north-east/south-west, was placed in the south-east of the site. The trench was excavated to a maximum depth of 0.30m to the level of the natural deposits. No significant archaeological features were encountered.

6.7.2 The natural subsoil consisted of reddish brown sandy clay and contained *c* 10% small subrounded stones and *c* 5% medium subrounded stones. This horizon sloped gently westwards following the natural slope of the field. Overlying the natural deposit was a 0.15m thick layer of grey brown silty sand subsoil with *c* 5% small subrounded stones and *c* 5% medium subrounded stones. It was truncated by two north-east/south-west orientated field drains. They were approximately 0.33m wide x 0.30m deep. Hand excavated slots across them revealed 0.12m square orange ceramic drain pipes at the bases their cuts. These deposits were capped by 0.20m thick dark brown sandy clay silt topsoil.

6.8 TRENCH 7

6.8.1 Trench 7, 30m long by 2m wide, and orientated north-west/south-east, was situated in the south-east corner of the site. The trench was excavated to a maximum depth of 0.30m to the level of the natural deposits. No significant archaeological features were encountered.

6.8.2 The natural subsoil consisted of reddish brown sandy clay and contained *c* 10% small subrounded stones, and *c* 5% medium subrounded stones. This horizon sloped gently westwards following the natural slope of the field. Overlying it was a 0.08m thick layer of pale grey-brown clayey sand subsoil with *c* 5% small subrounded stones. It was truncated by four field drains. One was

orientated north/south and three were orientated north-east/south-west. They were between 0.20m and 0.23m wide x 0.10m to 0.13m deep, and found to contain 0.10m diameter ceramic field drains. These deposits were capped by 0.25m thick dark brown silty clay sand topsoil.

6.9 TRENCH 8

6.9.1 Trench 8, 30m long by 2m wide, and orientated north-east/south-west, was positioned in the south-east of the site. The trench was excavated to a maximum depth of 0.42m to the level of the natural deposits. No significant archaeological features were encountered.

6.9.2 The natural subsoil consisted of reddish brown sandy clay and contained *c* 5% small-medium subrounded stones. This horizon sloped gently westwards following the natural slope of the field. It was truncated by a 1m long x 0.20m deep irregular silty sand-filled hollow. An excavated slot across it revealed an undulating base and no artefactual evidence. The feature was thought to represent a tree throw. Overlying the natural deposit was a 0.10m thick layer of pale yellow-brown clayey sand subsoil with *c* 10% small-medium subrounded stones. It was truncated by two north/south orientated field drains, one at the south end of the trench and one at its north end. They were approximately 0.22m wide x 0.15m deep and 0.27m wide x 0.18m deep respectively. Hand excavated slots across them revealed 0.10m diameter circular orange ceramic drain pipes at the bases of their cuts. These deposits were capped by 0.20m thick dark brown clayey silty sand topsoil.

6.10 TRENCH 9

6.10.1 Trench 9, 30m long by 2m wide, and orientated north-east/south-west, was again in the south-east of the site. The trench was excavated to a maximum depth of 0.50m to the level of the natural deposits.

6.10.2 The natural subsoil, ***20***, consisted of dark orange clayey sand and contained *c* 10% small-medium subrounded stones. This horizon sloped gently westwards following the natural slope of the field.

6.10.3 At the southern end of the trench, ***20*** was truncated by an oval-linear north-east/south-west aligned feature, ***19***, at 34.82m OD, interpreted as a ditch terminus. It was 1.5m long x 1.20m wide x 0.40m deep, with gradually sloping sides and a rounded base, and was filled with orange-brown silty sand, ***18***. Its alignment suggests it represents the northern terminus of ditch ***14***, located in Trench 5. Although it contained no artefactual evidence, ditch ***19*** was overlaid by subsoil, and therefore may represent a significant archaeological feature.

6.10.4 Ditch ***19*** was overlaid by a 0.10m thick layer of orangey brown clayey sand subsoil, ***17***, with *c* 10% small-medium subrounded stones, in turn overlaid by 0.35m thick grey brown silty clayey sand topsoil, ***16***.

6.11 TRENCH 10

6.11.1 Trench 10, 30m long by 2m wide, and orientated north-west/south-east, was placed in the south-west corner of the site. The trench was excavated to a maximum depth of 0.40m to the level of the natural deposits. No significant archaeological features were encountered.

6.11.2 The natural subsoil consisted of reddish brown sandy clay, and contained *c* 15% small subrounded stones and *c* 2% medium subrounded stones. This horizon sloped gently westwards following the natural slope of the field. Overlying this was a 0.10m thick layer of pale yellow brown clayey sand subsoil with *c* 15% small-medium subrounded stones. It was truncated by six field drains, all orientated north/south, all approximately between 0.20m and 0.30m wide and between 0.08m and 0.35m deep. Hand excavated slots across them revealed 0.13m diameter orange ceramic drain pipes at the base of their cuts. These deposits and drains were capped by 0.30m thick dark brown sandy silt topsoil.

6.12 TRENCH 11

6.12.1 Trench 11, 30m long by 2m wide, and orientated north-west/south-east, was situated in the east of the site. The trench was excavated to a maximum depth of 0.30m to the level of the natural deposits.

6.12.2 The natural subsoil, ***23***, consisted of red-orange clayey sand and contained *c* 10% small-medium subrounded stones. This horizon sloped gently westwards following the natural slope of the field.

6.12.3 Natural deposit ***23*** was truncated by a linear north/south aligned ditch, ***31***, observed running across the western end of the trench at 38.67m OD (Fig 4). It was 2.70m wide x 1m deep, with straight sides and a flat base. A 1m wide hand-excavated slot across it found it to contain five fills (contexts ***26 – 30***). Its primary fill, ***30***, comprised 0.25m thick mid grey sandy clay, overlaid by a 0.50m thick brown grey clayey coarse sand deposit, ***29***. This fill was in turn overlaid by a 0.10m thick soft greyish brown silty clay fill, ***28***. Above this, along its eastern side, the ditch was filled with dark greyish brown silty sand, ***27***. The upper fill of the ditch comprised mid brown sandy clay, ***26***. Just one of the ditch fills, ***29***, contained fragments of pottery sherds, representing the only artefactual evidence recovered from this section of the ditch.

6.12.4 Ditch ***31*** was overlaid by a 0.15m thick layer of light grey sandy silty clay subsoil, ***22***, with *c* 10% small-medium subrounded stones, which was in turn truncated by two post-medieval field drains, ***24*** and ***25.*** Further to the east, ***22*** was truncated by a further six north-east/south-west orientated field drains. They were approximately 0.30m wide and 0.20m deep. Hand excavated slots across them revealed 0.13m diameter orange ceramic drain pipes at the bases of their cuts. These deposits were capped by 0.25m thick dark brown sandy silty clay topsoil, ***21***.

6.13 TRENCH 12

6.13.1 Trench 12, 15m long by 4m wide, and orientated north-west/south-east, was placed in the north-west corner of the site. The trench was excavated to a maximum depth of 0.40m to the level of the natural deposits. No significant archaeological features were encountered.

6.13.2 The natural subsoil consisted of orangey red clayey sand and contained *c* 10% small-medium subrounded stones. This horizon sloped gently westwards following the natural slope of the field. Three irregular-shaped sandy clay-filled depressions in the top of this natural deposit were interpreted as natural hollows or tree throws, none of which contained artefactual evidence. Overlying this was a 0.15m thick layer of pale grey silty clayey sand subsoil with *c* 5% small subrounded stones. It was truncated by five field drains orientated north/south, each approximately 0.35m wide and 0.30m deep. Hand excavated slots across them revealed 0.13m diameter orange ceramic drain pipes at the bases of their cuts. These deposits were capped by 0.30m thick dark brown sandy silty clay topsoil.

6.14 TRENCH 13

6.14.1 Trench 13, 30m long by 2m wide, and orientated north-east/south-west, was situated in the centre of the site. The trench was excavated to a maximum depth of 0.35m to the level of the natural deposits. No significant archaeological features were encountered.

6.14.2 The natural subsoil consisted of reddish brown sandy clay, and contained *c* 10% small subrounded stones and *c* 5% medium subrounded stones. An irregular-shaped humic sandy clay-filled depression in the top of the natural deposit was interpreted as a natural hollow or a tree throw. It was half sectioned but found to contain no artefactual evidence. Overlying this was a 0.10m thick layer of pale yellow brown silty clayey sand subsoil with *c* 5% small subrounded stones. It was truncated by two field drains orientated north/south, each approximately 0.25m wide and 0.10m deep. Hand excavated slots across them revealed an 0.13m diameter orange ceramic drain pipe at the base of one and a blue plastic drain pipe at the base of the other. These deposits were capped by 0.25m thick dark brown sandy silt topsoil.

6.15 TRENCH 14

6.15.1 Trench 14, 30m long by 2m wide, and orientated north/south, was positioned in the south-centre of the site. The trench was excavated to a maximum depth of 0.45m to the level of the natural deposits. No significant archaeological features were encountered.

6.15.2 The natural subsoil consisted of orangey red clayey sand and contained *c* 10% small-medium subrounded stones. This horizon sloped gently westwards following the natural slope of the field. Two irregular-shaped sandy clay-filled depressions in the top of the natural deposit were interpreted as natural hollows

or tree throws, neither of which contained artefactual evidence. Overlying these was a 0.15m thick layer of pale grey silty sandy clay subsoil with *c* 5% small subrounded stones. It was truncated by three field drains, two of them orientated north-east/south-west, and one orientated north-west/south-east. They were between 0.25m and 0.35m wide and between 0.15m and 0.30m deep. These deposits were capped by 0.25m thick greyish dark brown sandy silty clay topsoil.

6.16 TRENCH 15

6.16.1 Trench 15, 30m long by 2m wide, and orientated north-east/south-west, was placed along the eastern boundary of the site. The trench was excavated to a maximum depth of 0.40m to the level of the natural deposits. No significant archaeological features were encountered.

6.16.2 The natural subsoil consisted of reddish brown sandy clay and contained *c* 5% small subrounded stones. Overlying this was a 0.05m thick layer of pale yellow brown clayey sand subsoil with *c* 5% small subrounded stones and *c* 2% medium subrounded stones. It was truncated by three north/south orientated field drains, all between approximately 0.20m and 0.23m wide and approximately 0.20m deep. Hand excavated slots across them revealed 0.13m diameter orange ceramic drain pipes at the bases of their cuts. These deposits and drains were capped by 0.40m thick dark brown sandy silt topsoil.

6.17 TRENCH 16

6.17.1 Trench 16, 30m long by 2m wide, and orientated north-west/south-east, was situated in the centre-north of the site. The trench was excavated to a maximum depth of 0.40m to the level of the natural deposits. No significant archaeological features were encountered.

6.17.2 The natural subsoil consisted of orangey red clayey sand, and contained *c* 10% small subrounded stones. An irregular-shaped humic sandy clay-filled depression in the top of the natural deposit was interpreted as a natural hollow or a tree throw. It was half sectioned but found to contain no artefactual evidence. Overlying these was a 0.15m thick layer of pale grey sandy silty clay subsoil with *c* 5% small subrounded stones. It was truncated by four field drains orientated north/south. They were approximately 0.25m wide and between 0.15m and 0.20m deep. Hand excavated slots across them revealed 0.13m diameter orange ceramic drain pipes at the bases of three of them and a blue plastic drain pipe at the base of the other. These deposits were capped by 0.20m thick dark grey brown silty clay topsoil.

6.18 TRENCH 17

6.18.1 Trench 17, 15m long by 4m wide, and orientated north-west/south-east, was placed in the north of the site. The trench was excavated to a maximum depth of 0.45m to the level of the natural deposits. No significant archaeological features were encountered.

6.18.2 The natural subsoil consisted of reddish brown sandy clay and contained *c* 10% small subrounded stones and *c* 5% medium subrounded stones. This horizon sloped gently westwards following the natural slope of the field. Overlying the natural deposit was a 0.10m thick layer of pale yellow brown clayey sand subsoil with *c* 5% small subrounded stones. It was truncated by two north-east/south-west orientated field drains. One was approximately 0.20m wide and 0.17m deep with a 0.10m square orange ceramic drain pipe at its base. The second was 0.20m wide and found to contain an 0.11m diameter circular orange ceramic drain pipe at a depth of 0.43m. These deposits were capped by 0.25m thick dark brown sandy clay silt topsoil.

6.19 TRENCH 18

6.19.1 Trench 18, 30m long by 2m wide, and orientated north-west/south-east, was also in the centre-north of the site. The trench was excavated to a maximum depth of 0.45m to the level of the natural deposits. No significant archaeological features were encountered.

6.19.2 The natural subsoil consisted of orangey red clayey sand and contained *c* 15% small-medium subrounded stones. This horizon sloped gently westwards following the natural slope of the field. Overlying the natural deposit was a 0.15m thick layer of pale grey sandy silt clay subsoil with *c* 10% small subrounded stones. It was truncated by eight field drains running across the trench, all generally orientated north/south, all between approximately 0.20m and 0.30m wide and approximately 0.20m deep. Hand excavated slots across a sample of them revealed 0.13m diameter orange ceramic drain pipes at the bases of their cuts. These deposits and drains were capped by 0.25m thick dark grey brown silty clay topsoil.

6.20 TRENCH 19

6.20.1 Trench 19, 30m long by 2m wide, and orientated north-west/south-east, was placed in the north-east corner of the site. The trench was excavated to a maximum depth of 0.40m to the level of the natural deposits. No significant archaeological features were encountered.

6.20.2 The natural subsoil consisted of reddish brown sandy clay and contained *c* 15% small subrounded stones and *c* 2% medium subrounded stones. This horizon sloped gently westwards following the natural slope of the field. Overlying this was a 0.10m thick layer of pale yellow brown clayey sand subsoil with *c* 5% small subrounded stones. It was truncated by five field drains running across the trench, all generally orientated north/south, and one field drain along the trench orientated north-west/south-east. They were between 0.20m and 0.28m wide and up to 0.20m deep, all containing orange ceramic drain pipes at the bases of their cuts. These deposits and drains were capped by 0.35m thick dark brown sandy silt topsoil.

6.21 TRENCH 20

6.21.1 Trench 20, 30m long by 2m wide, and orientated north-west/south-east, was placed in the centre of the site. The trench was excavated to a maximum depth of 0.50m to the level of the natural deposits. No significant archaeological features were encountered.

6.21.2 The natural subsoil consisted of reddish brown sandy clay and contained *c* 20% small-medium subrounded stones. This horizon sloped gently westwards following the natural slope of the field. Overlying it was a 0.05m thick layer of brownish grey clayey silt subsoil with *c* 5% small subrounded stones. It was truncated by seven field drains running across the trench, all generally orientated north/south, and one field drain orientated north-west/south-east along the trench. They were approximately 0.30m wide and up to 0.20m deep. A sample of them was excavated, revealing orange ceramic drain pipes at the bases of their cuts. These deposits and drains were capped by 0.40m thick dark brown sandy silty clay topsoil.

6.22 TRENCH 21

6.22.1 Trench 21, 30m long by 2m wide, and orientated north-east/south-west, was again in the centre of the site. The trench was excavated to a maximum depth of 0.35m to the level of the natural deposits. No significant archaeological features were encountered.

6.22.2 The natural subsoil consisted of reddish orange clayey sand and contained *c* 15% small-medium subrounded stones. Overlying this was a 0.10m thick layer of light brownish grey sandy silt clay subsoil with *c* 5% small subrounded stones. The subsoil was truncated by an 0.80m wide x 0.30m deep linear feature with a concave profile which ran across the southern end of the trench. It was filled with redeposited topsoil suggesting that it was a modern feature. This may represent a modern field boundary or drain, and may be related to the modern drain that bisects the site (discussed in section *6.34*). It was truncated by two field drains orientated north-east/south-west along the length of the trench. A further three field drains were recorded running across the trench, all generally orientated north-west/south-east. They were all approximately 0.30m wide and up to 0.20m deep. These deposits and drains were capped by 0.20m thick dark greyish brown sandy silty clay topsoil.

6.23 TRENCH 22

6.23.1 Trench 22, 30m long by 2m wide, and orientated north-west/south-east, was also in the centre of the site. The trench was excavated to a maximum depth of 0.40m to the level of the natural deposits. No significant archaeological features were encountered.

6.23.2 The natural subsoil consisted of orangey red clayey sand and contained *c* 15% small-medium subrounded stones. This horizon sloped gently westwards following the natural slope of the field. Overlying this a 0.15m thick layer of

pale grey sandy silt clay subsoil with *c* 10% small subrounded stones. It was truncated by ten field drains running across the trench, all generally orientated north/south, all between approximately 0.20m and 0.30m wide and approximately 0.20m deep. Hand excavated slots across a sample of them revealed 0.13m diameter orange ceramic drain pipes at the bases of their cuts. These deposits and drains were capped by 0.25m thick dark grey brown silty clay topsoil.

6.24 TRENCH 23

6.24.1 Trench 23, 30m long by 2m wide, and orientated north-west/south-east, was again in the centre of the site. The trench was excavated to a maximum depth of 0.50m to the level of the natural deposits. No significant archaeological features were encountered.

6.24.2 The natural subsoil consisted of orangey reddish brown clayey sand and contained *c* 20% small-medium subrounded stones. This horizon sloped gently westwards following the natural slope of the field. Overlying it was a 0.08m thick layer of orangey grey sandy silt clay subsoil with *c* 10% small subrounded stones. It was truncated by four field drains running across the trench, all generally orientated north/south, all between approximately 0.20m and 0.30m wide and approximately 0.25m deep. Three of them contained 0.13m diameter orange ceramic drain pipes at the bases of their cuts, and one contained a blue plastic drain pipe. These deposits and drains were capped by 0.40m thick dark grey brown sandy clay topsoil.

6.25 TRENCH 24

6.25.1 Trench 24, 30m long by 2m wide, and orientated north-west/south-east, was placed in the west of the site. The trench was excavated to a maximum depth of 0.40m to the level of the natural deposits. No significant archaeological features were encountered.

6.25.2 The natural subsoil consisted of orangey red clayey sand and contained *c* 20% small-medium subrounded stones. This horizon sloped gently westwards following the natural slope of the field. At the eastern end of the trench, the natural deposit was truncated by a 1.20m wide irregular-shaped clayey sand-filled feature. Upon excavation it was revealed to have irregular sides and base, and produced no artefactual evidence. It was therefore interpreted as a natural hollow or a tree throw. Overlying the natural deposit and this feature was a 0.10m thick layer of pale grey sandy silty clay subsoil with *c* 10% small subrounded stones. It was truncated by two field drains, orientated north/south. They were approximately 0.25m wide and 0.20m deep. These deposits were capped by 0.25m thick greyish dark brown sandy silty clay topsoil.

6.26 TRENCH 25

6.26.1 Trench 25, 10m long by 6m wide, and orientated north-west/south-east, was positioned close to the site's eastern boundary. The trench was placed in line

with the projected alignment of ditch ***31*** in order to plot its actual alignment and further ascertain its date and character. The trench was excavated to a maximum depth of 0.60m to the level of the natural deposits.

6.26.2 The natural subsoil, ***38***, consisted of red-orange clayey sand and contained *c* 10% small-medium subrounded stones. This horizon sloped gently westwards following the natural slope of the field.

6.26.3 Natural deposit ***38*** was truncated by a linear north/south aligned ditch, ***37***, observed running across the trench at its eastern end at 39.28m OD (Fig 4). It was 2.70m wide x 1m deep. Its eastern side sloped gradually with a gradual convex break of slope at 38.95m OD. Its western side again sloped gradually towards the base of the ditch, but was truncated by field drain ***39*** towards the top of the cut. A 1.50m wide hand-excavated slot across it revealed three distinct fills (contexts ***34*** – ***36***). Its primary fill, ***36***, comprised 0.20m thick mid blue-grey sandy clay, overlaid by a 0.37m thick orangey brown grey sandy clay deposit, ***35***. The upper fill of the ditch comprised 0.45m thick orangey grey silty clay, ***34***. None of the ditch fills produced any artefactual evidence.

6.26.4 Ditch ***37*** was overlaid by a 0.20m thick layer of light grey sandy silty clay subsoil, ***33***, with *c* 10% small-medium subrounded stones, which was in turn truncated by a post-medieval field drain, ***39***. These deposits were capped by 0.41m thick dark greyish brown silty clayey sand topsoil, ***32***.

6.27 TRENCH 26

6.27.1 Trench 26, 15m long by 4m wide, and orientated north-east/south-west, was situated in the south-west of the site. The trench was excavated to a maximum depth of 0.50m to the level of the natural deposits. No significant archaeological features were encountered.

6.27.2 The natural subsoil consisted of orange clayey sand and contained *c* 15% small-medium subrounded stones. Overlying this was a 0.10m thick layer of grey brown silty sandy clay subsoil with *c* 5% small-medium subrounded stones. It was truncated by two north/south orientated field drains, and one field drain orientated north-east/south-west. They were between 0.20m and 0.30m wide and 0.20m deep. Hand excavated slots across them revealed 0.10m diameter orange ceramic drain pipes at the bases of their cuts. These deposits were capped by 0.35m thick dark brown sandy clay silt topsoil.

6.28 TRENCH 27

6.28.1 Trench 27, 15m long by 4m wide, and orientated north-west/south-east, was placed at the site's western boundary. The trench was excavated to a maximum depth of 0.50m to the level of the natural deposits. No significant archaeological features were encountered.

6.28.2 The natural subsoil consisted of orange clayey sand and contained *c* 20% small-medium subrounded stones. Overlying this was a 0.10m thick layer of

grey brown silty clayey sand subsoil with *c* 5% small-medium subrounded stones. It was truncated by two field drains, one orientated north/south, and one orientated north-east/south-west. They were approximately 0.20m wide and 0.20m deep. Hand excavated slots across them revealed 0.10m diameter orange ceramic drain pipes at the bases of their cuts. These deposits were capped by 0.30m thick dark brown sandy clay silt topsoil.

6.29 TRENCH 28

6.29.1 Trench 28, 15m long by 4m wide, and orientated north-east/south-west, was also situated in the north-west of the site. The trench was excavated to a maximum depth of 0.55m to the level of the natural deposits. No significant archaeological features were encountered.

6.29.2 The natural subsoil consisted of orange clayey sand and contained *c* 10% small-medium subrounded stones. Overlying this was a 0.10m thick layer of grey brown silty clayey sand subsoil with *c* 5% small-medium subrounded stones. It was truncated by two field drains, one orientated north/south and one orientated north-east/south-west. They were between 0.20m and 0.30m wide and 0.30m deep, with 0.10m diameter orange ceramic drain pipes at the bases of their cuts. These deposits were capped by 0.35m thick dark brown sandy clay silt topsoil.

6.30 TRENCH 29

6.30.1 Trench 29, 15m long by 4m wide, and orientated north-east/south-west, was placed in the south-central area of the site. The trench was excavated to a maximum depth of 0.40m to the level of the natural deposits. No significant archaeological features were encountered.

6.30.2 The natural subsoil consisted of dark orange clayey sand and contained *c* 10% small-medium subrounded stones. Overlying this was a 0.10m thick layer of grey brown silty clayey sand subsoil with *c* 5% small-medium subrounded stones. It was truncated by two field drains, one orientated north-west/south-east and one orientated north/south. They were between 0.20m and 0.30m wide and up to 0.30m deep, with 0.10m diameter orange ceramic drain pipes at the bases of their cuts. These deposits were capped by 0.25m thick dark brown silty sand topsoil.

6.31 TRENCH 30

6.31.1 Trench 30, 45m long by 2m wide, and orientated east/west, was situated in the north-east corner of the site and to the north of Trench 11. The trench was positioned in line with the projected alignment of ditch cuts ***31*** and ***37*** in order to plot its actual alignment to their north and to ascertain further information as to its date and character. Also, the trench was made much longer than average so that the area close to the ditch could be evaluated for associated features. The trench was excavated to a maximum depth of 0.45m to the level of the natural deposits.

6.31.2 The natural subsoil, ***46***, consisted of red-orange clayey sand and contained *c* 10% small-medium subrounded stones. This horizon sloped gently south-westwards following the natural slope of the field.

6.31.3 Natural deposit ***46*** was truncated by a linear north/south aligned ditch, ***45***, observed running across the trench at its western end at 35.58m OD (Fig 4). It was 1.90m wide x 0.65m deep. Its sides sloped gradually at the top of the cut with a break of slope at 38.38m OD, then became steep towards the gently rounded base. A 0.70m wide hand-excavated slot across it revealed three distinct fills (contexts ***42*** – ***44***). Its primary fill, ***44***, comprised 0.11m thick mid blue-grey sandy clay, overlaid by a 0.25m thick greyish blue brown clayey sand deposit, ***43***. The upper fill of the ditch comprised 0.26m thick orangey grey brown sandy clay, ***42***. A sherd of green glazed pottery recovered from the top of fill ***42*** represents the only artefactual evidence from ditch ***45***.

6.31.4 Ditch ***45*** was overlaid by a 0.21m thick layer of light grey sandy clay subsoil, ***41***, with *c* 10% small subrounded stones. This deposit was in turn truncated by four north-east/south-west orientated post-medieval field drains. These deposits were capped by 0.35m thick dark greyish brown sandy silty clay topsoil, ***40***.

6.32 TRENCH 31

6.32.1 Trench 31, 20m long by 4m wide, and orientated north-east/south-west, was again placed close to the site's eastern boundary. The trench was positioned in line with the projected alignment of a large ditch observed in Trenches 11, 25 and 30 (contexts ***31/37/45***), in order to plot more sections of its actual alignment and further ascertain its date and character. The trench was excavated to a maximum depth of 0.50m to the level of the natural deposits.

6.32.2 The natural subsoil, ***56***, consisted of orange clayey sand and contained *c* 10% small-medium subrounded stones.

6.32.3 Natural deposit ***56*** was truncated by a linear north/south aligned ditch, ***55***, along the entire length of the trench, at a height of between 38.25m OD at its southern end and 37.06m OD at its northern end (Fig 4). Ditch ***55*** had a maximum width of 3m x a maximum depth of 1.20m. Its sides sloped gradually with a gradual break of slope towards a gently rounded base. A 1.20m wide hand-excavated slot across it revealed four distinct fills (contexts ***51–54***). Its primary fill, ***54***, comprised 0.20m thick light grey clayey coarse sand, overlaid by a 0.25m thick greyish orange clayey sand deposit, ***53***. Both these fills were deposited against the eastern edge of the ditch. They were overlaid by a mid grey clayey silty sand deposit, ***52***, up to 0.66m thick. The upper fill of the ditch, ***51***, comprised 0.16m thick mid brown silty sandy clay. None of the ditch fills produced any artefactual evidence.

6.32.4 Ditch ***55*** was overlaid by a 0.20m thick layer of mid brown clayey silty sand subsoil, ***50***, with *c* 10% small-medium subrounded stones, which was in turn

truncated by two north/south orientated post-medieval field drains, ***48*** and ***49***. These deposits were capped by 0.30m thick dark greyish brown silty clayey sand topsoil, ***47***.

6.33 TRENCH 32

6.33.1 Trench 32, 15m long by 2m wide, and orientated north-west/south-east, was placed in the south-east corner of the site. The trench was positioned in line with the projected alignment of a large ditch recorded in Trenches 11, 25, 30, and 31, in order to plot the ditch at the southern extent at the site, and to ascertain further information as to its date and character. The trench was excavated to a maximum depth of 0.45m to the level of the natural deposits.

6.33.2 The natural subsoil, ***63***, consisted of red-orange clayey sand and contained *c* 10% small-medium subrounded stones.

6.33.3 Natural deposit ***63*** was truncated by a linear north/south aligned ditch, ***62***, observed running across the trench at its eastern end at 40.50m OD (Fig 4). It was a maximum of 2.90m wide x 1m deep, with gradually sloping sides and a rounded base. A 0.80m wide hand-excavated slot across it revealed three distinct fills (contexts ***59 – 61***). Its primary fill, ***61***, comprised 0.40m thick mid yellowish blue grey silty sand, overlaid by a 0.33m thick orangey grey sandy clay deposit, ***60***. The upper fill of the ditch comprised 0.20m thick greyish orange grey sandy clay, ***59***. None of these fills produced artefactual evidence.

6.33.4 Ditch ***62*** was overlaid by a 0.06m thick layer of light grey silty clay subsoil, ***58***, with *c* 10% small subrounded stones. This deposit was in turn truncated by an north-west/south-east orientated post-medieval field drain. These deposits were capped by 0.38m thick dark greyish brown sandy silty clay topsoil, ***57***.

6.34 TRENCH 33

6.34.1 Trench 33, 37m long by 2m wide, and orientated north-west/south-east, was situated close to the site's eastern boundary. The western end of the trench was positioned over a north-east/south-west terraced slope, the alignment of which suggested it to be modern landscaping associated with the site's present function as a playing field. Also, the trench was designed to evaluate the area to the west of the ditch recorded in Trenches 11, 25, and 31, and was extended 7m in order to record its alignment. The trench was excavated to a maximum depth of 1.10m.

6.34.2 The natural subsoil consisted of red-orange clayey sand and contained *c* 10% small-medium subrounded stones. This horizon sloped gently south-westwards following the natural slope of the field.

6.34.3 The natural deposit was truncated by a 1.90m wide linear north/south aligned ditch observed running across the trench at its eastern end, filled with mid brown sandy clay. This was undoubtedly the same as the ditch recorded in

Trenches 11, 25, 30, 31, and 32, but due to time constraints this feature remained unexcavated.

6.34.4 The ditch and natural deposit were overlaid by a 0.21m thick layer of light grey sandy clay subsoil with *c* 10% small subrounded stones.

6.34.5 The terrace at the western end of the trench was excavated by machine. Below the slope, which comprised redeposited topsoil, a 5.70m wide north-east/south-west linear ditch was revealed. Its fill was subsequently completely removed by machine to a depth of 1.10m. The ditch had gently sloping sides towards a gently rounded base and contained a single fill comprising mid brown silty clayey sand, which appeared probably to be redeposited topsoil. A circular orange ceramic drain pipe along the base of the ditch indicated its function as a post-medieval drainage feature. A blue plastic drain pipe was also observed along the eastern side of the ditch, apparently put in during 1994 (Peter Barker pers comm).

6.35 TRENCH 34

6.35.1 Trench 34, 15m long by 4m wide, and orientated north-east/south-west, was located near to the eastern boundary of the site. The trench was excavated to a maximum depth of 0.42m to the level of the natural deposits. No significant archaeological features were encountered.

6.35.2 The natural subsoil consisted of orangey reddish brown sandy clay and contained patches of sandy clay with frequent small-medium subrounded stones. This horizon sloped gently westwards following the natural slope of the field. It was truncated by two 0.20m deep irregular-shaped clayey sand-filled features. Upon excavation they were revealed to have irregular sides and irregular bases; they produced no artefactual evidence. They were therefore interpreted as natural hollows or tree throws. Overlying the natural deposit and these features was a 0.12m thick layer of orangey greyish sandy silty clay subsoil with *c* 10% small subrounded stones. It was truncated by three north/south orientated field drains, approximately 0.20m wide and 0.20m deep. These deposits were capped by 0.25m thick greyish dark brown sandy silty clay topsoil.

6.36 TRENCH 35

6.36.1 Trench 35, 10m long by 6m wide, and orientated north-east/south-west, was placed at the southern boundary of the site. The trench was excavated to a maximum depth of 0.50m to the level of the natural deposits. No significant archaeological features were encountered.

6.36.2 The natural subsoil consisted of orangey brown clayey sand and contained *c* 10% small-medium subrounded stones. Overlying this was a 0.10m thick layer of grey brown silty clayey sand subsoil with *c* 5% small-medium subrounded stones. It was truncated by a 0.30m wide x 0.20m deep, north/south orientated

field drain, which contained a 0.10m diameter orange ceramic drain pipe at its base. These deposits were capped by 0.20m thick brown silty sand topsoil.

6.5 FINDS

6.5.1 In total, four fragments of artefacts were recovered during the excavation, three fragments from Trench 11, and one from Trench 30. The assemblage consisted of pottery dating to the medieval period, the single fragment from Trench 30 probably dating from between the late twelfth to mid thirteenth century.

6.5.2 Secondary ditch fill ***29*** of ditch ***31*** in Trench 11 produced three locally made, sandy oxidised body sherds of the same fabric.The fabric comprises a mid orange clay which is streaked with small white quartz flecks, and micaceous inclusions. The sherds are badly abraded and worn, with only faint impressions of combed decoration on their outer surfaces.

6.5.3 The uppermost fill, ***42***, of ditch ***45*** in Trench 30 produced a single partially reduced body sherd from a pitcher. The fabric consists of a yellow buff with coarse grit inclusions. A streak of pale olive green glaze with copper splash remains on the exterior. The reduced core has a pinky grey appearance. It was probably locally made, but has similar petrological patterns and parallels to forms deriving from Carlisle.

7. DISCUSSION

7.1 CONCLUSIONS

7.1.1 The archaeological evaluation of the site identified several surviving archaeological features, principally a large, apparently medieval boundary ditch, as well as an undated ditch and a gully, which are of considerable local significance. Together they may form the remnants of a medieval field system.

7.1.2 ***Medieval:*** the ditch sections recorded in several trenches in the east of the site (Trenches 11, 25, 30, 31, 32 and 33) were clearly all elements of the same feature, which forming a north/south orientated linear alignment which ran for over 150m across the site (Fig 3); it was clearly a major feature in the landscape. The ditch sections excavated all shared very similar profiles and some of their fills, particularly their primary fills, appear to have been a uniform deposit throughout the length of the ditch. The artefactual evidence comprised just four pottery sherds, dated to the medieval period, even though a total length of 6.5m of the ditch was hand excavated during the evaluation. Trenches in the area of the ditch revealed an absence of archaeological features, which, together with the paucity of finds from the ditch, suggests little activity in its vicinity. It may be suggested therefore that the ditch lay within an open arable or pastoral landscape and may represent a medieval field or land boundary.

7.1.3 ***Undated features:*** two linear features were recorded. The fact that they were sealed by subsoil would suggest they predate the post-medieval period. The ditch recorded in Trench 5 and the ditch terminus recorded in Trench 9 shared the same alignments and morphologies suggesting they represent a single north-east/south-west aligned ditch (Fig 3). No artefactual evidence was recovered, but the ditch appears perpendicular to the large ditch discussed above (*7.1.2*), suggesting it may be part of an adjoining field system. The gully recorded in Trench 2 in the west of the site also failed to produce any dating evidence, and although it cannot be dated with certainty, it may belong to the smae field system.

7.1.4 ***Post-medieval period:*** the surviving archaeological evidence comprised features pertaining to a relict post-medieval pastoral agricultural landscape; the area being subject to enclosure in 1770 (Cumbria Record Office, Carlisle - QRE/1/90). Much of the land was improved pasture and many of the field contained a large number of ceramic drains, the majority of which being aligned north-west/south-east, following the general slope of the field, and these emphasise the wet conditions of the topography. Some of the evaluation trenches contained up to eight drains, many of them intercutting, suggesting a chronological succession of individual drains probably dating from the nineteenth century onwards. Plastic drains indicate very recent drainage also. The site was bisected by a terrace (Fig 3), thought to be a modern earthwork associated with attempts to level the playing fields in the recent past. Trench 33

revealed that it sealed a modern ditch below the earthwork, carrying a ceramic drain pipe at its base.

7.2 IMPACT AND RECOMMENDATIONS

7.2.1 The evaluation has highlighted a locally important archaeological resource within the study area, in particular a large medieval ditch located in the east of the site. The recovery of just four pottery sherds from its fills suggests an absence of medieval occupation in its vicinity, and the paucity of archaeological features across the study area suggests it has low archaeological potential. The several sections excavated across the medieval ditch during the evaluation are considered sufficient to characterise and date the feature, and to plot its alignment. Therefore, despite the fact that topsoil stripping and the proposed Pirelli warehouse building are likely to damage the identified archaeological deposits, it is considered unlikely that further work will add anything of archaeological significance.

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APPENDIX 1: PROJECT BRIEF

1 SITE DESCRIPTION AND SUMMARY

Site Name: Pirelli (UK) Tyres Ltd, Dalston Road, Carlisle **Grid Reference:** NY 3890 5360
Planning Application Reference Number: 1/02/0511 **Land Use and Area:** Sports playing field, 3.85ha

Detailed proposals and tenders are invited from appropriately resourced, qualified and experienced archaeological contractors to undertake the archaeological project outlined by this brief and to produce a report on that work.

2. PLANNING BACKGROUND

- Cumbria County Council's Archaeology Service has been consulted by Carlisle City Council regarding a planning application for a warehouse with associated hardstanding/ paving and relocation of sports playing field at land at Pirelli (UK) Tyres Limited, Dalston Road, Carlisle.

- The scheme affects an area considered to have a high archaeological potential, identified from the County Sites and Monuments Record. Consequently Carlisle City Council has been advised to require further information on the archaeological interest of the site (an evaluation), to be undertaken before any development commences.

- This advice is given in accordance with guidance given in Planning Policy Guidance note 16 (Archaeology and Planning) and with policy of the County Structure Plan and Carlisle District Local Plan.

3. ARCHAEOLOGICAL BACKGROUND

The site lies within the vicinity of Cummersdale Roman fort. Aerial reconnaissance produced evidence for a large Roman fort, the bulk of which lies underneath the present village at High Cummersdale. The fort may cover as much as 6-8 acres, with an associated vicus. *Roman finds have also been reported from Caldewbank and Murrell Hill. There is also much evidence for prehistoric activity in the Caldew Valley. Within the vicinity of the development site this includes the find of a stone axe in High Cummersdale village and a flint arrowhead at High Cummerdale Farm.*

There is, consequently, good reason to believe that remains of archaeological interest survive within the area of the proposed development

4. SCOPE OF THE PROJECT

Objectives

- To collate and assess existing information about the archaeology of the site and to determine as fully as possible the quality, extent and importance of any archaeological remains within the development area.

Work Required

- A desk-based assessment of the existing resource, which should be undertaken before any work commences on site. This should include an assessment of primary and secondary maps and documents relating to the site, including records and aerial photographs held by the County Sites and Monuments Record in Kendal as well as records held by the County Records Office at Carlisle.

- The excavation of a series of trial trenches, and the investigation and recording of deposits and features of archaeological interest identified within those trenches. Initial topsoil removal can be undertaken by machine, but subsequently trenches must be cleaned and features investigated by hand. A minimum sample of c 5% of the total site area should be investigated. The trench layout should include 'boxes' as well as linear trenches.

5. PROJECT DESIGN

- Before the project commences a project proposal must be submitted to and approved by the County Archaeologist.

- Proposals to meet this Brief should take the form of a detailed project design prepared in accordance with the recommendations of The Management of Archaeological Projects, 2nd ed. 1991, and must include:

  - A description of the excavation sampling strategy and recording system to be used
  - A description of the finds and environmental sampling strategies to be used
  - A description of the post excavation and reporting work that will be undertaken
  - Details of key project staff, including the names of the project manager, site supervisor, finds and environmental specialists and any other specialist sub-contractors to be employed
  - Details of on site staffing, expressed in terms of person days
  - A projected timetable for all site work and post excavation work

- The project design should identify the proposed locations of trial trenches. Final trench locations will however be determined following the desk-based assessment and must be agreed with the County Archaeological Service.

- Any significant variations to the proposal must be agreed by the County Archaeologist in advance.

6. REPORTING AND PUBLICATION

- The archaeological work should result in a report, this should include as a minimum:

  - A site location plan, related to the national grid

- ❖ A concise, non-technical summary of the results
- ❖ A description of the methodology employed, work undertaken and the results obtained
- ❖ Plans and sections at an appropriate scale showing the location and position of deposits and finds located
- ❖ A list of, and dates for, any finds recovered and a description and interpretation of the deposits identified
- ❖ A description of any environmental or other specialist work undertaken and the results obtained

- Three copies of the report should be deposited with the County Sites and Monuments Record within six months of completion of fieldwork. This will be on the understanding that the report will be made available as a public document through the County Sites and Monuments Record.

- Should further archaeological work result from the evaluation, the results of the evaluation will need to be made available for inclusion in a summary report to a suitable regional or national archaeological publication.

7. THE ARCHIVE

- An archive must be prepared in accordance with the recommendations of *The Management of Archaeological Projects,* 2nd ed. 1991, and arrangements made for its deposit with an appropriate repository. A copy shall also be offered to the National Monuments Record.

- The landowner should be encouraged to transfer the ownership of finds to a local or relevant specialist museum. In this case Tullie House museum is the most likely repository. The museum's requirements for the transfer and storage of finds should be discussed before the project commences.

- The County Archaeology Service must be notified of the arrangements made.

8. PROJECT MONITORING

- One weeks notice must be given to the County Archaeology Service prior to the commencement of fieldwork.

- Fieldwork will be monitored by the Assistant Archaeologist on behalf of the local planning authority.

9. FURTHER REQUIREMENTS

- It is the archaeological contractor's responsibility to establish safe working practices in terms of current health and safety legislation, to ensure site access and to obtain notification of hazards (eg. services, contaminated ground, etc.).

- The Code of Conduct of the Institute of Field Archaeologists must be followed.

10. FURTHER INFORMATION

- For further information regarding this brief, contact

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County Offices
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Cumbria LA9 4RQ
Tel: 01539 773431

For further information regarding the County Sites and Monuments Record, contact

Bette Hopkins
Sites and Monuments Records Officer
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APPENDIX 2: PROJECT DESIGN

June 2002

Oxford Archaeology North

LAND AT PIRELLI (UK) TYRES LTD, DALSTON ROAD, CARLISLE, CUMBRIA

ARCHAEOLOGICAL EVALUATION

Proposals

The following project design is offered in response to a request from Mr RJ Whittaker, of Architects Plus, for an archaeological evaluation in advance of the proposed development of land at Pirelli (UK) Tyres Ltd, Dalston Road, Carlisle, Cumbria.

1. INTRODUCTION

1.1 Cumbria County Council's Archaeology service has been consulted by Carlisle City Council regarding a planning application for a warehouse with associated hardstanding/paving and relocation of sports playing field at land at Pirelli (UK) Tyres Ltd, Dalston Road, Carlisle, Cumbria (NY 3890 5360). The scheme affects an area of archaeological interest, recorded on the County Sites and Monuments Record. Consequently, the Cumbria County Archaeology Service has recommended that an evaluation of the site is necessary to inform further the planning process. The following document represents a project design to carry out the evaluation of the site as defined in a brief supplied to the client by the Assistant Archaeologist of Cumbria Archaeology Service.

1.2 The site lies within the vicinity of Cummersdale Roman fort. Aerial photography has revealed evidence for a large fort, possibly covering as much as 6-8 acres, the bulk of which lies underneath the present village of High Cummersdale. Unpublished excavations by the late Professor Barry Jones concentrated on one of the gateways to the fort, but no definitive dating evidence was produced to place the site within the established sequence of Roman activity in this part of Cumbria; the two Republican *denarii* that were recovered could have circulated up until the Hadrianic period. The reasons for the fort so close to Carlisle remain enigmatic, but it may have functioned as a holding camp while the fort at Carlisle was under construction, it may have served as a temporary camp to house soldiers returning from the withdrawal from Scotland in AD 87, or may have been connected with the Stanegate frontier. Roman finds have also been reported from Caldew Bank and Murrell Hill. Prehistoric activity is also attested in the Caldew valley, including a stone axe from High Cummersdale village and a flint arrowhead from High Cummersdale Farm.

1.3 Oxford Archaeology North (OA North) has considerable experience of excavation of sites of all periods, having undertaken a great number of small and large scale projects throughout Northern England during the past 20 years, including work in Carlisle, Appleby, Kendal, Penrith, and other towns in Cumbria. Evaluations, assessments, watching briefs and excavations have taken place within the planning process, to fulfil the requirements of clients and planning authorities, to very rigorous timetables. OA North is an Institute of Field Archaeologists (IFA) registered organisation, registration number 17, and all its members of staff operate subject to the IFA Code of Conduct.

1.4 OA North, in its former guise as the Lancaster University Archaeological Unit, has particular experience of the archaeology of the Cummersdale area having undertaken work in Carlisle, Wigton, Old Carlisle and other villages around the city.

2. OBJECTIVES

2.1 The following programme has been designed to evaluate the archaeological deposits affected by the proposed development of the site. The required stages to achieve these ends are as follows:

2.2 ***Desk-Based Survey***
To undertake a desk-based survey of the existing resource including primary and secondary maps and documents.

2.3 ***Archaeological Evaluation***
To undertake evaluation trenching of *c* 5% of the proposal area (an area of *c* 1925m^2) to determine the quality, extent and importance of any archaeological remains on the site.

2.4 ***Post-Excavation and Report Production***
An evaluation report will be produced for the client within eight weeks of completion of the fieldwork. A site archive will be produced to English Heritage guidelines (1991) and in accordance with the *Guidelines for the Preparation of Excavation Archives for Long Term Storage* (UKIC 1990).

3. METHODS STATEMENT

3.1 The following work programme is submitted in line with the stages and objectives of the archaeological work summarised above.

3.2 **DESK-BASED SURVEY**

3.2.1 The following will be undertaken as appropriate, depending on the availability of source material. The level of such work will be dictated by the time scale of the project.

3.2.2 ***Documentary and Cartographic Material:*** This work will assess the full range of potential sources of information relating to the area affected by the proposed development. Material in the Cumbria Sites and Monument Record, appropriate sections of County histories, early maps (printed and manuscript), and such primary documentation (tithe and estate plans etc.) as may be reasonably available will be assessed. Particular attention will be paid to field and place names recorded on early cartographic sources, field boundaries, woodlands and routes, as these often provide important evidence of archaeological activity and transformation of the historic landscape. Available published and unpublished documentary sources will also be examined and assessed. Organisations/Institutions to be consulted will include the Cumbria Record Office (Carlisle Office).

3.2.3 ***Physical Environment:*** A rapid desk-based compilation of geological (both solid and drift), pedological, topographical and palaeoenvironmental

information will be undertaken in order to set the archaeological features in context. Any engineering and/or borehole data relating to the site will also be examined.

3.3 ARCHAEOLOGICAL EVALUATION

3.3.1 Following discussion with the Cumbria Archaeology Service regarding positioning of the trenches a *c* 5% sample of the proposal area (an area of *c* 1925m^2) will be subject to evaluation trenching (equivalent to approximately 35 1.8m x 30m trenches), using a combination of standard linear evaluation trenches and box-style trenches. The uppermost modern surface will be removed by machine (fitted with a toothless ditching bucket) under archaeological supervision to the surface of the first significant archaeological deposit. Thereafter, the trenches will be cleaned by hand, using either hoes, shovel scraping, and/or trowels depending on the subsoil conditions.

3.3.2 Any investigation of intact archaeological deposits will be exclusively manual. Selected pits and postholes will normally only be half-sectioned, linear features will be subject to no more than a 10% sample, and extensive layers will, where possible, be sampled by partial rather than complete removal. It is hoped that in terms of the vertical stratigraphy, maximum information retrieval will be achieved through the examination of sections of cut features. All excavation, whether by machine or by hand, will be undertaken with a view to avoiding damage to any archaeological features which appear worthy of preservation *in situ*.

3.3.3 All information identified in the course of the site works will be recorded stratigraphically, using a system, adapted from that used by Centre for Archaeology of English Heritage, with sufficient pictorial record (plans, sections and both black and white and colour photographs) to identify and illustrate individual features. Primary records will be available for inspection at all times.

3.3.4 Results of all field investigations will be recorded on *pro forma* context sheets. The site archive will include both a photographic record and accurate large scale plans and sections at an appropriate scale (1:50, 1:20 and 1:10). All artefacts and ecofacts will be recorded using the same system, and will be handled and stored according to standard practice (following current Institute of Field Archaeologists guidelines) in order to minimise deterioration.

3.3.5 The deposition and disposal of any artefacts recovered in the evaluation will be agreed with the legal owner prior to the work taking place. Except for items subject to the Treasure Act, all artefacts found during the course of the project will be donated to an appropriate receiving museum.

3.3.6 Environmental samples (bulk samples of 30 litres volume, to be sub-sampled at a later stage) will be collected from suitable deposits (i.e. the deposits are reasonably well dated and are from contexts the derivation of which can be

understood with a degree of confidence). Where such deposits are encountered, an appropriate sampling strategy will be agreed with the Cumbria County Archaeology Service.

3.3.7 Samples will also be collected for technological, pedological and chronological analysis as appropriate. If necessary, access to conservation advice and facilities can be made available. OA North maintains close relationships with Ancient Monuments Laboratory staff at the Universities of Durham and York and, in addition, employs artefact and palaeoecology specialists with considerable expertise in the investigation, excavation and finds management of sites of all periods and types, who are readily available for consultation.

3.3.8 ***Health and Safety***: OA North provides a Health and Safety Statement for all projects and maintains a Unit Safety policy. All site procedures are in accordance with the guidance set out in the Health and Safety Manual compiled by the Standing Conference of Archaeological Unit Managers (1997). A written risk assessment will be undertaken in advance of project commencement and copies will be made available on request to all interested parties.

3.3.9 The client is requested to provide information relating to services in the vicinity of the trenches, though OA North will undertake a Cat scan in advance of site commencement.

3.3.10 If necessary the trenches will be excavated to a maximum depth of 1.2m. Following completion of the evaluation, the trenches will be backfilled with the material removed in their excavation. Any other form of land reinstatement will be the responsibility of the client.

3.3.11 OA North has professional indemnity to a value of £2,000,000, employer's liability cover to a value of £10,000,000 and public liability to a value of £10,000,000. Written details of insurance cover can be provided if required.

3.3.12 Normal OA North working hours are between 9.00 am and 5.00 pm, Monday to Friday, though adjustments to hours may be made to maximise daylight working time in winter and to meet travel requirements. It is not normal practice for OA North staff to be asked to work weekends or bank holidays and should the client require such time to be worked during the course of a project a contract variation to cover additional costs will be necessary.

3.4 POST-EXCAVATION AND REPORT PRODUCTION

3.4.1 ***Archive:*** The results of Stage 3.2-3 will form the basis of a full archive to professional standards, in accordance with current English Heritage guidelines (*The Management of Archaeological Projects, 2nd edition, 1991*) and the Guidelines for the Preparation of Excavation Archives for Long Term Storage (UKIC 1990). The project archive represents the collation and

indexing of all the data and material gathered during the course of the project. The deposition of a properly ordered and indexed project archive in an appropriate repository is considered an essential and integral element of all archaeological projects by the IFA in that organisation's code of conduct.

3.4.2 This archive can be provided in the English Heritage Centre for Archaeology format, both as a printed document and on computer disks as ASCii files (as appropriate). The paper archive will be deposited with the Cumbria Record Office within six months of the completion of the fieldwork. The material archive (artefacts and ecofacts) will be deposited with an appropriate museum following agreement with the client.

3.4.3 ***Report:*** One copy of a bound and collated final report will be submitted to the Client and two copies to the County SMR within eight weeks of the completion of the fieldwork. The final report will include a copy of this project design, and indications of any agreed departure from that design. It will present, summarise, and interpret the results of the programme detailed above in order to come to as full an understanding as possible of the archaeology of the development area. In addition, recommendations for any further mitigation works and details of the final deposition of the project archive will also be made.

3.4.4 ***Confidentiality:*** The final report is designed as a document for the specific use of the client, and should be treated as such; it is not suitable for publication as an academic report, or otherwise, without amendment or revision. Any requirement to revise or reorder the material for submission or presentation to third parties beyond the project brief and project design, or for any other explicit purpose, can be fulfilled, but will require separate discussion and funding.

4. WORK TIMETABLE

4.1 ***Desk-Based Survey***

A four day period will be required to complete this element, including preparation of notes to be included in the final evaluation report.

4.2 ***Archaeological Excavation***

A ten day period is required to excavate evaluation trenching equivalent to a *c* 5% sample of the proposal area.

4.3 ***Post-Excavation and Report Production***

An evaluation report will be submitted within eight weeks of the completion of the fieldwork.

4.4 OA North can execute projects at very short notice once an agreement has been signed with the client. Two weeks notice would be sufficient to allow the necessary arrangements to be made to commence the task.

5. STAFFING PROPOSALS

5.1 The desk-based survey will be undertaken by a desktop specialist experienced in assessing information in the Sites and Monuments Records in the majority of the counties of northern England, including Cumbria.

5.2 Excavation of the evaluation trenching is likely to be supervised by an OA North project supervisor. All OA North project supervisors are highly experienced field archaeologists who have undertaken evaluation and excavation work throughout Cumbria and other parts of the North West.

5.3 Assessment of the finds from the evaluation will be undertaken by OA North's in-house finds specialist **Christine Howard-Davis BA MIFA** (OA North project officer). Christine has extensive knowledge of all finds of all periods from archaeological sites in northern England. However, she has specialist knowledge regarding glass, metalwork, and leather, the recording and management of waterlogged wood, and most aspects of wetland and environmental archaeology.

5.4 Assessment of any palaeoenvironmental samples which may be taken will be undertaken by **Elizabeth Huckerby MSc** (OA North project officer). Elizabeth has extensive knowledge of the palaeoecology of the North West through her work on the English Heritage-funded North West Wetlands Survey.

5.5 The project will be managed by **Alan Lupton, PhD MIFA** (OA North Project Manager) to whom all correspondence should be addressed.

6. MONITORING

6.1 Monitoring of the project will be undertaken by the Cumbria Archaeology Service.

6.2 Access to the site for monitoring purposes will be afforded to the Cumbria Archaeology Service at all times.

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APPENDIX 3: GAZETTEER OF SITES

Site number	**01**
Site name	High Cummersdale Axe find
NGR	NY 3390 5532
Site type	Stone Axe
Period	Prehistoric
SMR No	449
Source	CSMR, *Trans Cumberland Westmorland Antiq Archaeol Soc*, **54**, 202, 205
Description	Unpolished stone axe, 10 in long, found on the surface of a field on the west side of Cummersdale village in 1951. Now at Tullie House Museum, Accession no 56-1951. A second perforated stone axe-hammer, squarish in shape was also found in 1946 in the vicinity of the village, Tulllie House Accession no 61-1946.
Assessment	The area of the find spot lies to the south-east of the current study area and will not be directly affected by the proposals.

Site number	**02**
Site name	Arrowhead and pottery finds
NGR	NY 3393 5533
Site type	Flint arrowhead and medieval pottery
Period	Prehistoric and medieval
SMR No	13506
Source	CSMR, *Trans Cumberland Westmorland Antiq Archaeol Soc*, **89**, 52-3
Description	Fieldwalking by the CWAAS Carlisle Regional Group in 1983 recovered a Neolithic leaf-shaped arrowhead of unpatinated red/brown, which is not available locally. A total of 137 sherds of medieval pottery, 80% in the Northern Gritty ware tradition (mid twelfth-mid thirteenth century), was also recovered.
Assessment	The area lies to the south-east of the current study area and will not be directly affected by the proposals.

Site number	**03**
Site name	Cummersdale Fort
NGR	NY 3390 5530
Site type	Fort
Period	Roman
SMR No	3401
Source	Cropmark, *Trans Cumberland Westmorland Antiq Archaeol Soc*, **85**, 250-62, *Britannia* **27**, 405; **28**, 415; **29**, 382, **30**, 334
Description	During the drought of 1995 aerial photography of the flat-topped hill to the south of Cummersdale revealed a twin pair of ditches curving at the south-west corner of what was evidently a large Roman fort (*c* 4ha), the bulk of which lies under the modern village. Trial excavation in 1995 by GDB Jones of the University of Manchester confirmed the presence of the ditches, 5.5m apart and recorded two sherds of early Samian, suggesting a Flavian date for establishment of the fort. In 1996 trenches were opened on the eastern defences, the southern defences and the south-east corner of the fort, revealing traces of an earthern rampart, corner tower, metalled intervallum road and post-built internal buildings. A radiating ditch, at least 120m in length, was also seen leading to the southern gateway. Work was also carried out at 8 Gilbert Road, on a short stretch of the eastern defences, and at Caldew Road to the east of the fort, where aerial photographs had revealed several features including a radiating ditch. Excavation revealed that the extramural settlement associated with the fort was overlain by a subrectangular farmstead, compring a ditch and bank with a stone-founded internal building that produced a fragment of late Roman Huntcliff ware.

Excavation in 1997 concentrated on the southern gateway to the fort 110m west of the corner examined in 1996. Traces of internal buildings and a metalled road through the gateway were revealed.

Further work at the southern gate in 1998 revealed evidence for a possible pre-fort phase of activity in the form of two north-south ditches which were cut by the primary fort ditch. The fort may have been constructed over an earlier prehistoric site.

Assessment The area lies to the south-east of the current study area and will not be directly affected by the proposals.

Site number **04**
Site name Murrell Hill/Seven Well Bank
NGR NY 3390 5540
Site type Carved stone
Period Roman
SMR No 13879
Source Findspot, Cumberland Pacquet, 19 Nov 1878
Description A 'very fine slab of late Roman work' was discovered in 1878 at the back of James Nelson's marble works near Murrell Hill. It was over 4ft high x 3ft wide. The design represents a group under an alcove, on top of which are two lions each mounting an human head, symbolising the power of the sun over man; it is thought to be a representation of the god Mithras. A mutilated winged figure, holding a third head, is between the lions and the group below represents a mother and child. The slab was found at the bottom of a pit.
Assessment The area of the findspot lies to the north-east of the current study area and will not be directly affected by the proposals.

Site number **05**
Site name Caldewbank pottery finds
NGR NY 3392 5531
Site type Samian and medieval pottery
Period Roman and medieval
SMR No 17968
Source CSMR, *Trans Cumberland Westmorland Antiq Archaeol Soc*, **90**, 39
Description Several Roman and late medieval sherds were found in a garden at Caldewbank in 1983, now at Tullie House Museum, Accession no 92-1986.
Assessment The area of the findspot lies to the south-east of the current study area and will not be directly affected by the proposals.

Site number **06**
Site name Coin, Cummersdale
NGR NY 3390 5530
Site type Coin
Period Roman
SMR No 19160
Source CSMR, *Trans Cumberland Westmorland Antiq Archaeol Soc*, **99**, 23
Description A republican silver *denarius* of C Marius Capito was reported to have been dug up in a graden in the village in 1989.
Assessment The area of the findspot lies to the south-east of the current study area and will not be directly affected by the proposals.

Site number **07**
Site name The Cresent, Cummersdale
NGR NY 3388 5532

Site type	Carved stone
Period	Unknown
SMR No	19178
Source	CSMR, *Trans Cumberland Westmorland Antiq Archaeol Soc*, **90**, 52
Description	A triangular-shaped pebble of grey/white sandstone, perforated on one edge for suspension, maximum length 107mm, width 76.5mm, thickness 44mm, it was found hanging over a fireplace at the Crescent, Cummersdale.
Assessment	The area of the findspot lies to the south-east of the current study area and will not be directly affected by the proposals.

APPENDIX 4: SUMMARY CONTEXT LIST

Context	Trench	Category	Form
1	Trench 3	Deposit	Topsoil
2	Trench 3	Deposit	Layer, subsoil
3	Trench 3	Fill	Sub-circular Feature, Fill of *4*
4	Trench 3	Cut	Natural feature, Filled by *3*
5	Trench 3	Deposit	Natural subsoil
6	Trench 2	Deposit	Topsoil
7	Trench 2	Deposit	Layer, subsoil
8	Trench 2	Fill	Linear gully, fill of *9*
9	Trench 2	Cut	Linear Gully, filled by *8*
10	Trench 2	Deposit	Natural subsoil
11	Trench 5	Deposit	Topsoil
12	Trench 5	Deposit	Layer, subsoil
13	Trench 5	Fill	Ditch fill, fill of *14*
14	Trench 5	Cut	Ditch, filled by *13*
15	Trench 5	Deposit	Natural subsoil
16	Trench 9	Deposit	Topsoil
17	Trench 9	Deposit	Layer, subsoil
18	Trench 9	Fill	Ditch terminus fill, fill of *19*
19	Trench 9	Cut	Ditch terminus, filled by *18*
20	Trench 9	Deposit	Natural subsoil
21	Trench 11	Deposit	Topsoil
22	Trench 11	Deposit	Layer, Subsoil
23	Trench 11	Deposit	Natural subsoil
24	Trench 11	Field drain	Post-medieval field drain
25	Trench 11	Field drain	Post-medieval field drain
26	Trench 11	Fill	Fill of ditch *31*
27	Trench 11	Fill	Fill of ditch *31*
28	Trench 11	Fill	Fill of ditch *31*
29	Trench 11	Fill	Fill of ditch *31*
30	Trench 11	Fill	Primary fill of ditch *31*
31	Trench 11	Cut	Ditch, filled by *26-30*
32	Trench25	Deposit	Topsoil
33	Trench 25	Deposit	Layer, subsoil
34	Trench 25	Fill	Fill of ditch *37*
35	Trench 25	Fill	Fill of ditch *37*
36	Trench 25	Fill	Primary fill of ditch *37*
37	Trench 25	Cut	Ditch, filled by *34-36*
38	Trench 25	Deposit	Natural subsoil
39	Trench 25	Field drain	Post-medieval field drain

40	Trench 30	Deposit	Topsoil
41	Trench 30	Deposit	Layer, subsoil
42	Trench 30	Fill	Fill of ditch ***45***
43	Trench 30	Fill	Fill of ditch ***45***
44	Trench 30	Fill	Fill of ditch ***45***
45	Trench 30	Cut	Ditch, filled by ***42-44***
46	Trench 30	Deposit	Natural subsoil
47	Trench 31	Deposit	Topsoil
48	Trench 31	Field drain	Post-medieval field drain
49	Trench 31	Field drain	Post-medieval field drain
50	Trench 31	Deposit	Layer, subsoil
51	Trench 31	Fill	Fill of ditch ***55***
52	Trench 31	Fill	Fill of ditch ***55***
53	Trench 31	Fill	Fill of ditch ***55***
54	Trench 31	Fill	Fill of ditch ***55***
55	Trench 31	Cut	Ditch, filled by ***51-54***
56	Trench 31	Deposit	Natural subsoil
57	Trench 32	Deposit	Topsoil
58	Trench 32	Deposit	Layer, subsoil
59	Trench 32	Fill	Fill of ditch ***62***
60	Trench 32	Fill	Fill of ditch ***62***
61	Trench 32	Fill	Fill of ditch ***62***
62	Trench 32	Cut	Ditch, filled by ***59-61***
63	Trench 32	Deposit	Natural subsoil

APPENDIX 5: FINDS LIST

Context	OR	Material	Category	No	Description	Date
29	1001	Ceramic	Vessel	3	Three sandy orange sherds in an oxidised fabric	Medieval
42	1002	Ceramic	Vessel	1	A splashed green glaze pitcher body sherd in a yellow buff coarse grit fabric.	Late twelfth to mid thirteenth century

ILLUSTRATIONS

FIGURES

Figure 1: Location Map

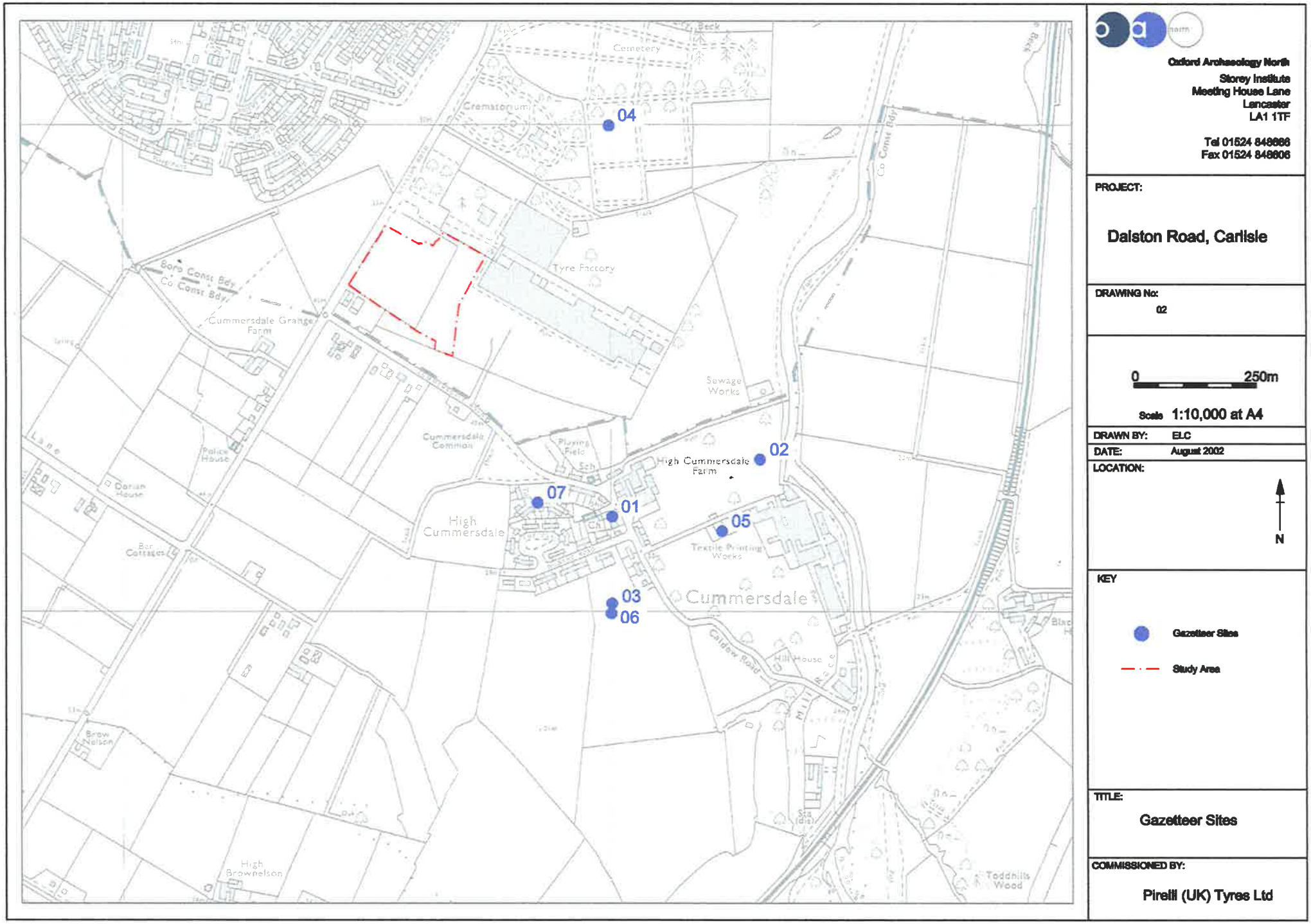

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Figure 2 : Gazetteer Sites

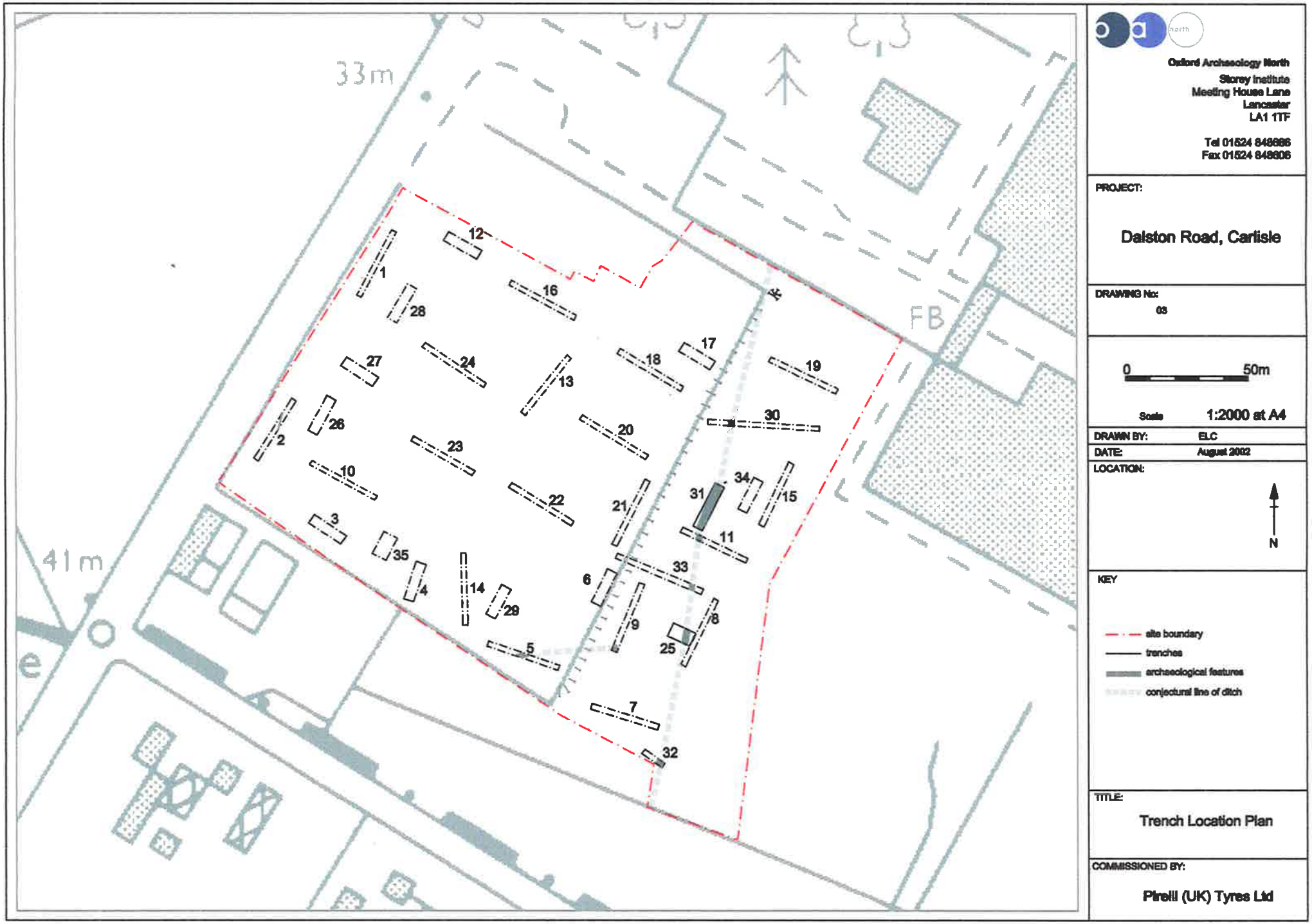
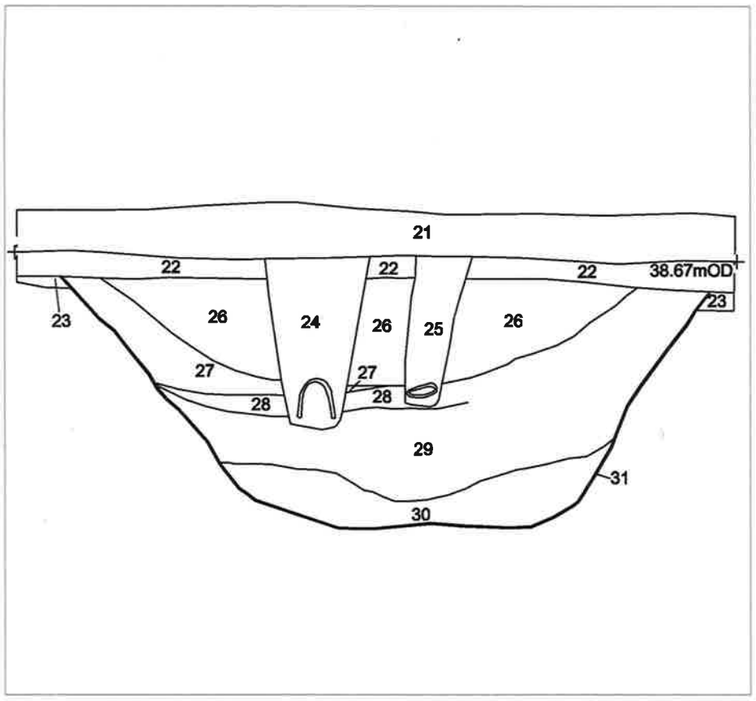
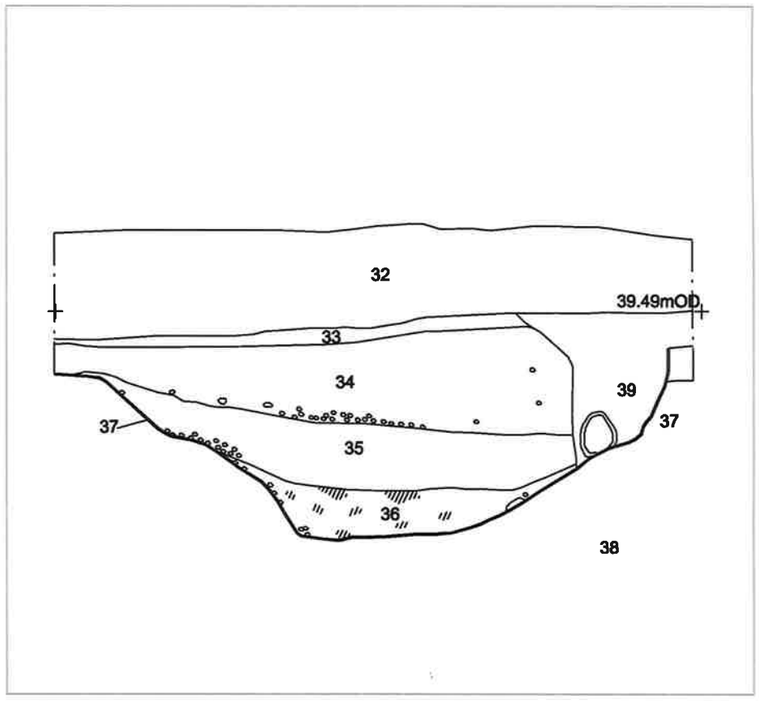


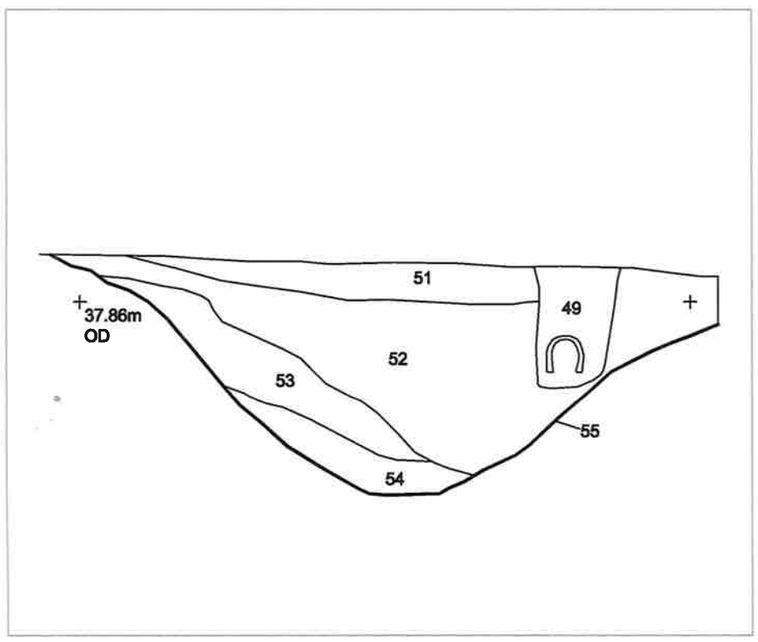
Figure 3 : Trench Location Plan



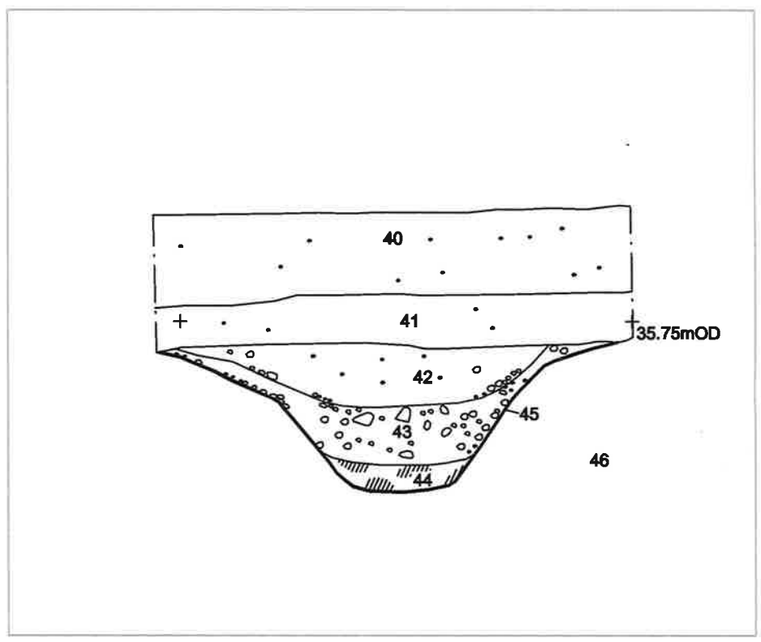
North-facing section through ditch 31, Trench 11



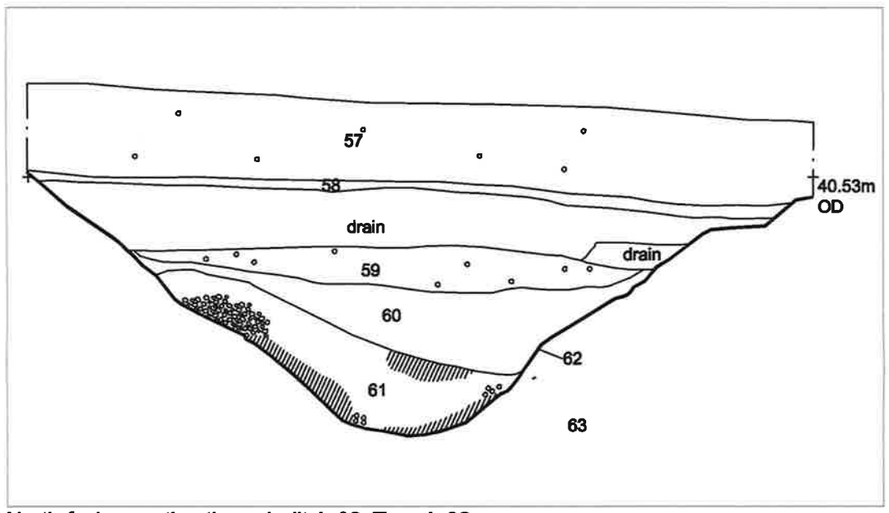
North-facing section through ditch 37, Trench 25



North-facing section through ditch 55, Trench 31



North-facing section through ditch 45, Trench 30



North-facing section through ditch 62, Trench 32

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PROJECT:	Dalston Road, Cumbria
DRAWING No:	04
SCALE:	1:25 at A3
TITLE:	Sections
CLIENT	Pirelli (UK) Tyres Ltd
DRAWN BY:	ELC
DATE:	August 2002

SCALE:

0 0.5m

Figure 4 : Sections Through Trenches 11, 25, 31, 30 and 32

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