



# **BETHUNE PARK PRIMARY SCHOOL, PICKERING ROAD, KINGSTON UPON HULL**

## **Archaeological Desk- Based Assessment**



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**CAPITA SYMONDS AND  
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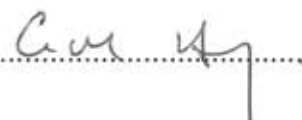
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## SUMMARY

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In December 2011 Capita Symonds commissioned Oxford Archaeology North (OA North) to undertake a desk-based assessment in advance of detailed design proposals for development at Bethune Park Primary School, off Pickering Road, Kingston Upon Hull (NGR TA 0505 2720). The desk-based assessment was undertaken in order to provide an understanding of the likely impact of proposed development on heritage assets.

Seven heritage assets were identified within the study area as a result of the desk-based assessment and walkover survey, which relate to differing phases in the historical development of the local landscape. These include agriculture during the medieval or early post-medieval period represented by ridge and furrow (Site 6), enclosure of the common into fields (field boundary, Site 5), the industrialisation of the fringes of Hull (brick works, Site 3), land drainage (pumping windmill, Site 4), and the provision of amenities for newly established residential districts (Pickering Road School, Site 2, and Bethune Park Primary School, Site 7). Due to their ubiquitous occurrence, their poor state of preservation or their relatively modern dates, most of the sites were not deemed to be of individual significance, apart from the brick works (Site 3) and windmill (Site 4), which are of *low local importance*, and the ridge and furrow (Site 6), which is of *local/borough importance* due to its possible medieval date.

Only three of the identified sites lie within the boundary of the school land holding, a post-medieval field boundary (Site 5), ridge and furrow of medieval or early post-medieval date (Site 6) and the school itself (Site 7). The only other site that might potentially be affected by any proposed works is a group of circular features (Site 1) that were listed in the Humber Sites and Monuments Record (HSMR) and which had been identified through aerial photography. However, these are of uncertain origin and are possibly natural features. Additionally, there is some potential for the presence of buried and hitherto unidentified remains of prehistoric or Romano-British date.

In order to reduce the impact of any proposed development, mitigation has been proposed in the form of topographic and geophysical surveys and a watching brief within the area where ridge and furrow (Site 6) has been identified and adjacent open areas. This will enable the remains to be preserved by record and will also present an opportunity to collect artefactual dating evidence. It will also allow for the examination of sub-surface horizons for any artefacts or features that might be associated with the circular features (Site 1), which are of uncertain extent and character, and other remains which are currently unknown.

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The desk-based assessment and walkover survey were undertaken and reported upon by Alastair Vannan. Emily Mercer managed the project and edited the report, which was illustrated by Mark Tidmarsh.

## 1. INTRODUCTION

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### 1.1 CIRCUMSTANCES OF THE PROJECT

- 1.1.1 In December 2011 Capita Symonds commissioned Oxford Archaeology North (OA North) to undertake a desk-based assessment in advance of detailed design proposals for development at Bethune Park Primary School, off Pickering Road, Kingston Upon Hull. The desk-based assessment was undertaken in order to provide an understanding of the likely impact of the proposed development on heritage assets.
- 1.1.2 The desk-based assessment comprised a search of both published and unpublished records held by the Hull City Archives and Hull Local Studies Library, which are based at Hull History Centre, the Humber Sites and Monuments Record (HSMR), and the archives and library held at OA North. A walkover survey was conducted of the land subject to the development proposals, in order to relate the landscape and surroundings to the results of the desk-based assessment. The sections of the National Planning Policy Framework (NPPF, DCLG 2012) relating to heritage assets were considered during the assessment. The desk-based research and walkover survey were undertaken in January 2012 and this report briefly sets out the results.

### 1.2 LOCATION, TOPOGRAPHY AND GEOLOGY

- 1.2.1 The proposed development site lies within an area of relatively flat land on the south-west edge of the Hull river valley, at the western side of Kingston Upon Hull (NGR TA 0505 2720; Fig 1). It is situated at a height of approximately 10m (aOD) and is 1km to the north of the River Humber. The site lies amidst residential suburbs of Hull and playing fields associated with the Primary School and the neighbouring school.
- 1.2.2 As the site lies near the confluence of the rivers Hull and the Humber, it falls within the Humber Estuary landscape character area (Countryside Commission 1998, 112-16). This is one of the largest river estuaries in England and its importance as a communication route has been responsible for attracting trade, industry, and settlement (*ibid*). It is these cultural influences that are most conspicuous within the study area in the present day, in contrast to the mud flats and reclaimed farmland that characterise other parts of the estuary fringes.
- 1.2.3 Local drift geological deposits comprise glacial till, or boulder clay, that formed within the former basin of Lake Humber during the last glacial retreat (*ibid*) and alluvial clay, silt and sand has been deposited along the fringes of the estuary (British Geological Survey 2012), including the study area. Borehole logs show that these deposits have also concealed peat horizons (*ibid*). The underlying bedrock comprises Chalk (*ibid*).

## 2. METHODOLOGY

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### 2.1 INTRODUCTION

- 2.1.1 This desk-based assessment was carried out in accordance with the relevant Institute for Archaeologists and English Heritage guidelines (IfA 2011, *Standard and Guidance for Archaeological Desk-based Assessments*; IfA 2010 *Code of Conduct*; English Heritage 2006, *Management of Research Projects in the Historic Environment* (MoRPHE)) and generally-accepted best practice.

### 2.2 DESK-BASED ASSESSMENT

- 2.2.1 The principal sources of information consulted were historical and modern maps of the study area and information held by the HSMR, as well as published and unpublished secondary sources. A study area with a radius of 250m, extending from the centre of the proposed development area, was examined in detail in order to provide an understanding of the potential impact of the proposed works on any identified surrounding heritage assets. All heritage assets identified within the study area have been included in the Gazetteer of Sites (*Section 5*) and plotted onto the corresponding Figure 2. The results were analysed using the set of criteria used to assess the national importance of an ancient monument (DCMS 2010). Sources consulted include:
- 2.2.2 ***Humber Sites and Monuments Record (HSMR)***: the HSMR held in Hull was consulted to establish the sites of archaeological interest already known within the study area. The HSMR is a database of all known sites of archaeological interest in Kingston Upon Hull and the East Riding of Yorkshire, and is maintained by Humber Archaeology Partnership on behalf of Hull City Council and the East Riding of Yorkshire Council.
- 2.2.3 ***Hull City Archives and Hull Local Studies Library***: the archives and local studies library are housed within Hull History Centre and hold both published and manuscript maps, as well as unpublished primary sources and secondary published sources relating to the area that lies within the current boundaries of Kingston Upon Hull.
- 2.2.4 ***East Riding of Yorkshire Archive and Records Service (ERYARS)***: the archive holds both published and manuscript maps, as well as unpublished primary sources and secondary published sources relating to the areas that lie within the historic boundaries of the East Riding of Yorkshire.
- 2.2.5 ***Oxford Archaeology North***: OA North has an extensive archive of secondary sources, as well as numerous unpublished client reports on work carried out both as OA North and under its former guise of Lancaster University Archaeological Unit (LUAU). These were consulted where relevant.



## **2.3 WALKOVER SURVEY**

- 2.3.1 A walkover survey was conducted of the proposed development area on 12<sup>th</sup> January 2012. The main aim of this survey was to identify the location and extent of any previously unrecorded sites of archaeological interest, as well as to gain an understanding of the state of preservation and extent of any known sites that might be affected by the proposed works. The results of the survey were compiled using photographic and written records.

## **2.4 ARCHIVE**

- 2.4.1 A full archive has been produced to a professional standard in accordance with current English Heritage guidelines (English Heritage 2006). Copies of the report will be sent to the HSMR in Hull.

### 3. BACKGROUND

#### 3.1 HISTORICAL AND ARCHAEOLOGICAL BACKGROUND

3.1.1 **Introduction:** in addition to a detailed investigation of the closely defined study area, it is also necessary to present a general archaeological and historical background of the wider locale. This will allow the wider archaeological context of the site to be considered. Although the study area currently lies within the boundaries of Kingston Upon Hull, it occupies the low-lying land that forms the western side of the Hull valley and was only brought within the city boundaries in 1929. The area, therefore, shares much of the character, in terms of early settlement and land exploitation patterns, of Holderness. Holderness is an area of lowland East Yorkshire that forms a rough triangle bounded to the north and west by the Yorkshire Wolds, to the east by the North Sea, and to the south by the Humber (Ellis 1995, 10).

Period	Date Range
Palaeolithic	c500,000 – 10,000 BC
Mesolithic	10,000 – 4000 BC
Neolithic	4000 – 2400 BC
Bronze Age	2400 – 700 BC
Iron Age	700 BC – AD 43
Romano-British	AD 43 – AD 410
Early Medieval	AD 410 – AD 1066
Late Medieval	AD 1066 – AD 1540
Post-medieval	AD 1540 – c1750
Industrial Period	cAD1750 – 1914
Modern	Post-1914

Table 1: Summary of British archaeological periods and date ranges

#### 3.2 PREHISTORIC PERIODS

3.2.1 **Palaeolithic and Mesolithic Periods:** the earliest evidence for human activity within the wider Hull area dates from the Palaeolithic period, although this is very sparse and comprises a hand axe and a series of pieces of worked flint found in the vicinity of Burstwick, to the east of Hull (Brigham *et al* 2008a, 74; Network Archaeology Ltd 2009, 13). There is more evidence relating to human activity from the Mesolithic period and bone points and harpoon tips

have been found at several locations within Holderness (Brigham *et al* 2008a, 172), whilst flint tools have been found within the Wolds, to the north-west, although the general evidence for activity in the local area at this time remains sparse (Allison *et al* 1976, 31).

- 3.2.2 The study area lies within 1km of the northern shore of the river Humber and, although the Holocene geological development of the landscape of the watercourse since the end of the glacial period at approximately 10,000 BC is complex, the river channel appears to have consolidated within a cutting by 10,000 BC (Van de Noort 2004, 18-21). The river was fringed by extensive wetlands from this date, which originated from impeded run-off due to rising sea levels and which caused flooding of the adjacent plains, including the study area (*op cit*, 23-5). Therefore, the study area would have represented a rich wetland resource for potential exploitation by hunters and gatherers during the Mesolithic period. Indeed, Mesolithic sites consisting mainly of flint scatters have been identified at numerous places immediately adjacent to the river Hull and other rivers in the Humberhead Levels, and along the southern shore of the river Humber (*op cit*, 35-6). However, relatively few such sites have been identified along the northern bank of the river (*ibid*). Although palaeoenvironmental evidence from the environs of Kingston upon Hull demonstrates the presence of a mixed forest environment datable to c 6930 BP, which could have been exploited by late Mesolithic groups, there is not, as yet, evidence for such exploitation (*ibid*).
- 3.2.3 **Neolithic Period:** the Neolithic period is often considered to mark the transition from subsistence strategies based on transient hunting, fishing and gathering to the adoption of a more settled agricultural way of life and the subsequent development of funerary architecture. However, this transition need not preclude the continued exploitation of wild resources or mobility within the landscape that typified the preceding Mesolithic period, and the rate and character of transition may have been subject to regional variations (*eg* Roskams and Whyman 2005, 54). Some of the most conspicuous evidence of settlement and funerary activity in the East Riding are found within the Wolds, where the lighter soil was conducive to woodland clearance and agriculture, and settlement remains and long barrows have been identified (*op cit*, 32). However, there is also evidence to suggest that settlement occurred on the low-lying land around the Hull valley during the Neolithic period, when the Holderness plain would have consisted of a wetland environment of mixed lakes and marshes, with islands and woodlands (Countryside Commission 1998, 107-11). There is also evidence from pollen analyses of woodland clearance and cereal production in the Holderness area, which has been dated to between 4030 and 3783 cal BC (Van de Noort 2004, 31). That may have been on a small scale, and there is otherwise limited evidence for Neolithic woodland clearance in southern Holderness until about 2300 BC onwards (Smith 1958; Beckett 1981).
- 3.2.4 The wetland nature of the riverine fringes led to the growth of peat in the Humberhead Levels during the Neolithic period (Van de Noort 2004, 24-5; Evans and Steedman 2000, 193). The presence of peat datable to the Neolithic period and, therefore, the potential for preserved organic remains associated

with prehistoric human activity, has been demonstrated in the vicinity of Kingston upon Hull, as have preserved bog oaks that might represent Neolithic woodlands (*op cit*, 193-4). However, preserved anthropogenic organic remains have not yet been identified in the area. The presence of people is, however, attested by casual finds of Neolithic flints and polished stone axeheads from the suburbs and city limits of Kingston upon Hull, ranging as far east as Holderness Road and as far west as Kirk Ella, c 4km north-west of the study area (*op cit*, 194).

- 3.2.5 Many findspots of Neolithic material coincide with Mesolithic finds and focus on riverine locations, possibly suggesting continuity of use of certain locales over extended periods (Van de Noort 2004, 42-3). The discovery of a possible early Neolithic house with hearths and pits further along the Humber estuary at Easington demonstrates a break with Mesolithic lifeways, however (Evans and Steedman 2001, 69-73; Richardson 2011).
- 3.2.6 Flint scatters from the later Neolithic and early Bronze Age tend to be located further away from the rivers. This could relate to decreasing dependence on wetland exploitation as agriculture became more commonly practised, or it could reflect woodland clearance and more extensive use of the surrounding landscape (Van de Noort 2004, 42-3).
- 3.2.7 **Bronze Age:** the clearance of woodland continued in the East Riding during the Bronze Age, with much activity continuing to focus on higher land such as the Wolds, where numerous finds dating to this period have been discovered and round barrows are found scattered widely (*op cit*, 33). The remains of round barrows have also been identified on lower ground, including within the Hull valley, and canoes and finds of pottery also demonstrate Bronze-Age activity within the wider area (*ibid*). Bronze-Age pottery has also been reported in the vicinity of a triple-dyke earthwork that might have been a droveway and a large oval enclosure immediately to the south-east of Castle Hill, to the north of the study area in Cottingham (Evans and Steedman 2000, 195).
- 3.2.8 Three plank-built boats, fastened with yew withies, have been found on the shore at North Ferriby, on the northern side of the River Humber within 6km of the proposed development site, and a fourth boat was found at Kilnsea, near the mouth of the Humber (*ibid*; Wright *et al* 2001; Van de Noort 2006). These boats were dated to the early second millennium BC and demonstrate that navigation of the river Humber occurred from at least as early as the earlier Bronze Age (*ibid*; Wright *et al* 2001). Another boat was recorded in 1885 as being found in the alluvial clay during the excavation for Alexandra Dock, along with a winged axe of late Bronze-Age date (Evans and Steedman 2000, 194). A Bronze-Age palstave was also found in the Humber (*ibid*).
- 3.2.9 The distribution of artefacts suggests that, during the late Bronze Age, the foci of occupation shifted significantly and the density of occupation in lowland areas increased, with finds of this period being abundant within Holderness (Allison *et al* 1976, 34). Indeed, Holderness has produced the largest quantity of Bronze-Age metalwork from Yorkshire (Manby *et al* 2003, 80). The distribution of different types of objects suggests that utilitarian resource

exploitation might have been focused on certain areas, such as the Humber estuary, whereas other areas, including the lower reaches of the river Hull, were places of deposition of prestigious metalwork, such as rapiers and swords (*ibid*). A tradition of the votive deposition of valuable objects in watery places, such as rivers and mosses, developed throughout the prehistoric period across Britain and Ireland (*eg* Bradley 1990; Gavin *et al* 2000, 248; Waddell 2000, 47). The deposition of such material might be understood in many ways, from the survival of non-organic remains that would have accompanied water-based burials/body disposals, to sacrifices intended to appease or honour the gods, or the disposal of wealth in order to elevate the status of the person responsible for the deposition (Bradley 1990; Parker Pearson 2000, 117). In this context, it may be of relevance that the majority of Bronze-Age finds from the Hull valley appear to have come from alluvial areas (Gavin *et al* 2000, 245). However, not all finds of Bronze-Age date should be assigned a votive function, as is suggested by the discovery of pottery sherds at Orchard Park to the north of Hull, which may have been associated with a settlement (Evans and Steedman 2000, 195).

3.2.10 **Iron Age:** there seems to have been a degree of cultural continuity between the late Bronze Age and the early Iron Age, although there were additional new influences, such as the use of iron (Allison *et al* 1976, 34). Several Iron Age settlement sites are known from the eastern part of the East Riding, including wetland settlements at Barmston and Ulrome, on the coastal lowlands to the north-east of the study area, and hillforts in the Wolds (*ibid*). Although there are significantly more recognised settlements in the uplands of the Wolds than the lowland areas of the eastern East Riding, this appears to be, at least partly, the result of a research bias towards the upland areas and, although relatively little work has been undertaken on the heavier soils of the Hull valley, evidence of Iron-Age activity within the lowland areas is becoming apparent (Mackey 2003, 117; Network Archaeology Ltd 2009, 15; OA North 2012).

3.2.11 This is particularly evident in the results of aerial photographic analyses, which have demonstrated the presence of numerous sites that are typographically similar to Iron Age enclosures, droveways, and settlements known from other parts of the country (Brigham *et al* 2008b). This includes many cropmark sites within the Hull valley, although these have not yet been closely dated (Gavin *et al* 2000, 245). A large square barrow cemetery containing up to 127 mounds is also present at the western side of the river Hull, at Scarborough (Van de Noort and Ette 2000).

3.2.12 A number of sites have emerged as the result of fieldwork in recent years and, although many known settlements within lowland areas appear to have been situated above the 10m contour, recent work in the region has led to the identification of several settlements of Iron-Age date lying below this level (OA North 2012). For example, settlements that include Iron-Age phases have been identified between Easington and Partington lying at 9m, 6.5m, 2.5-5m, and 8m (aOD). An Iron Age settlement comprising two sub-rectangular ditched enclosures was excavated at the north-eastern side of the city, at Saltshouse Road (Evans and Steedman 2000, 196). This settlement included several roundhouses and organic preservation enabled the recovery of large

quantities of animal bone. Iron-Age pottery has also been found in a pit to the north side of Saltshouse Road and briquetage suggestive of salt working has been found to at the eastern side of the city at Preston Road (*ibid*). Closer to the proposed development site, an extensive Iron Age settlement with roundhouses, enclosures and pits has been excavated at Creyke Beck Sub-station, c 7km to the north (Evans and Steedman 2001, 67-9).

- 3.2.13 Finds of Iron-Age date in the immediate vicinity of Kingston upon Hull include a La Tène iron sword with a bronze hilt found in Hymers Avenue, at the north-western side of the city; Iron-Age pottery has been found nearby (*op cit*, 195-6). Pottery of Iron-Age date has also been found to the north of Ennerdale Bridge, north-east of Bethune Park Primary School (*ibid*).

### 3.3 HISTORIC PERIODS

- 3.3.1 **Romano-British Period:** the local area did not fall directly under Roman control until AD 72, and relatively few sites of this period are known within Holderness (Network Archaeology Ltd 2009, 15), although recent work at Skeffling and Welwick, to the east of Holderness, has revealed sites with material of this date, perhaps brought from more Romanised settlements on the Lincolnshire side of the Humber (OA North 2012). On the other hand, finds from the later first century onwards are numerous, even though no major Roman roads are known in the area apart from Ermine Street, which crossed the Humber at Brough, 10 miles to the west of Hull (Margary 1957). The absence of roads might reflect the difficulty of establishing such routes through an extremely wet area (Network Archaeology Ltd 2009, 15), although elsewhere Roman engineers built roads through bogs on corduroy footings. Alternatively, as the Parisi were not troublesome and there were no forts east of the Civitas capital at Brough (Ottaway 2003, 130), major roads were unnecessary. There have been suggestions that a Roman road might have run east from the Ermine Street crossing at Brough to a point on the river Hull, within the northern portion of the city (Evans and Steedman 2000, 198-9). Such a route would be likely to pass through Kirk Ella, to the north of the study area. The siting of many known Romano-British sites adjacent to rivers might also suggest that the primary communication routes were riverine (Evans and Steedman 2000, 198-9) and the numerous boats of Bronze-Age and Iron-Age date from the Humber wetlands attest to this long-lived local tradition (Van de Noort 2004, 80-92).
- 3.3.2 It has been suggested that some wetland areas might have seen an increase in occupation during the Romano-British period, although this has not yet been demonstrated (Evans and Steedman 2000, 198-9). Several undated sites have also been identified within the region by aerial photography that might include phases of this date, for example a pattern of riverside ladder settlements within the Hull valley, particularly within the lower valley (Gavin *et al* 2000, 246).
- 3.3.3 Many of the ladder settlements were sited in low-lying areas at river bends and could have been vulnerable to inundation (Evans and Steedman 2000, 197). Although predominantly rural in character, good-quality pottery has been found at some of these sites, in addition to ceramic building materials and

glass in larger quantities than would be typical in contemporary native settlements (*ibid*). Stamped legionary tile was also found at Malmo Road, at the northern side of Hull, which might suggest that this site was not a farmstead (*ibid*). Most of the sites have revealed evidence of occupation between the early second and fourth centuries and their long-lived nature is reflected in evidence of modifications (*ibid*). Comparison with the medieval use of carrs and ings around Sutton suggests that the occupation of seasonally flooded low-lying pastures and salt marsh might have been associated with the grazing and fattening of livestock (*ibid*). The assemblages suggest a predominantly pastoral economy focused on river corridors (*ibid*). Several sites have been discovered within the northern part of the city, including sites at Bransholme, Greylees Avenue, and the large riverside ladder settlement at Malmo Road (*ibid*; Evans and Steedman 2001, 88). It has been suggested that alluvial areas lying as low as -3.8m were capable of being settled or managed during the Romano-British period (Evans and Steedman 2000, 197).

- 3.3.4 **Early Medieval Period:** few sites of this date are known from the lowlands of the Hull valley, although this might be a result of the problems of recognising pottery of this date, making identification problematic (Loveluck 1999). Settlements of this date might also be difficult to distinguish typologically from Iron Age or Romano-British sites and, therefore, some sites that have been identified from aerial photographs, but which have not yet been closely dated, could belong to this period (*ibid*). Although some pottery from Gibraltar Farm, in the Kingswood area, might suggest fifth-century activity at the site, most Romano-British sites appear to have been abandoned by the end of the fourth century (Evans 2000). Worsening climatic conditions are thought to have led to many Roman settlements along the Humber being inundated in post-Roman times (Metcalf *et al* 2000).
- 3.3.5 The study area lay within the Hundred of Hessle at the time of the Domesday survey of 1086 (Allison *et al* 1976, 129-32). Many local settlements have place-names of Old English or Norse origin, although it should be remembered that linguistic continuity within local vernacular traditions can be responsible for the assignment of archaic place-names during later periods. It is, however, likely that many attest to activity in the local area during the early medieval period and this is confirmed by their occurrence in the Domesday Survey of 1086 (*ibid*). Such settlements include Hessle, which was recorded as *Hase* in 1086, meaning hazel, and Kirk Ella, which was recorded as *Aluengi*, in 1086 and probably derives from the Old English *Aelf* and *leah*, meaning Aelf's clearing (Smith 1970, 215-7). Ferriby was also recorded in 1086, as *Ferebi*, and derives from the Old Norse *ferja*, meaning ferry (*op cit*, 211). This suggests that Ferriby was the site of an early ferry route across the river Humber, perhaps because it lay close to the main river crossing of Roman Ermine Street and other overland communication routes, as well as having access to the navigable portions of the rivers Hull and Humber.
- 3.3.6 **Medieval Period:** most of the villages in the lowlands in the vicinity of the Hull valley had been established by the time of Domesday, and they were generally spaced less than one mile apart and sited on slight elevations, probably a response to the threat of flooding. The process of draining the land

within the Hull valley began as early as the medieval period (Countryside Commission 1998, 107-11), although the wetlands provided important resources, such as marshland pasture, a source of peat, reeds, eels, and fish (Network Archaeology Ltd 2009, 17). However, some land that was particularly flood-prone, and areas containing soils that were unsuitable for agriculture were not drained (*ibid*). The area that would become the site of the Old Town of Hull had not been established at the time of the Domesday Survey, probably as a result of the saturated nature of the area (Evans and Steedman 2000, 200). However, intensive activity had begun by 1260 (*ibid*). Most meres had been drained for pasture by the end of the medieval period, much of which is likely to have been used for grazing cattle (Network Archaeology Ltd 2009, 16). Streams and dykes also provided opportunities for transport and many dykes were provided with towpaths, particularly those that had been established primarily for transport rather than drainage (*ibid*).

- 3.3.7 The earlier Hundred of Hessle, which included the township of Hessle, was incorporated into the Wapentake of Harthill during the twelfth century, as first mentioned in 1166 (Allison *et al* 1976, 129-32). The boundaries of the early parish are likely to have been co-extensive with the extents of the parish as they were surveyed during the nineteenth century (Allison 1969, 1-10). The inclusion of Hessle within Harthill lasted only until 1447, at which point it was incorporated within the County of Hull. The county had developed from the Borough of Kingston Upon Hull, which had been established in 1299 into a county that was independent of York in 1440 (Allison *et al* 1976, 129-32).
- 3.3.8 One of the major medieval landowners within the vicinity of Hull was the Charter House, which was also known as God's House at Kingston Upon Hull (Allison 1969, 341). This institution comprised a priory and a hospital, until their division in 1383, and it owned extensive lands, including land within Hessle, during the fourteenth century (*ibid*). Documents from the eighteenth century showed that the part of Hessle Common occupied by the application site was owned by the Charter House and it is possible that this land was used by the institution as early as the medieval period. The discovery of wide cultivation ridges during the site visit (Site 6) suggests that arable agriculture was being undertaken within the application site at a relatively early date. Whether this was as early as the medieval period is not clear and the suitability of this land for cultivation, in contrast to periodic grazing, will have depended upon the frequency of waterlogging and the date at which the land was drained. The high demand for cereal production before the Black Death in the mid fourteenth century may also have encouraged the use of such sites for arable. The land around Hessle, beyond the settlement centres, was certainly crossed by transport routes between Hull and outlying areas during the medieval period, and the problem of inundations in this area led to the establishment of an improved road system in the area from 1305 (*ibid*). The new roads continued to be subject to damage by flooding and were gradually raised in attempts to alleviate the issue (*ibid*). This suggests that effective drainage would have been necessary to allow regular cultivation in the study area. As well as the road leading westwards from Hull, the importance of the area in terms of communications is demonstrated by the presence of the ferry across the Humber, which docked at Hessle at least as early as 1315, providing



one of the main north to south routes between London and York (Allison 1969, 387).

- 3.3.9 ***Post-medieval and Industrial Periods:*** the drainage of land within the Hull valley continued into the post-medieval period and the process had been largely completed by the mid-eighteenth century (Countryside Commission 1998, 107-11). Flooding continued to cause damage to roads during the post-medieval period, leading to the requirement for extensive repairs to the road from Hull to Hessle in 1596 (Allison 1969, 390-1). The ongoing expense of road repairs was met by the parishes through which they passed and, close to Hull, by the Corporation of Hull (*ibid*). The turnpiking of the roads radiating from Hull was, therefore, vigorously supported by the Hull Corporation, as this would help to fund the cost of ongoing repairs, which included the road to Hessle in 1825 (*ibid*).
- 3.3.10 The study area lay within Hessle Common, which was depicted in 1791 (Hargrave 1791) as a relatively open area with some lines of trees that appeared to mark the course of drainage ditches, such as the East Drain. This was one of the major drainage channels in the area and shared the line of Pickering Road, at the eastern side of the study area. However, by at least as early as 1793, Hessle Common and the study area had been divided into numerous geometric parcels of agricultural land, with the application site lying within a large field owned by Charter House, as was depicted on an enclosure plan (HHC DDTH/44). The plot appeared to have been farmed from a house on the Hessle Road, which was shown on the tithe map of 1853 (HHC C BHT/12/3/6) and this might explain the irregular shape of the Charter House land holding, which included a narrow strip leading from Hessle Road to the main fields. By 1853, the proposed development site lay within a sub-rectangular field that had been formed when the large plot of land owned by Charter House had been subdivided. The drainage of the land was clearly a prominent concern throughout the post-medieval period and wind pumps (Site 4) were in use within the study area from at least as early as the late nineteenth and early twentieth centuries (Ordnance Survey (OS) 1893).
- 3.3.11 ***Boundary changes:*** the parliamentary borough of Hull was created in 1832, which extended considerably beyond the boundaries of the town, and a municipal borough was formed in 1835 that was co-extensive with the parliamentary borough (*ibid*). The boundaries of the municipal borough did not initially include the study area but, as suburban development associated with Hull expanded, the boundaries gradually incorporated more of the surrounding areas (*op cit*, 387-97). A large westward extension of the boundaries in 1882 incorporated the eastern side of Pickering Road and the area became a county borough in 1888. The borough was then given city status in 1897, and in 1929 the whole of the study area was incorporated within the city limits.
- 3.3.12 ***Twentieth century:*** during the late nineteenth and early twentieth centuries, the urban area associated with Hull expanded conspicuously, with an increase in industrial works, such as brick works and tin works, at the eastern and south-eastern sides of the city and an associated rise in rail provision. Pickering Park, to the eastern side of Pickering Road, was established in 1913 on land that had

been presented to the Hull Corporation by Christopher Pickering (Allison 1969, 382). Following the First World War, population growth in Hull, which had been slowing since the 1880s, had virtually stopped (*op cit*, 272). Migration occurred out of the town during 1921-9 towards surrounding villages, such as Hessle, which led to the increased spread of housing within the areas surrounding the city (*ibid*). Houses were built during this period within the study area, along the western side of Pickering Road, and the eastern side of Anlaby Park Road (OS 1928). Pickering Road School (Site 2) was built in 1938, and Kingston High School was re-sited to Pickering Road and opened in 1940 (Allison 1969, 365). Bethune Junior and Infants Schools was established during the 1960s and opened as a Junior School in 1962, incorporating infants in 1963 (*op cit*, 370). The 1960s was a time of significant increase in the residential character of the study area and the presence and necessity of the schools and their associated playing fields appears to have been the key factor that precluded development upon the current application site.

### 3.4 MAP REGRESSION ANALYSIS

- 3.4.1 **Introduction:** the following section comprises an appraisal of the relevant cartographic evidence available for the study area. This consists of antiquarian maps, estate plans and enclosure plans from the eighteenth century, and tithe plans and OS mapping from the nineteenth and twentieth centuries. As the rate of change to the landscape of the study area was relatively slow throughout the late-nineteenth and early twentieth centuries, only those editions that portray pertinent information are discussed.
- 3.4.2 **Plan of the county of Kingston Upon Hull by Hargrave 1791 (Plate 1):** this is one of the earliest maps to have depicted the study area in any detail, as it was a rural area lying beyond the urban centre of Hull. This map showed the extent of the former county and the main road networks that linked the towns of Hessle, Anlaby, North Ferriby, Kirk Ella, and Swanland with Hull. Although there were few details, such as field boundaries, shown on the map, a line of trees running approximately north/south in between Hessle and Hull appears to represent the line of the Common West Drain and a thinner line to the east of this is likely to represent the Common East Drain, which lay parallel and adjacent to the western edge of Pickering Road. The study area is shown as open common, although enclosed portions might have been present at this date but not been depicted.

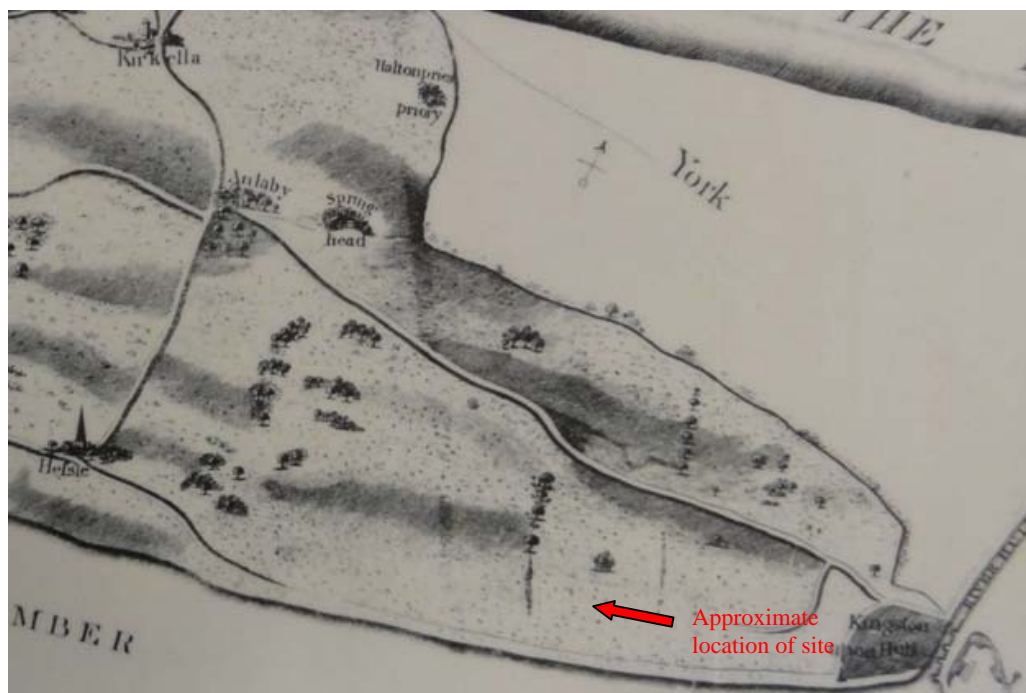


Plate 1: Extract from Hargrave's map of the County of Kingston upon Hull of 1791



Plate 2: Extract from the plan of the lordship of Hesse, Anlaby, Tranby and Wolferton of 1793

- 3.4.3 **Plan of the lordship of Hesse, Anlaby, Tranby and Wolferton of 1793 (HHC DDTH/44; Plate 2):** this plan was the first to depict Hesse Common in sufficient detail to be able to discern an accurate record of the layout of field systems. It is not clear how many, if any, of these fields had been present when the map of 1791 was surveyed, but it is likely that at least some of the

more irregular fields had existed. The study area was shown to be dominated by geometric and relatively regular fields, which abutted, and therefore post-dated, the two main drains (West Drain and East Drain) and associated roads that ran north/south across the eastern and western sides of the study area. The drains and roads were each depicted and differentiated. The proposed development site lay within an area that was annotated as being owned by Charter House.

- 3.4.4 **Hessle Common enclosure plan of 1796 (HHC C CQR/6/1; Plate 3):** the Hessle Common enclosure plan presented a very similar view of the study area to the lordship plan of 1793, with the same landowners being named within the fields in the study area on each map. One of the only additions was that the roads running north/south at the east and west of the study area were named as Common West Road and Common East Road.

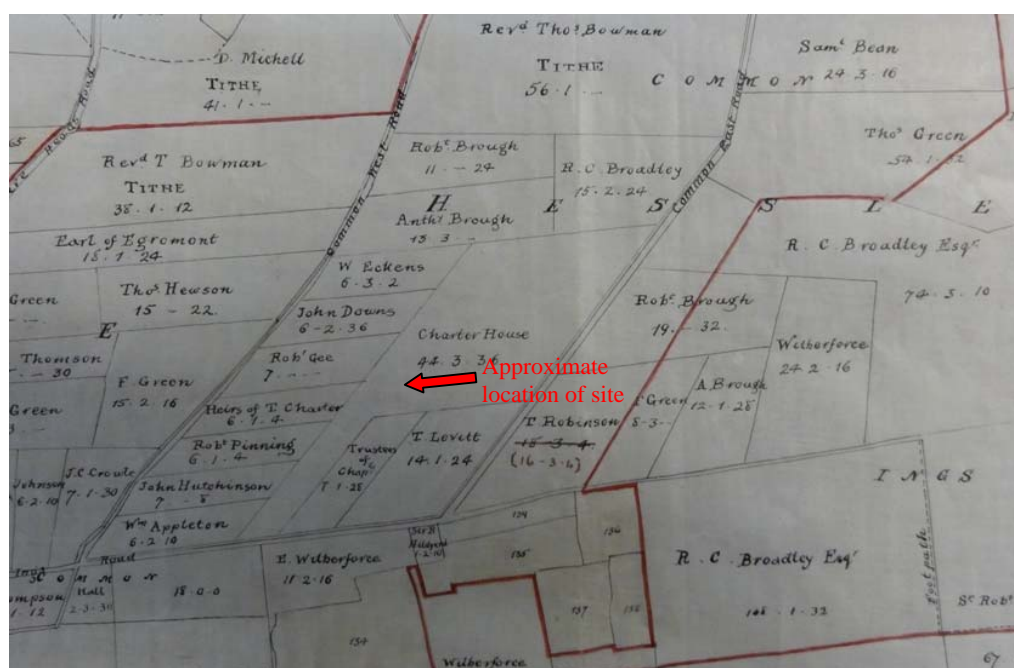


Plate 3: Extract from the Hessle Common enclosure plan of 1796

- 3.4.5 **Hessle tithe plan of 1853 (HHC C DBHT/12/3/6; Plate 4):** by the time of the production of the tithe map the ownership of the plots within the study area had, predictably, changed somewhat from that documented in 1796. However, Charter House was still indicated as the owner of the land within which the application site lies, although this had been sub-divided into six portions by this date. The proposed development site occupied part of a sub-rectangular plot that was recorded as measuring eight acres and five perches in area.

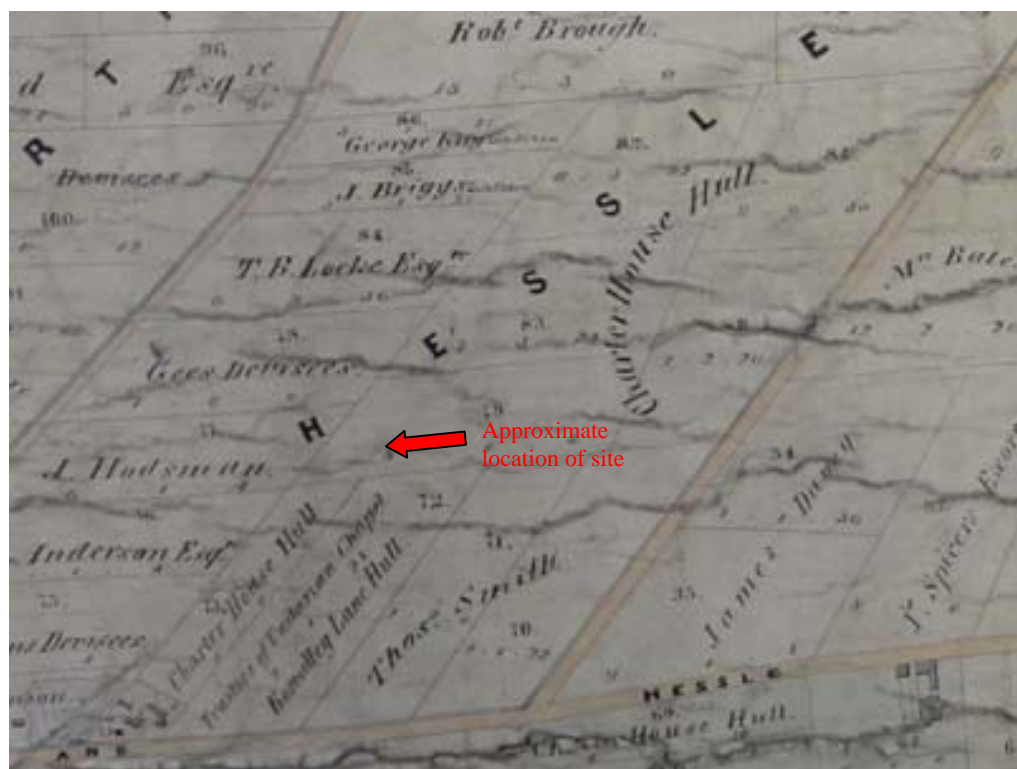


Plate 4: Extract from the Hessle tithe plan of 1853



Plate 5: Extract from the OS first edition map at 6": 1 mile, 1856

3.4.6 **OS first edition 6": 1 mile, 1856 (Plate 5):** little change was evident on this map from the tithe plan of 1853, although a greater level of detail was provided. This included buildings, of which there were very few in the vicinity of the study area. Charter House Farm was named to the south of the study



area and this is likely to have been the location of the farm from which the Charter House land holding had been farmed since at least as early as the eighteenth century.

- 3.4.7 ***OS first edition 25": 1 mile, 1893 (Plate 6):*** by the time of the production of this map, industrial activity had begun to impact upon the character of the local landscape, and two brick works and their associated clay pits were depicted at the western and north-western sides of the study area (including Site 3). Windmills were shown to the west and south-west of the study area and were indicated as being used for pumping (including Site 4). The expansion of residential areas into the hinterlands of Hull was also becoming evident and East Cottage, West Hull Villas, and Priory Villas had been constructed along Hessle Road, to the south of the study area.



Plate 6: Extract from the OS first edition map at 25": 1 mile of 1893

- 3.4.8 **OS 25": 1 mile, 1910:** the only conspicuous changes evident on this map were the addition of a brick works to the south-west of the study area.
- 3.4.9 **OS 25": 1 mile, 1928 (Plate 7):** by 1928, Pickering Park, which had been established in 1913, was depicted at the eastern side of Pickering Road. The result of population movement into the areas surrounding Hull was evident, with a dramatic increase in the number of residential properties along Hessle Road and Pickering Road, which had been re-named from Common West Road. Residential properties and associated access roads were also beginning to encroach into the agricultural fields at the southern side of the study area by this date.

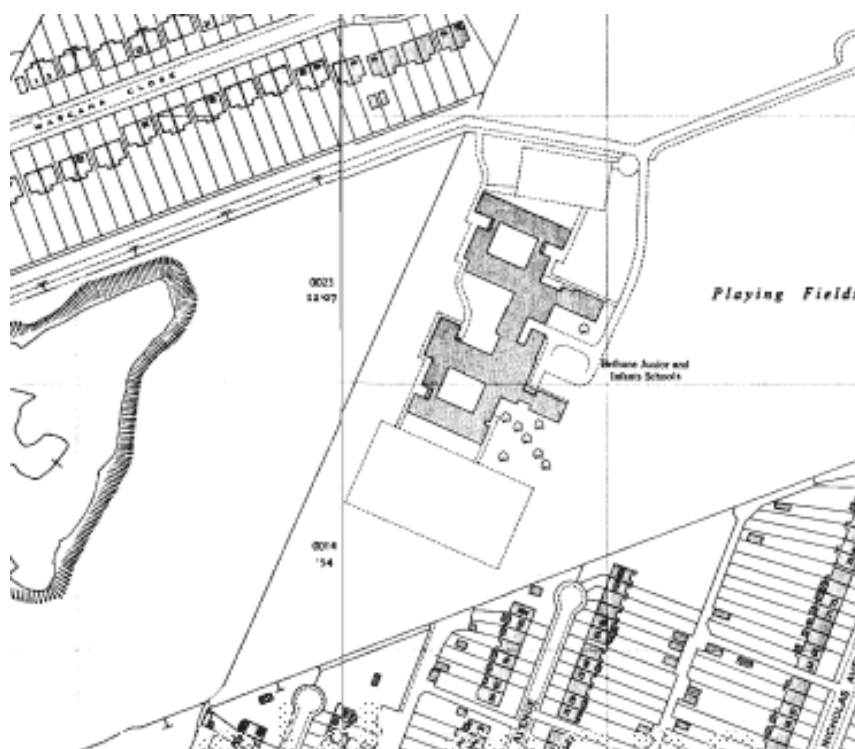


Plate 7: Extract from the OS map at 25": 1 mile of 1928

- 3.4.10 **OS 25": 1 mile, 1951:** this map showed that by the early 1950s the whole of Pickering Road had become fronted with houses, and the fields to the south of

the proposed development site had become entirely filled with new avenues of terraced housing. Pickering Road School (Site 2) had been built in 1938 and Kingston High School in 1940 and, by this time, the land occupied by the school playing fields was some of the only space that had not been filled with housing. Following the establishment of the schools, the northern boundary (Site 5) of the field within which much of the proposed development site lies, was removed.

- 3.4.11 **OS 6": 1 mile, 1969 (Plate 8):** this map depicted Bethune Junior and Infant Schools, which was built in 1962-3, and the school was shown with almost exactly the same layout of buildings, playgrounds, access routes and courtyards as the current school, with the exception of a small structural addition that has since been added to the north-western side of the complex. The plot occupied by the school is slightly wider, from north to south, than the field that was present in this area between 1853 and the early twentieth century and, therefore, the former field boundary had been overlain by the school playing field at the eastern side of the school.



*Plate 8: Extract from the OS map at 25": 1 mile of 1969*

### **3.5 AERIAL PHOTOGRAPHIC ANALYSIS AND PREVIOUS ARCHAEOLOGICAL INVESTIGATIONS**

- 3.5.1 The only previous archaeological investigation recorded within the HSMR for the study area relates to an undated aerial photographic survey that identified 30 circular rings on the Kingston High School playing fields (Site 1). Although circular features can relate to numerous site types of prehistoric date, the only interpretation suggested in the record is that they might have been fungal rings and, therefore, would not be of archaeological interest. The date



of the aerial photographs is not provided. Vertical aerial photographs dating to 2003, 2007, and 2008 have been examined and no indications of circular features were discernible.

- 3.5.2 Archaeological investigations have been carried out immediately adjacent to Bethune Park Primary School, in association with the development of the Sirius Academy. This work included the excavation of six trial trenches. Nothing of archaeological interest was discovered during these works and, for this reason and because the project is considered to be ongoing, these investigations have not yet been added to the SMR (V Brown pers comm). These investigations also included historic building recording of Kingston Road High School (MHU 16408), which was designed in an Art Deco style by David Harvey and opened in 1940; it included interesting internal fixtures of the period.

## 4. WALKOVER SURVEY

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### 4.1 INTRODUCTION

- 4.1.1 The walkover survey was undertaken on 12<sup>th</sup> January 2012 and aimed to determine the survival of any above-ground remains of heritage assets identified during the desk-based assessment and also to identify any previously unrecorded sites within the proposed development area. The whole of the proposed development area was accessible and was examined systematically. The weather was clear and dry.

### 4.2 RESULTS

- 4.2.1 The site consisted of a complex of school buildings with a car park and access road to the north and north-east, a tarmac playground and grassed area to the south, a narrow strip of grass and shrubs to the west, and a large playing field to the east (Plates 9-11). The open playing field and the grassed area to the rear of the playground were the only portions of ground that were not obscured effectively by tarmac, buildings or shrubs and were, therefore, the only areas where ground inspection might identify features of archaeological interest.



*Plate 9: View of the front of the school from the playing fields, looking south-west*



*Plate 10: View of the rear of the school, looking across the grassed area and playground towards the north-east*



*Plate 11: View of the eastern side of the school, looking across the playing fields, towards the north-west*

- 4.2.2 The playing field was short grass so it was possible to discern relatively slight topographic features. The only feature of archaeological interest was a series of corrugations that ran east-north-east/west-south-west across the field and appeared to represent ridge-and-furrow cultivation strips (Site 6; Plate 12). Ridge and furrow was also visible on current oblique aerial photographs (Plate 13). The ridges measured up to 6.5m wide and 0.2m high and, although definitive dating of such sites can not be obtained from their dimensions alone, they seem most likely to be of medieval date, though could belong to the early



post-medieval period. There were no above-ground indications of the northern boundary of the field (Site 5) that was depicted in this area until the early twentieth century.



*Plate 12: View looking across the ridge and furrow (Site 6) within the playing field, looking south-south-east*



*Plate 13: An oblique aerial view showing the corrugations of ridge and furrow in the playing fields, looking south*

## 5. GAZETTEER OF SITES

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<b>Site number</b>	<b>1</b>
<b>Site name</b>	Circular features
<b>NGR</b>	TA 0517 2738
<b>Site type</b>	Cropmark
<b>Period</b>	Undated
<b>SMR No</b>	MHU77
<b>Statutory Design</b>	-
<b>Sources</b>	HSMR
<b>Description</b>	Aerial photographs showed 30 circular features on Kingston High School playing fields. They may have been fungal rings.
<b>Assessment</b>	The extent of these features is not known and it is possible that one or more may lie within the playing field to the east of Bethune Park Primary School.

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<b>Site number</b>	<b>2</b>
<b>Site name</b>	Pickering Road School
<b>NGR</b>	TA 0530 2730
<b>Site type</b>	School
<b>Period</b>	Modern (1934)
<b>SMR No</b>	MHU16255
<b>Statutory Design</b>	-
<b>Sources</b>	HSMR
<b>Description</b>	A school located to the south of Kingston High School.
<b>Assessment</b>	The school lies beyond the land occupied by Bethune Park Primary School and is unlikely to be affected by any proposed development.

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<b>Site number</b>	<b>3</b>
<b>Site name</b>	Former brick works
<b>NGR</b>	TA 0495 2718
<b>Site type</b>	Brick works
<b>Period</b>	Industrial (1856-1893)
<b>HSMR No</b>	-
<b>Statutory Design</b>	-
<b>Sources</b>	OS 1856; OS 1893
<b>Description</b>	A brick works and associated clay pit was depicted on the OS map of 1893, and had not been shown on the previous edition of 1856.
<b>Assessment</b>	The site lies beyond the proposed development area and will not be affected.

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<b>Site number</b>	<b>4</b>
<b>Site name</b>	Pumping windmill
<b>NGR</b>	TA 0495 2719
<b>Site type</b>	Former windmill
<b>Period</b>	Industrial (1856-1893)
<b>HSMR No</b>	-
<b>Statutory Design</b>	-
<b>Sources</b>	OS 1856; OS 1893; OS 1910
<b>Description</b>	A windmill, marked as 'pumping' was depicted on the OS map of 1893, and had not been shown on the previous edition of 1856. The precise position of the windmill is unclear and a windpump depicted slightly further south on the OS map of 1910 might represent a later replacement.
<b>Assessment</b>	The site lies beyond the proposed development area and will not be affected.

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<b>Site number</b>	<b>5</b>
<b>Site name</b>	Former field boundary
<b>NGR</b>	TA 0510 2725
<b>Site type</b>	Former boundary
<b>Period</b>	Industrial (1796-1853)
<b>HSMR No</b>	-
<b>Statutory Design</b>	-
<b>Sources</b>	Hessle enclosure plan of 1796; Hessle tithe plan of 1853
<b>Description</b>	A field boundary running east-north-east/west-south-west and sub-dividing the land currently occupied by Bethune Park Primary School was first depicted on the Hessle tithe plan of 1853 and had not been shown on the enclosure plan of 1796.
<b>Assessment</b>	The site lies within the boundary of the Bethune Park Primary School land and development on the playing field might impact upon the site.

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<b>Site number</b>	<b>6</b>
<b>Site name</b>	Ridge and furrow
<b>NGR</b>	TA 0510 2720
<b>Site type</b>	Cultivation ridges
<b>Period</b>	?Medieval to early post-medieval
<b>SMR No</b>	-
<b>Statutory Design</b>	-
<b>Sources</b>	OA North site visit
<b>Description</b>	A series of corrugations ran east-north-east/west-south-west across the playing field, following the orientation of the former field boundary (Site 5), and appeared to represent ridge-and-furrow cultivation strips (Site 6). The ridges measured up to 6.5m wide and 0.2m high and, although definitive dating of such sites can not be obtained from their dimensions alone, this might suggest that they are of medieval, or early post-medieval date.
<b>Assessment</b>	The ridge and furrow lies within the boundary of the Bethune Park Primary School land and any development on the playing field would impact upon the site.

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<b>Site number</b>	<b>7</b>
<b>Site name</b>	Bethune Park Primary School
<b>NGR</b>	TA 0506 2722
<b>Site type</b>	School
<b>Period</b>	Modern
<b>SMR No</b>	-
<b>Statutory Design</b>	-
<b>Sources</b>	OA North site visit
<b>Description</b>	Bethune Park Primary School was built in 1962-3 (Allison 1969, 370), in a typical 1960s style. It is largely single storey and brick-built, with some elevations dominated by large timber-framed windows and wooden panels. A complex of classrooms and corridors are arranged around a series of quadrangles. The school is, therefore, of a different epoch and architectural style to the nearby Kingston Road High School (Sirius Academy), and does not incorporate Art Deco architecture. Internal fittings contemporary with the construction of the school are not thought to be of archaeological significance.
<b>Assessment</b>	Works within the proposed development area could impact upon the site.

## 6. ASSESSMENT OF THE SIGNIFICANCE OF THE REMAINS

### 6.1 INTRODUCTION

6.1.1 Seven sites, or heritage assets, have been identified within the study area. Sites 1-and 2 were identified from the HSMR, Sites 3-5 and 7 were identified through map regression, and Site 6, was identified during the walkover survey. Three of the heritage assets are located within the boundaries of the land occupied by Bethune Park Primary School and, therefore, lie potentially within areas that might be affected by development (Sites 5 , 6 and 7). There are no listed buildings or scheduled monuments within the study area that might be affected in terms of visual impacts upon their settings.

Period	No of Sites	Site
Neolithic/ Bronze Age	0	-
Iron Age	0	-
Romano-British	0	-
Early Medieval	0	-
Late Medieval	?1	Ridge and furrow of possible medieval date (Site 06)
Post-medieval	?1	Ridge and furrow of possible medieval date (Site 06)
Industrial	3	Brick works (Site 3), windmill (Site 4), field boundary (Site 5)
Modern	1	Pickering Road School (Site 2), Bethune Park Primary School (Site 7)
Undated	1	Circular features (Site 1)

Table 2: Number of sites by period

6.1.2 In National Planning Policy Framework (NPPF), the Department of Communities and Local Government (DCLG) states that for proposed developments meriting assessment the ‘*significance of any heritage assets affected, including any contribution made by their setting*’ should be understood in order to assess the potential impact (Section 12.128, NPPF, DCLG 2012). Therefore, the following section will determine the nature and level of the significance of this archaeological resource, as detailed in Sections 3 to 5. This is an iterative process, beginning with the guideline criteria outlined in Table 2, below. In general terms, the recording of a heritage asset, eg SMR, SM or listed building, and any subsequent grading thereafter, by its nature, determines its importance. However, this is further quantified by factors such as the existence of surviving remains or otherwise, its rarity, or whether it forms part of a group. There are a number of different methodologies used to assess the archaeological significance of heritage assets, but that employed here (Section 6.2) is the ‘Secretary of State’s criteria for scheduling ancient monuments’ (Annex 1; DCMS 2010).

Importance	Examples of Heritage Asset
National	Scheduled Monuments (SMs), Grade I, II* and II Listed Buildings
Regional/County	Conservation Areas, Registered Parks and Gardens (Designated Heritage Assets) Sites and Monuments Record/Historic Environment Record
Local/Borough	Assets with a local or borough value or interest for cultural appreciation Assets that are so badly damaged that too little remains to justify inclusion into a higher grade
Low Local	Assets with a low local value or interest for cultural appreciation Assets that are so badly damaged that too little remains to justify inclusion into a higher grade
Negligible	Assets or features with no significant value or interest
Uncertain	As-yet-undetected sub-surface remains of prehistoric or Romano-British date

*Table 3: Guideline criteria used to determine Importance of Heritage Assets*

## 6.2 QUANTIFICATION OF IMPORTANCE

- 6.2.1 The gazetteer sites previously listed (*Section 5*, above) were each considered using the criteria for scheduling ancient monuments, with the results below. This information will contribute to the overall assessment of the importance of each heritage asset.
- 6.2.2 **Period:** the ridge and furrow (Site 6) has not been closely dated, but if it was demonstrated to be of medieval origin then this would add to our understanding of the chronological development of arable agriculture within an area that was sensitive to flooding and required significant drainage. It may date to the late thirteenth or early fourteenth-century when arable agriculture was at its medieval maximum, only to revert to pasture after the Black Death. The industrial date of the brick works (Site 3) and associated pumping mill (Site 4) is also significant, as industrial activity during this period contributed to the dramatic growth of Hull as an urban and commercial centre and the subsequent spread of residential suburbs into the surrounding townships, such as Hessle, which now largely characterise these areas. If the circular features (Site 1) were to represent prehistoric features then they would be very significant, but their existence is uncertain.
- 6.2.3 **Rarity:** the only site that might be considered relatively rare, but only in a very localised context, would be the ridge and furrow (Site 6) if this was, indeed, of medieval date.
- 6.2.4 **Documentation:** this report includes a preliminary search of documentation from the most accessible resources. As the majority of the gazetteer sites date to the industrial and modern periods, it is highly likely that there are further associated documents, specifically in relation to the brick works (Site 3) and the associated windmill (Site 4), as well as Pickering Road School and Bethune Park Primary School (Sites 2 and 7).



- 6.2.5 **Group Value:** the windmill (Site 4) was used for pumping water and land drainage, and represents a site type that was extremely significant in this area. As a group, these structures provide insights into the character and development of drainage and pumping engines in the East Riding of Yorkshire.
- 6.2.6 **Survival/Condition:** the only sites represented by standing structures are Pickering Road School and Bethune Park Primary School (Site 2 and 7), and the ridge and furrow (Site 6) is relatively well-preserved. The degree of survival of any buried remains relating to the other sites is unknown.
- 6.2.7 **Fragility/Vulnerability:** the ridge and furrow (Site 6), and any remains of the field boundary (Site 5) will be vulnerable to any intrusive ground disturbance, as would any buried and as-yet-unknown archaeological remains (for example Site 1). Bethune Park Primary School would be vulnerable to changes in the use of the buildings.
- 6.2.8 **Diversity:** none of the sites exhibits a diverse range of characteristics.
- 6.2.9 **Potential:** the potential exists for sub-surface remains associated with the circular features (Site 1), brick works (Site 3), windmill (Site 4), field boundary (Site 5), as well as the profile of the ridge and furrow (Site 6), and dating evidence deriving from pottery deposited during manuring practices associated with cultivation. There is also potential for the survival of prehistoric or Romano-British remains, although there is no evidence that these are present.

### 6.3 STATEMENT OF IMPORTANCE

- 6.3.1 Using the guideline criteria outlined in Table 3, together with further quantification (Section 6.2), and informed professional judgement, each of the sites listed in the gazetteer has been assessed for importance as a heritage asset of archaeological interest (Table 4). The circular features (Site 1) are of unknown date and site type and are most likely to be natural features with no archaeological importance. Were these features to represent a cluster of prehistoric sites, then they would be of at least regional/county importance. However, in the absence of more reliable evidence, the importance of this site must be assessed as unknown. Pickering Road School and Bethune Park Primary School (Sites 2 and 7) are of such a modern date that they are considered to be of negligible importance. The brick works (Site 3) and windmill (Site 4) are considered to be of low local importance, due to the role that such site-types played in the development of the current character of the area. The field boundary (Site 5) is considered to be of negligible importance, due to its nineteenth-century date and diminished or destroyed state. The ridge and furrow (Site 6) is of local/borough importance, but is only of significance due to its possible medieval date.

Site No	Site name	Importance
1	Circular features	Unknown
2	Pickering Road School	Negligible
3	Former brick works	Low local
4	Former windmill	Low local
5	Former field boundary	Negligible
6	Ridge and furrow	Local/borough
7	Bethune Park Primary School	Negligible

*Table 4: Importance of each gazetteer site*

## 7. IMPACT ASSESSMENT

### 7.1 IMPACT

7.1.1 Heritage assets are an ‘*irreplaceable resource*’ (DCLG 2012). Therefore, it has been the intention of this study to identify the archaeological significance and potential of the study area, and assess the impact of proposed development, thus allowing the policy stated in NPPF (DCLG 2012) to be enacted upon. Assessment of impact has been achieved by the following method:

- assessing any potential impact and the significance of the effects arising from the proposals;
- reviewing the evidence for past impacts that may have affected the archaeological sites;
- outlining suitable mitigation measures, where possible at this stage, to avoid, reduce or remedy adverse archaeological impacts, or suggestions for further investigation where necessary.

7.1.2 The impact is assessed in terms of the importance, or sensitivity, of the site to the magnitude of change or potential scale of impact during the proposed scheme. The magnitude, or scale, of an impact is often difficult to define, but will be termed substantial, moderate, slight, or negligible, as shown in Table 5, below.

Scale of Impact	Description
Substantial	Significant change in environmental factors; Complete destruction of the site or feature; Change to the heritage asset resulting in a fundamental change in ability to understand and appreciate the resource and its cultural heritage or archaeological value/historical context and setting.
Moderate	Significant change in environmental factors; Change to the heritage asset resulting in an appreciable change in ability to understand and appreciate the resource and its cultural heritage or archaeological value/historical context and setting.
Slight	Change to the heritage asset resulting in a small change in our ability to understand and appreciate the resource and its cultural heritage or archaeological value/historical context and setting.
Negligible	Negligible change or no material changes to the heritage asset. No real change in our ability to understand and appreciate the resource and its cultural heritage or archaeological value/historical context and setting.

*Table 5: Criteria used to determine Scale of Impact*

7.1.3 The scale of impact, when weighted against the importance of the heritage asset, produces the impact significance. This may be calculated by using the matrix shown in Table 6, below.

Resource Value (Importance)	Scale of Impact Upon Heritage Asset			
	Substantial	Moderate	Slight	Negligible
<b>National</b>	Major	Major	Intermediate/ Minor	Neutral
<b>Regional/County</b>	Major	Major/ Intermediate	Minor	Neutral
<b>Local/Borough</b>	Intermediate	Intermediate	Minor	Neutral
<b>Local (low)</b>	Intermediate / Minor	Minor	Minor/ Neutral	Neutral
<b>Negligible</b>	Neutral	Neutral	Neutral	Neutral
<b>Uncertain</b>	Unknown	Unknown	Unknown	Unknown

Table 6: Impact Significance Matrix

7.1.4 **Previous disturbance:** the extent of any previous disturbance to buried archaeological horizons is an important factor in assessing the potential impact of the development scheme. The only portions of the Bethune Park Primary School land holding that are not occupied by buildings are the tarmac car park and playground, to the north and south of the school, respectively, the roads, pavements, and lawns surrounding the school, the grassed area to the south of the playground, and the playing field to the east. The establishment of areas of tarmac hard-standing, pavements, and lawns, need not have required deep intrusive works and the stripping of topsoil, or superficial levelling may have been the only preparatory works necessary. This would leave the potential for undisturbed soil horizons beneath those visible surfaces. The building of the school represents the first construction on this site since at least the late eighteenth century, which means that, with the exception of agricultural activity, no other disturbance is known.

7.1.5 The survival of visible ridge and furrow (Site 6) on the playing field demonstrates that there has been little disturbance in that area during the nineteenth and twentieth centuries, and probably throughout the post-medieval period, although the field boundary (Site 5) was removed in the early twentieth century. If any archaeological sites pre-dating the ridge and furrow were present in this area then they may have been disturbed by this agricultural activity, although this disturbance would have been intermittent and the most severe impacts would have been at the base of each widely spaced furrow.

## 7.2 SIGNIFICANCE OF IMPACT

7.2.1 Following on from the above considerations, the significance of effects has been determined based on an assumption that there will be earth-moving and other modification/additional works associated with the development, and that the present condition of the heritage assets is known or assumed. The results are summarised in Table 7, below, in the absence of mitigation. *The following will require review once detailed design proposals and depths of intrusion are known.*

Site No.	Site name	Nature of Impact	Scale of Impact	Impact Significance
1	Circular features	The nature and extent of this site is not known and it is, therefore, not possible to ascertain potential impacts	Unknown	Unknown
2	Pickering Road School	None	Neutral	Neutral
3	Former brick works	None	Neutral	Neutral
4	Former windmill	None	Neutral	Neutral
5	Former field boundary	Possible disturbance of surviving below ground remains	Substantial	Neutral
6	Ridge and furrow	Possible disturbance of above and below ground remains	Substantial	Intermediate
7	Bethune Park Primary School	Possibility of change of use of demolition	Substantial	Neutral

*Table 7: Assessment of the impact significance on each site during development*

- 7.2.2 Table 7 indicates that the ridge and furrow (Site 6) and Bethune Park Primary School (Site 7) are the only sites that are likely to be significantly affected by the proposed development and that the potential impact upon the possible circular features (Site 1), and any as-yet-undetected remains, is not known.

## 8. RECOMMENDATIONS

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### 8.1 INTRODUCTION

- 8.1.1 A desk-based assessment is usually the first stage of an iterative process of investigating the archaeological resource within a proposed development area. Having identified the potential for archaeological remains, the importance of these remains, and the significance of the impact by the development, further investigation is often required to determine the exact nature, survival, extent, and date of the remains so that effective mitigation strategies can be proposed.
- 8.1.2 In determining proposals for mitigation, it is necessary to consider only those heritage assets identified in the desk-based assessment that are likely to be affected by the proposed development. Current planning policy draws a distinction between designated heritage assets and other remains considered to be of lesser significance; *'great weight should be given to the asset's conservation. The more important the asset, the greater the weight should be...substantial harm to or loss of a grade II listed building, park or garden should be exceptional. Substantial harm to or loss of designated heritage assets of the highest significance, including scheduled monuments, protected wreck sites, battlefields, grade I and II\* listed buildings and grade I and II\* registered parks and gardens and World Heritage Sites, should be wholly exceptional'* (Section 12.132, NPPF, DCLG 2012). Therefore preservation *in situ* is the preferred course in relation to such sites unless exception circumstances exist.
- 8.1.3 It is normally accepted that non-designated sites will be preserved by record, in accordance with their significance and the magnitude of the harm to or loss of the site as a result of the proposals, to *'avoid or minimise conflict between the heritage asset's conservation and any aspect of the proposals'* (Section 12.129, NPPF, DCLG 2012). Non-designated heritage assets of archaeological interest will also be subject to the policies reserved for designated heritage assets if they are of equivalent significance to scheduled monuments (Section 12.132, NPPF, DCLG 2012).

### 8.2 PROPOSED MITIGATION

- 8.2.1 **Introduction:** detailed design proposals have not yet been issued and the following proposed mitigation relates only to development that might be undertaken within the boundary of the Bethune Park Primary School landholding. Any proposed development beyond this boundary will require additional assessment.
- 8.2.2 **Mitigation:** the ridge and furrow (Site 6) is conspicuously wide and of possible medieval date. As it will be extremely vulnerable to ground works, including the movement of vehicles or machines across the site, it should be subject to topographic survey prior to the beginning of any works. The only way to date such a site closely is through the identification of related and datable artefacts. As arable fields were often fertilised with domestic waste it

is possible that pottery of the relevant date might have been deposited on the site. Therefore, intrusive ground works in this area should be undertaken under a permanent archaeological presence (i.e. a watching brief) in order to collect finds and, if practicable, to record a profile or cross-section of a representative sample of the ridge and furrow.

- 8.2.3 The circular features (Site 1) are most likely to be natural, but given the presence in the area of prehistoric and Romano-British remains, particularly settlements of the Iron Age and Roman periods, a geophysical survey of the playing field and the grassed area to the rear of the playground should be undertaken to assess whether there are remains that can be detected by these means. As geophysical survey is not always successful, the watching brief already proposed for the ridge and furrow (Site 6) should incorporate an examination, where possible, of sub-soil and geological horizons for any evidence of cut features that might be of prehistoric or Romano-British date. The collection of finds from this area will also allow for the identification of artefacts of prehistoric date.
- 8.2.4 Bethune Park Primary School is likely to be affected by the development, but is not considered of sufficient architectural value to merit recording.

Site no	Description	Importance	Impact Significance	Mitigation
01	Circular features	Unknown	Unknown	Geophysical survey, Watching brief
06	Ridge and furrow	Local/borough	Intermediate	Topographic survey; Watching brief

*Table 8: Summary of site-specific proposals for archaeological mitigation*

## 9. CONCLUSIONS

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### 9.1 DISCUSSION

- 9.1.1 Until the early twentieth century the character of the local area was dominated by agriculture, initially as a large area of common that was gradually subject to drainage. The drainage is likely to have been instigated in the medieval period and the land will have become increasingly viable for pastoral, and even arable, agriculture from this date onwards, and was eventually enclosed and parcelled into smaller plots by the late eighteenth century. From at least as early as the medieval period, the local area was influenced by its proximity to transport links, both between Hull and the areas to the west of the town, and the north/south communication routes between London, Beverly, and York that were enabled by the Humber ferries. From the late nineteenth centuries, the proximity to Hull began to dramatically alter the local landscape character, as it became encompassed within the suburban expansion of the city.
- 9.1.2 Seven sites, or heritage assets, were identified within the study area as a result of the desk-based assessment and walkover survey, which relate to differing phases in the historical development of the local landscape. These include agriculture during the medieval, or early post-medieval period, represented by ridge and furrow (Site 6), enclosure of the common into fields (field boundary, Site 5), the industrialisation of the Hull fringes (brick works, Site 3), land drainage (pumping windmill, Site 4), and the provision of amenities for the newly established residential districts (Pickering Road School, Site 2, and Bethune Park Primary School, Site 7). Although all of the sites relate to the development of the local landscape, due to their ubiquitous occurrence, their poor state of preservation, or their relatively modern dates, most of these were not deemed to be of individual significance. The only sites assessed as possessing any importance as heritage assets were the brick works (Site 3) and windmill (Site 4), which are of *low local importance*, and the ridge and furrow (Site 6), which is of *local/borough importance* due to its possible medieval date. Additionally, it is recognised that there is potential for the survival of earlier remains, buried beneath the medieval fields.
- 9.1.3 Only three of the identified sites lie within the boundary of the school land holding; a post-medieval field boundary (Site 5), ridge and furrow of medieval or early post-medieval date (Site 6), and Bethune Park Primary School itself (Site 7). The only other recorded site that might be affected by any proposed works is a group of circular features (Site 1) listed in the HSMR and identified through aerial photography. These are of uncertain origin and are possibly natural.
- 9.1.4 In order to reduce the impact of any proposed development, mitigation has been proposed in the form of topographic and geophysical surveys, and a watching brief, especially within the area where ridge and furrow (Site 6) has been identified. This will allow any heritage assets to be preserved by record and will also present an opportunity to collect artefactual dating evidence. Examination of sub-surface horizons for any artefacts or features that might be



associated with the circular features (Site 1), or other early remains which are of uncertain extent and character, will also be enabled by these means.

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C DBHT/12/3/6: tithe plan of Hessle showing the ownership of land of 1853

C CQR/6/1: plan of the Hessle Common enclosure of 1796

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## 11. ILLUSTRATIONS

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### 11.1 FIGURES

Figure 1: Location Map

Figure 2: Plan showing the locations of the gazetteer sites

### 11.2 PLATES

Plate 1: Extract from Hargrave's map of the County of Kingston Upon Hull of 1791

Plate 2: Extract from the plan of the lordship of Hessle, Anlaby, Tranby and Wolferton of 1793

Plate 3: Extract from the Hessle Common enclosure plan of 1796

Plate 4: Extract from the Hessle tithe plan of 1853

Plate 5: Extract from the OS first edition map at 6": 1 mile, 1856

Plate 6: Extract from the OS first edition map at 25": 1 mile of 1893

Plate 7: Extract from the OS map at 25": 1 mile of 1928

Plate 8: Extract from the OS map at 25": 1 mile of 1969

Plate 9: View of the front of the school from the playing fields, looking south-west

Plate 10: View of the rear of the school, looking across the grassed area and playground towards the north-east

Plate 11: View of the eastern side of the school, looking across the playing fields, towards the north-west

Plate 12: View looking across the ridge and furrow (Site 6) within the playing field, looking south-south-east

Plate 13: An oblique aerial view showing the corrugations of ridge and furrow in the playing fields, looking south

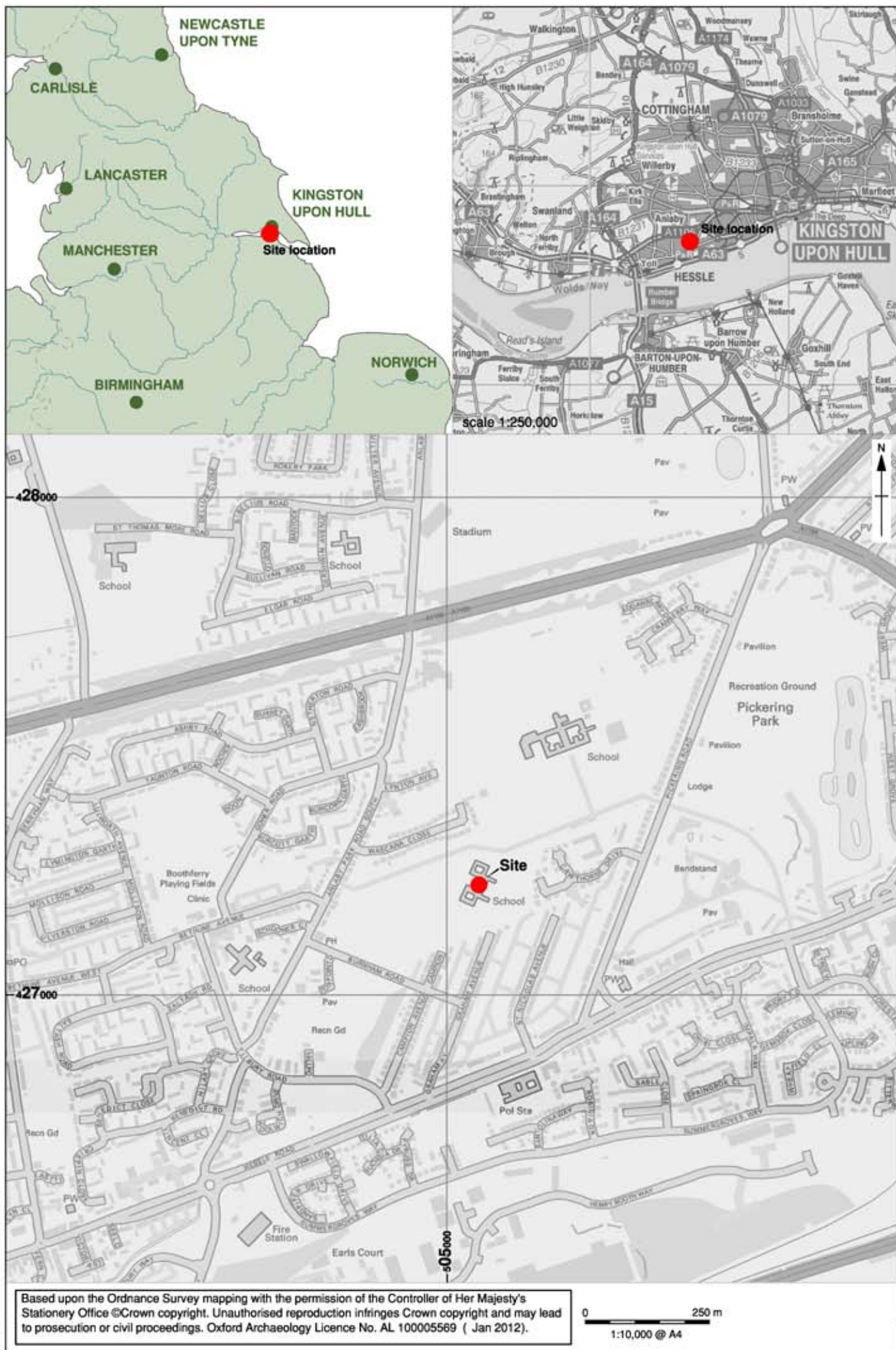


Figure 1: Site location



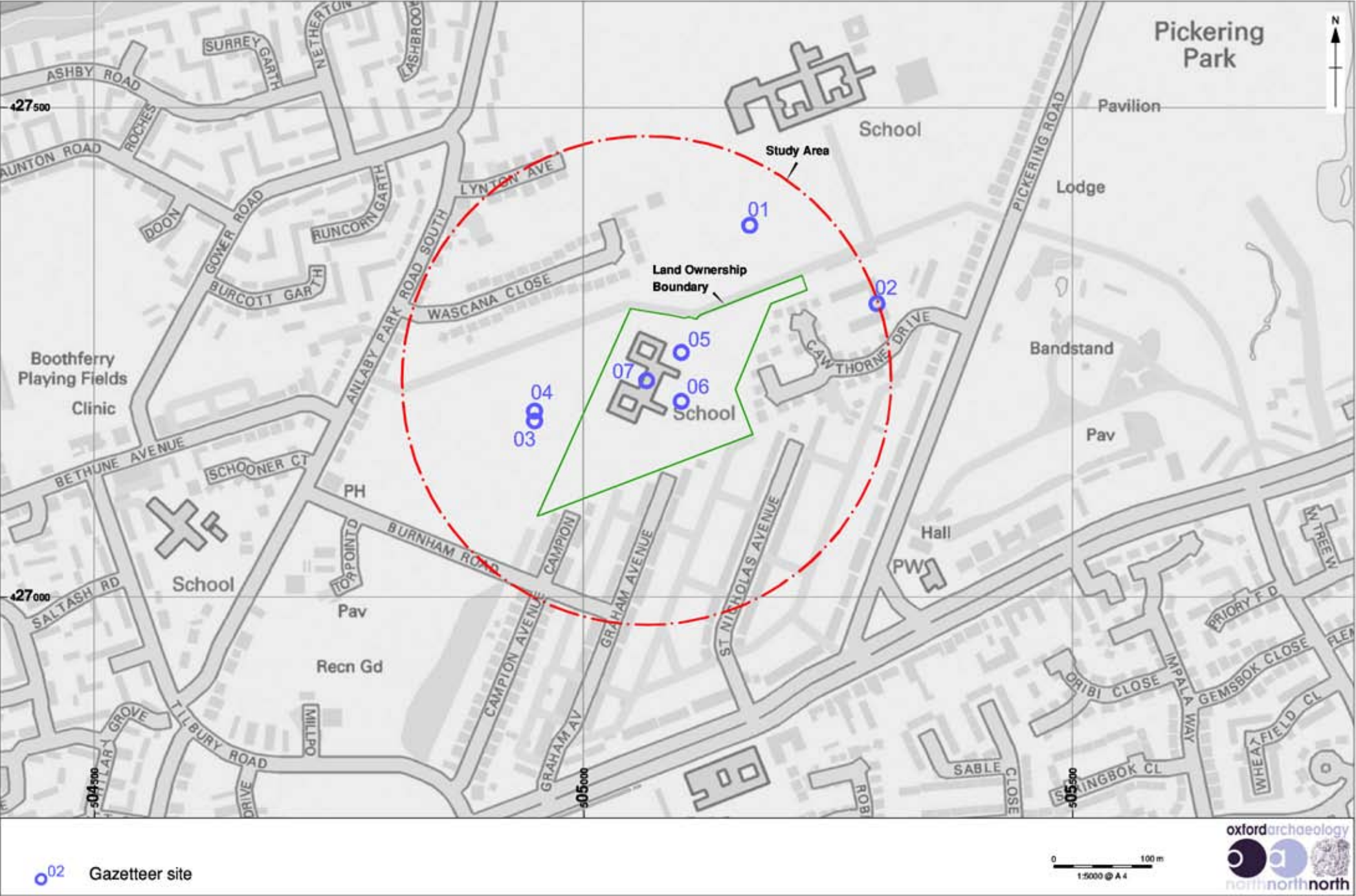


Figure 2: Plan showing the locations of the gazetteer sites