



BARROW WATERFRONT, BARROW-IN- FURNESS, CUMBRIA

Archaeological Watching Brief Report



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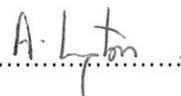
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SUMMARY

In 2006, proposals were submitted for the redevelopment of former allotment gardens on the southern part of Barrow Island, Barrow-in-Furness, Cumbria (SD 2000 6795; planning reference 6/06/9027). The area was considered to have archaeological potential and, accordingly, Cumbria County Council Historic Environment Service (CCCHES), the body responsible for advising local planning authorities on cultural heritage matters, requested that the works should be accompanied by a scheme of archaeological recording. Carillion, on behalf of Capita Symonds and Cumbria County Council, commissioned Oxford Archaeological North (OA North) to undertake the required archaeological watching brief, which was completed in two phases in January and August 2009.

During the groundworks the below-ground remains of two separate building ranges were identified and recorded, one of which was orientated north/south, whilst the other was orientated east/west. Both date to the latter part of the nineteenth century and from part of terraced dwellings that are first plotted on the 1883 Dockyard plan of this part of Barrow Waterfront. They are described as the 'Foremen's Cottages' on the 1891 Ordnance Survey (OS) map.

At the eastern edge of the allotment gardens evidence for a sand pit was discovered in a position plotted on the 1891 OS map. The sand deposit was found to underlie the whole of the site and, whilst it could have originated from the dredging of the channels and dock basins, it was very clean, and more likely to have been the wind-blown sand of a former dune system.

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The watching brief was undertaken by Andy Bates, Jeremy Bradley, Nathaniel Jepson and Pascal Eloy, each of whom contributed to the report. The finds were examined by Chris Howard-Davis and the drawings were produced by Anne Stewardson. The project was managed by Stephen Rowland, who also edited the report.

1 INTRODUCTION

1.1 CIRCUMSTANCES OF THE PROJECT

- 1.1.1 As part of the Barrow Ports Regeneration Project, Carillion, on behalf of Capita Symonds and Cumbria County Council, proposed to undertake a programme of remediation, infrastructure works and reconstruction of the allotment gardens towards the south of Barrow Island, Barrow-in-Furness, Cumbria (SD 2000 6795; planning reference 6/06/9027). Previous archaeological works undertaken by Oxford Archaeology North in association with the wider programme of development, including a desk-based assessment (DBA; OA North 2003) and a trial-trench evaluation (OA North 2005) identified that the present area of proposed ground works had some archaeological potential. Consequently, in accordance with *Planning Policy Guidance note 16 (Archaeology and Planning)* (PPG16; Department of the Environment 1991) and the *Cumbria and Lake District Joint Structure 2001-16* (CCC and LDNPA 2001), Cumbria County Council Historic Environment Service (CCCHES) issued a brief and plan requesting that an archaeological watching brief be maintained during any ground-disturbing activities associated with the development (*Appendix 1*). Following the production of a project design (*Appendix 2*) to meet the requirements of the CCCHES brief, OA North was commissioned by Carillion, on behalf of Capita Symonds and Cumbria County Council, to undertake the archaeological watching brief. This took place in two phases in January and August 2009.

1.2 SITE LOCATION, TOPOGRAPHY AND GEOLOGY

- 1.2.1 Barrow-in-Furness lies at the south-western tip of the Furness Peninsula in South Cumbria, although it is historically in that part of Lancashire known as ‘across the sands’, or North Lonsdale. It is bounded by Morecambe Bay to the south and Duddon Sands to the north, with the Furness Fells to the east and Irish Sea to the west (Fig 1). The development site is located to the south of the centre of Barrow-in-Furness, on Barrow Island and north-west of the junction of Michaelson and Bridge Roads. The site is bound to the north by the Devonshire Dock, to the south by Bridge Road, to the east by the Grade II listed Heavy Engineering Shop, and to the west by Edwardian terraces.
- 1.2.2 The topography is essentially artificial, due to the massive extent of construction and development within the study area. It is typically low-lying, little more than 10m above sea level. The more general area is a mix of stretches of coastline and undulating fields rising up to fells to the north-east (Countryside Commission 1998, 25).
- 1.2.3 The solid geology is made up almost entirely of Triassic red sandstone, with areas of red, grey and green mudstones and siltstones to the south-west (British Geological Survey 1982). As the study area is generally urban, the nature of the overlying drift geology is not clear. It is likely to consist of glacially derived deposits, overlain by typical brown earths as in neighbouring areas (Ordnance Survey 1983).

1.3 HISTORICAL AND ARCHAEOLOGICAL BACKGROUND

- 1.3.1 **Prehistory:** evidence for post-glacial activity is not common in this part of North West England. Nevertheless, recent work has established that groups of hunter-gatherers were active in the region, some of the most compelling evidence having come from the Furness Peninsula itself (Young 2002). Cave sites excavated near Ulverston and Grange-over-Sands have revealed remains dating to around 10,000 years ago (*op cit*, 20), and it is possible that the remains of deer, discovered in layers of peat at great depth during the construction of the Barrow Docks, could also date to this period (Kendall 1900). There is considerably more evidence of sites in the vicinity of Barrow dating to the Mesolithic period, many artefacts having been discovered on Walney Island, just off the south-west coast. These consist almost entirely of surface finds (Cherry and Cherry 2002). Needless to say, by the beginning of the Neolithic, the area around Barrow was well visited, and recent excavations suggest a degree of continuity from the Mesolithic (Jones 2001; OA North 2002).
- 1.3.2 During the later Neolithic and Bronze Age, more extensive settlements began to be established across the Furness Peninsula, and numerous stray finds have been discovered, including stone and bronze axes, along with bronze swords, spearheads and other weapons (Barnes 1978, 9). Large enclosures, such as those at Skelmore Heads and Stainton, may have their origins at this time (Powell *et al* 1963; Barnes 1978), although they appear to have remained in use until the coming of the Romans. Numerous burial mounds, many of which were explored during the eighteenth and nineteenth centuries (West 1774), also date to this period, as well as the stone circle at Birkrigg (Gelderd and Dobson 1912). During the Iron Age further settlements were constructed, such as that at Stone Walls near Urswick, where there is evidence that open-cast mining was carried out (Bowden 2000); there may even have been some form of habitation at Back (or Black) Castle, now the site of Barrow public park (Barnes 1978, 9).
- 1.3.3 **Roman:** there are no confirmed structural remains dating to the Roman period in Barrow, and it is not clear to what extent there was a Roman presence within the area. Shotter (1995) has argued that the relatively large number of Roman coins found in South Cumbria, particularly in the Furness Peninsula, suggests a large degree of interaction between the Romans and the local population and the possibility that a fort may yet be discovered.
- 1.3.4 **Early Medieval:** like many parts of North West England, evidence for activity during the early medieval period is sparse, and is largely confined to two sources: place-names and the remains of a cross fragment. The name Barrow-in-Furness is a relatively modern one, the village originally being called Barrowhead. Barrow appears to have referred to Old Barrow Island and is thought to consist of a British word 'barr,' meaning top or summit, with the Norse 'ai,' meaning island, added to the end and making 'barrai' (Ekwall 1922); it is still pronounced 'Barrah' by locals to this day. Furness, too, is possibly named after Fouldney Island (sometimes mistakenly called Piel Island) 'fu,' or 'fud,' being Old Norse for small island, and 'ness' meaning headland or peninsula (*ibid*). Finds from the area include the pommel, grip, guard and

400mm of the blade of a Viking sword which was recovered in 1909 while digging a grave in the churchyard at Rampside, near Roa Island (Parsons *pers comm* 2002). At the time of the Norman Conquest, Furness formed part of the Manor of Hougoun, thought to be based at High Haume near Dalton, under the control of Earl Tostig (OA North 2003).

- 1.3.5 **Medieval:** the history of Furness soon became synonymous with that of its abbey, which was founded in 1127 after a gift of land by Stephen Count of Mortain and Boulogne (later King Stephen) in 1124 (West 1774, 24). The abbey came to dominate almost everything in the area, and both Barrow and Salthouse were granges connected to it; however, Barrow was not mentioned by name until after the Dissolution (Leach 1981, 24). Salthouse, as the name might suggest, was established as a grange in 1247 with a saltworks, and was granted several indulgences, including exemption from tithes (Kendall 1948, 24). Both Barrow and Salthouse are likely to have changed little in the following centuries and, although the Great Raid by Robert the Bruce of 1322 entered Furness and caused much devastation, it is not clear how severe this was (Barnes 1978, 32). One of the obligations held by the villagers was to maintain the sea defences (Kendall 1948), which was observed until the Dissolution of the Monasteries. During the sixteenth and seventeenth century there were several inundations of the coastline, which destroyed property in the village of Salthouse among others (Phillips and Rollinson 1971, 3).
- 1.3.6 **Post-medieval:** until the end of the eighteenth century Barrow consisted of only five farm houses with outbuildings, and originally consisted of eight homesteads founded by the abbey (Kendall 1909, 185). With the exception of a small farm, located close to the centre of the island, Barrow Island itself remained largely undeveloped pasture and arable fields well into the eighteenth century. In 1726, a large house was built close to the island's north coast, with a ford crossing the tidal Barrow Channel (Kendal 1948). The island, mansion and farm were bought by Robert Michaelson of Cartmel in 1746 (*ibid*). Salthouse too originally consisted of only four houses; the people living there were no doubt engaged at the salt works (Kendall 1948). Barrow was a farming village, not a fishing village, the latter would appear to be a Victorian myth (Trescatheric and The Dock Museum 2000, 2); its produce including oats, barley, wheat, beans and dairy cattle (*op cit*, 1) which remained the staples into the nineteenth century (Rollinson and Harrison 1986). The houses were probably similar to two pulled down in Salthouses in 1800 and 1802, which were recorded as being made of cobbles and clay, with cobbled floors and thatched roofs, and included a buttery (Kendall 1948, 36-7).
- 1.3.7 **Industrial period:** at first the events of the Industrial Revolution had little effect on Barrow, but the huge iron ore reserves of the Furness peninsula were soon to become a dominating factor in the town's development. The ore had been exploited on a small scale since at least medieval times (Fell 1908), and was shipped from a number of places across Furness (Marshall 1958). Transport links by land across the Furness Peninsula were very bad, consisting of little more than cart tracks, and the way across the sands of Morecambe Bay southwards was extremely dangerous (Marshall 1958, 82-3).

- 1.3.8 The deep-water port at Barrow was controlled by a custom house built at Piel and connected with Furness Abbey. By the middle of the eighteenth century the Backbarrow Iron Company began transporting small quantities of ore from Barrow and, as a result, a small number of new houses were built (Kendall 1909, 185). As demand for iron increased, the Newland Company bought land to found an ore-dumping ground in 1776, to allow the larger scale transport of material (Marshall 1958, 88). The Newland Company bought more land in 1780 and, in 1782, built a jetty, followed by a larger one in 1790, so that boats could be loaded at low tide (*ibid*).
- 1.3.9 Ore shipments increased steadily over the next few years; with a second jetty being built in 1833 by John Rawlinson, a third in 1839 by the Ulverston Mining Company, and a fourth in 1842 by Schneider and Partners (*op cit*, 91). Barrow increased little in size during this time, and is described as a ‘hamlet’ in 1829 (Parson and White 1829, 710) and gets almost no mention in guides of the period (such as Evans 1842 and Jopling 1843). It was the coming of the railway in 1846 that transformed Barrow, allowing huge amounts of iron ore to be transported from the mine to the harbour (Banks 1984). Two principal figures stand out in the history of Barrow at this crucial point: HW Schneider and James Ramsden. It was Schneider who encouraged the exploitation of iron in the area, albeit after several abortive attempts (Banks 1984), which led to increased prosperity in the area and ultimately to the development of smelting furnaces in the town. Ramsden increased the ability to transport the iron ore by massively improving the rail network in the area (Kellett 1990), which in turn led to the enlargement of the docks. In 1867 the Devonshire dock was opened (Barnes 1978, 91) after an Act was passed in 1863 allowing this expansion. In 1867 Barrow had grown so large that it received its Charter of Incorporation as a Borough (Trescatheric 1987, 5). It continued to grow from this point on, the docks growing alongside the development of the town. Many new houses were built at this time (Trescatheric 1985), including large blocks of flats built in the Scottish style (*op cit*, 27), the grid-pattern layout of the town having been established by James Ramsden in 1856.
- 1.3.10 Barrow’s prosperity continued to rest on its maritime links and ability to provide a safe harbour for ships. Shipbuilding itself did not begin in earnest in the town until the end of the 1840s (Latham 1991, 20), and it became a significant industry in the following decades. By 1872 the Graving Dock was opened, and in 1873 the Buccleuch Dock was complete (Barnes 1978, 91). Ramsden Dock was finished in 1879, and Cavendish Dock opened shortly afterwards (*ibid*). By this point, however, Barrow’s iron industry was in serious decline; not only was the supply of ore at the mines running out, but there was also less demand for the materials and the hinterland could not support such a large harbour (Stark 1972, 2). As a result, the Cavendish Dock was never properly used and is perhaps symbolic of the excessive aspirations for Barrow which, in the event, were not fulfilled (*ibid*). As a result of the collapse of the iron and steel industry, Barrow reverted to an economy based entirely on shipbuilding and armaments (*ibid*). As late as 1867, Barrow Island remained largely undeveloped (Kellett 1990), and the earliest documented industrial activity on the present development site was that of the Barrow Iron Shipbuilding Company, established in 1871.

- 1.3.11 Plans of the Barrow docks drawn-up between 1867 and 1883 trace the rapid industrial development of Barrow Island. Within the area now forming the allotment gardens, this industrial development included the construction of an L-shaped configuration of Foremen's cottages (OA North 2003, Site **72**), which are shown on the 1883 Dockyard plan and labeled on the 1891 Ordnance Survey (OS) map (Figs 2 and 3). During an earlier archaeological evaluation, several trenches were excavated quite close to the allotment gardens and these indicated that to the north-east of the cottages the ground had been made-up with building debris and redeposited sand deposits, seemingly to a depth of 1.6-2m (OA North 2005). Evaluation trenches excavated to the south of the cottages also revealed successive sandy layers that may have originated from the dredging of the channels and dock basins (*ibid*). The cottages themselves were not evaluated, and the potential for the preservation of associated structural remained high, particularly where sealed by later dumped layers.

2. METHODOLOGY

2.1 WRITTEN SCHEME OF INVESTIGATION

- 2.1.1 The CCCHES-approved project design (*Appendix 2*) was adhered to in full, and all works were consistent with the relevant standards and procedures of the Institute for Archaeologists, and generally accepted best practice.

2.2 WATCHING BRIEF

- 2.2.1 The archaeological watching brief observed two separate phases of groundworks completed at the allotment gardens. The first phase of groundworks was undertaken between 12th and 16th January 2009 and entailed the reduction of ground levels by 2.5m at the eastern end of the area of archaeological potential as defined by CCCHES (*Appendix 1*; Fig 1). This area was excavated using a 360° mechanical excavator fitted with a toothed bucket. The second phase of groundworks was undertaken between the 17th and 28th August 2009 and comprised the reduction of ground levels to a maximum depth of 2.5m within the central portion of the area of archaeological potential (Plate 1). As with the first phase, this area was also excavated using a 360° mechanical excavator fitted with a toothed bucket.
- 2.2.2 Both phases of the watching brief aimed to record the location, extent, and character of any surviving archaeological features, artefacts and/or deposits revealed by the ground works. Recording on OA North *pro-forma* sheets comprised a full description and preliminary classification of features or structures revealed, and their accurate location in plan. An indexed photographic record in colour slide and monochrome formats was also compiled, with digital photographs taken for illustrative purposes.
- 2.2.3 A single ten-litre environmental bulk sample was recovered from what was thought to be a charcoal-rich sandy lens (**04**). This was processed by manual flotation in accordance with accepted professional guidelines (English Heritage 2002).

2.3 ARCHIVE

- 2.3.1 A full archive of the watching brief has been produced in accordance with current English Heritage guidelines (English Heritage 1991). The archive will be deposited in the County Record Office (Barrow), and a copy of this report submitted to the Cumbria Historic Environment Record (Kendal). The Arts and Humanities Data Service (AHDS) online database *Online Access to index of Archaeological Investigations* (OASIS) will be completed as part of the archiving phase of the project.

3. RESULTS

3.1 INTRODUCTION

- 3.1.1 The following section summarises the results of the watching brief in stratigraphic order rather than by works phase; detailed context descriptions are provided in *Appendix 3*. The works location is shown on Figure 1, and detailed plans of the results are presented on Figures 4-6.

3.2 RESULTS

- 3.2.1 The earliest deposits, identified at depths of 2.5-3m below ground level and continuing beyond the 6m-deep limit of excavation, comprised rather mixed layers of coarse sand and clays, and were interpreted as the natural geology (**15**). Overlying this was a deposit of layered sand (**05**) which, where exposed, was seen to traverse the whole of the site. This deposit was over 0.5m deep (Plate 2), and was observed to have several lenses of darker coloured sand. Close to the surface of sand deposit **05** was a lens of dark discoloured sand (**04**), which contained some fragments of coal and heat-affected vesicular material (E Huckerby *pers comm*).
- 3.2.2 Overlying the sand was a c 1.2m-thick deposit of pinkish-orange clay (**02**) containing pebbles but no finds (Plate 3). The depositional history of this clay layer was not particularly clear, and it may be re-deposited glacial clay. The clay was in turn overlain by sandy silt deposits **27** and **28**.
- 3.2.3 Located at the western end of the site and defining the northern boundary was the truncated foundations of an east/west-orientated terraced building (**07**), measuring 5.95m wide by some 100m long (Plates 4 and 5; Figs 4 and 5). A north/south-aligned range (**06** and **08**), measuring 6.2m by 39m, was located at the west end of the terrace (Plate 6; Figs 4 and 6). Both buildings (**03**) had been constructed on the surface of clay layer **02** and sandy silt layers **27** and **28**. The foundations, which generally survived to a maximum height of five courses and ranged from one to three bricks wide, were composed of nineteenth-century handmade bricks, which included both frogged and non-frogged types (*Section 3.3; Appendix 3*). Within the interior of the buildings, the fragmentary remains of a number of internal brick-built partition walls were noted (Plate 7). They were much better preserved in Building **07**, where they clearly formed divisions between different houses, and separate rooms within those dwellings. Preservation of these features was limited to the northern end of building **06/08**, its southern half surviving only as a shell of outer walls. Even with variable preservation considered (only the easternmost house of Building **07** seemed to have its full complement of internal walls), there was much variation in the internal conformation of the individual dwellings. For example, in several cases the dividing walls appeared to define a series of long rooms perpendicular to the axis of the house, whilst others seemed to divide the house into front and back rooms. The remains of brick and stone-flagged surfaces were occasionally

preserved, mostly along the northern exterior wall of Building **07** (Plate 8). Other than a nineteenth-century perfume bottle (*Appendix 3*), no other artefacts were discovered within the building's interior.

- 3.2.4 To the west of building **03** a substantial dump of industrial waste (**30**) was identified sitting above sand **02** (Plate 9), and was interpreted as evidence of an infilled sand extraction pit. The latest activity identified related to the use of the site for allotments following the demolition of buildings **06-08**. Topsoil stripping revealed numerous twentieth-century features related to the modern use of the allotment. These features, which, due to their late date, were not recorded in detail, included postholes, garden and drainage features. They were associated with fragments of modern ceramic building material, pottery and plastic, and were cut into a deposit of mid-orange clay (**02**) or, at times, utilised the footings of the demolished terrace. The features were sealed by topsoil **01**, which contained a mixture modern debris, including building materials and general refuse mixed with a brown organic soil, all remnants of the areas use as allotments.

3.3 FINDS

- 3.3.1 Only four objects were recovered during the project, a small pressed glass bottle and three bricks. All are from building **03** and of nineteenth- to twentieth-century date.
- 3.3.2 The bottle is mould-blown in imitation of faceted cut glass, and has a narrow screw-threaded top. The cap survives and appears to be plastic, thus placing its date in the mid-twentieth century at the earliest.
- 3.3.3 Two of the three bricks (*Appendix 3*) appear to be in the same or similar fabric. Both lack a frog and are thus probably hand-made. The third, in a coarser but paler fabric, has a shallow depression on one face. All retain patches of a hard darkish grey mortar, which does not appear to be of any antiquity.

4. CONCLUSIONS

4.1 DISCUSSION

- 4.1.1 The most significant archaeological remains identified during the watching brief were those of the late nineteenth-century L-shaped terrace (recorded as buildings **06/08** and **07**) that are first plotted on the 1883 Dockyard plan of Barrow (Kellet 1883) and annotated as the *Foremen's Cottages* on the 1891 OS map. Both the 1891 and 1913 OS maps (Figs 2 and 3) show that the east/west-aligned terrace was divided into ten dwellings, whilst the north/south terrace was divided into four. If the divisions depicted on the OS maps are commensurate with the size of each dwelling, then each house would be 10m wide by about 6m deep. Certainly, the depth of buildings **06/08** and **07** are similar to this, and it is possible to divide building **07** into ten 10m-wide units on the basis of surviving internal walls.
- 4.1.2 The historical maps depict a series of small, square, regularly spaced and identically sized outshuts adjoining the northern and western exterior walls of buildings **06/08** and **07** respectively. Each of the houses has its own outshut, and, placed straddling the party wall, shares a second with a neighbour. Very little archaeological evidence for these structures survived, so it must be assumed that they were fairly insubstantial, single-storey features. Some hint of their character was preserved at the western end of building **07**. Here, in positions analogous to those portrayed on the historical maps, two areas of brick flooring were bounded by brick walls and concrete yard surfaces. A short length of brick wall close to the party wall of the westernmost and penultimate dwellings of building **07** (houses a and b), together with an appropriately sized gap in the concrete surfaces there, was all that remained of one of the shared outshuts. Several ceramic drains were observed in similar positions at the eastern end of building **07** and it can be assumed that some of the outshuts functioned as privies to the rear of each dwelling, others perhaps as coal sheds. Given that each household would have been responsible for the procurement and storage of their coal, it might not be unreasonable to suggest that the privies were the shared facility.
- 4.1.3 The historical maps, particularly where the arrangement of the outshuts is concerned, appear to suggest that the cottages were built as mirrored pairs to a standard plan. Subsequent modifications and differential preservation meant that there was little surviving evidence for an original internal ground plan. However, there is some uniformity and mirroring to the internal plans of houses a-d and g-h, suggesting the ground floor was divided into at least five rooms, and quite possibly more. Where preserved, brick floors were most common in the dwellings' northern corner closest to the position of the shared outshut. Despite subsequent modifications to other parts of the house, these 2m-square areas were particularly common, and were likely to have been kitchens or sculleries. Generally, however, the lack of *in-situ* artefacts and internal features precludes any identification of the use that the other rooms were put to.

- 4.1.4 Given the complex depositional history of Barrow Island, which has had glacial, marine-alluvial and human (such as dredging) influences, the origin of those deposits underlying the archaeological remains is hard to interpret. Similar sandy layers were revealed by evaluation trenches excavated to the south of the cottages and were interpreted as either originating naturally, or were from the dredging of the channels and dock basins (OA North 2005). In this case, three factors might indicate that the sand is natural. First, the site is a long way from the shore, and perhaps thus unlikely to receive large amounts of dredging material. Secondly, the fact that the sand was extracted in the latter part of the nineteenth century (OS 1891) suggests that it was of a sort that could not be had from the ready supplies of dredged material elsewhere. Thirdly, the presence of fine sediment lines in the sand would indicate natural, aeolian, deposition. The character of lens **04** does not refute such an interpretation. The coal fragments therein could have derived naturally from beach deposits (from a seam of coal is known to exist off the Cumbrian coast; E Huckerby *pers comm*), or, particularly when the heat-affected vesicular material is considered, may indicate that natural deposition continued into the nineteenth century.

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6. ILLUSTRATIONS

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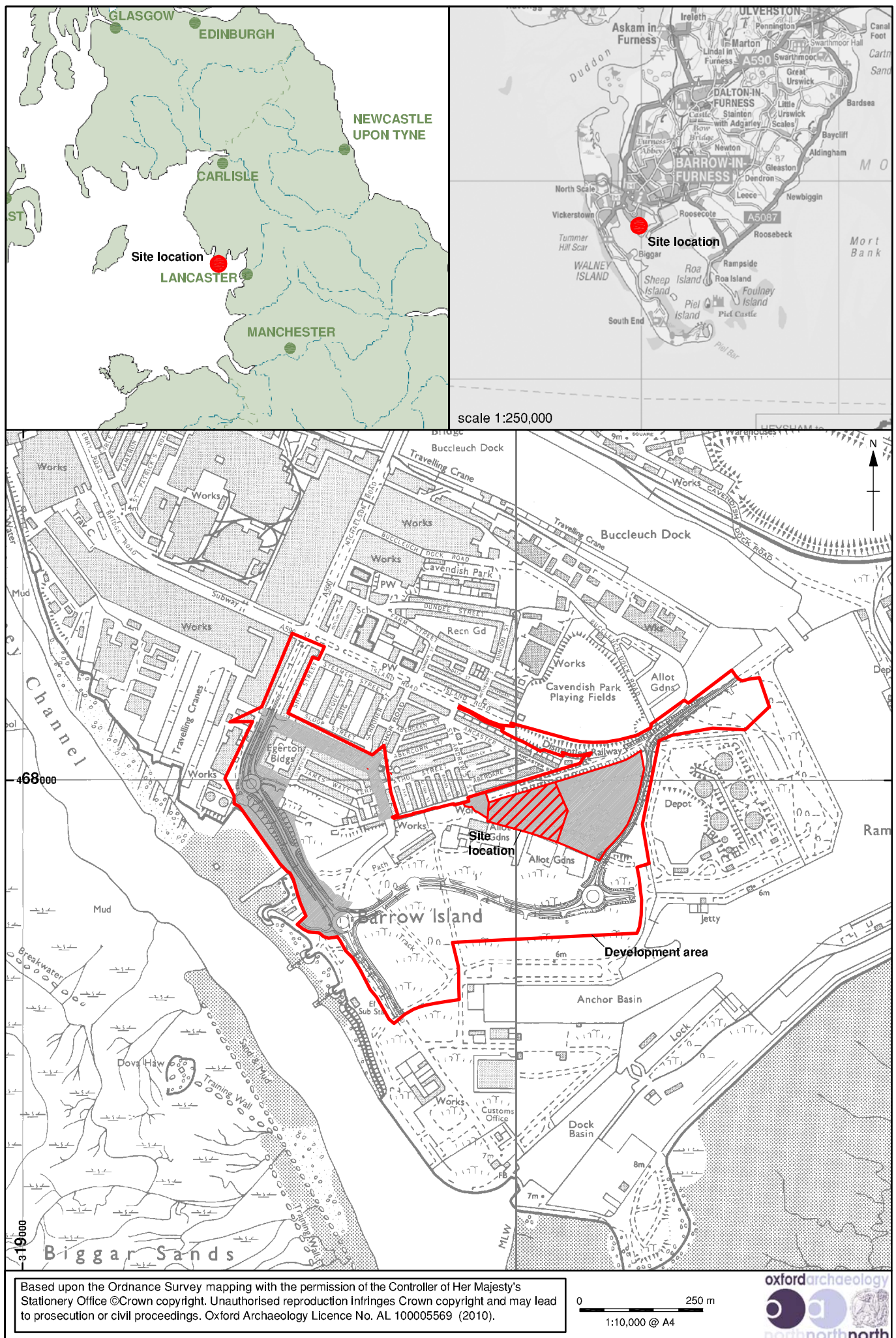


Figure 1: Site location

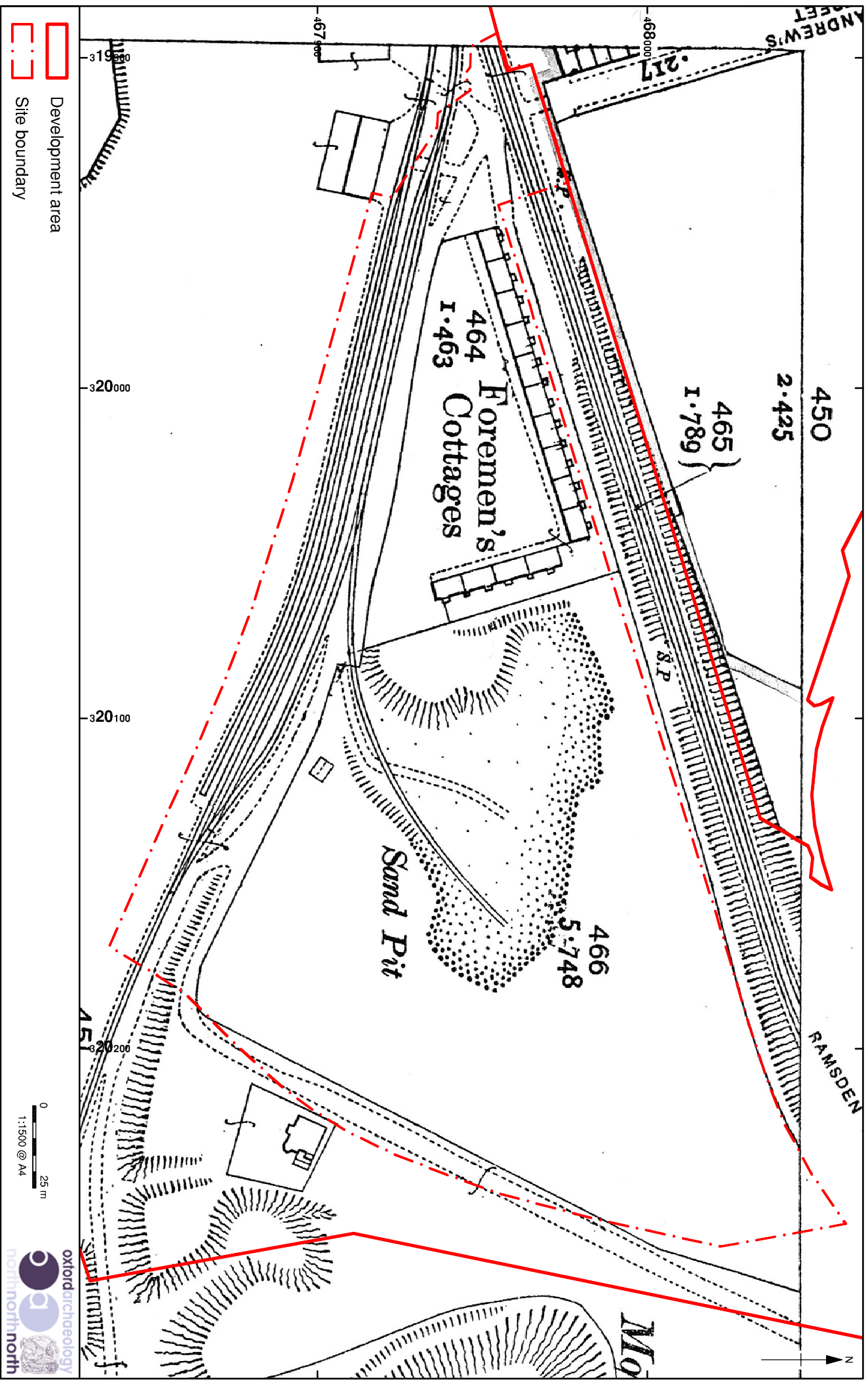


Figure 2: Extract of the Ordnance Survey 6" to one mile map, 1890

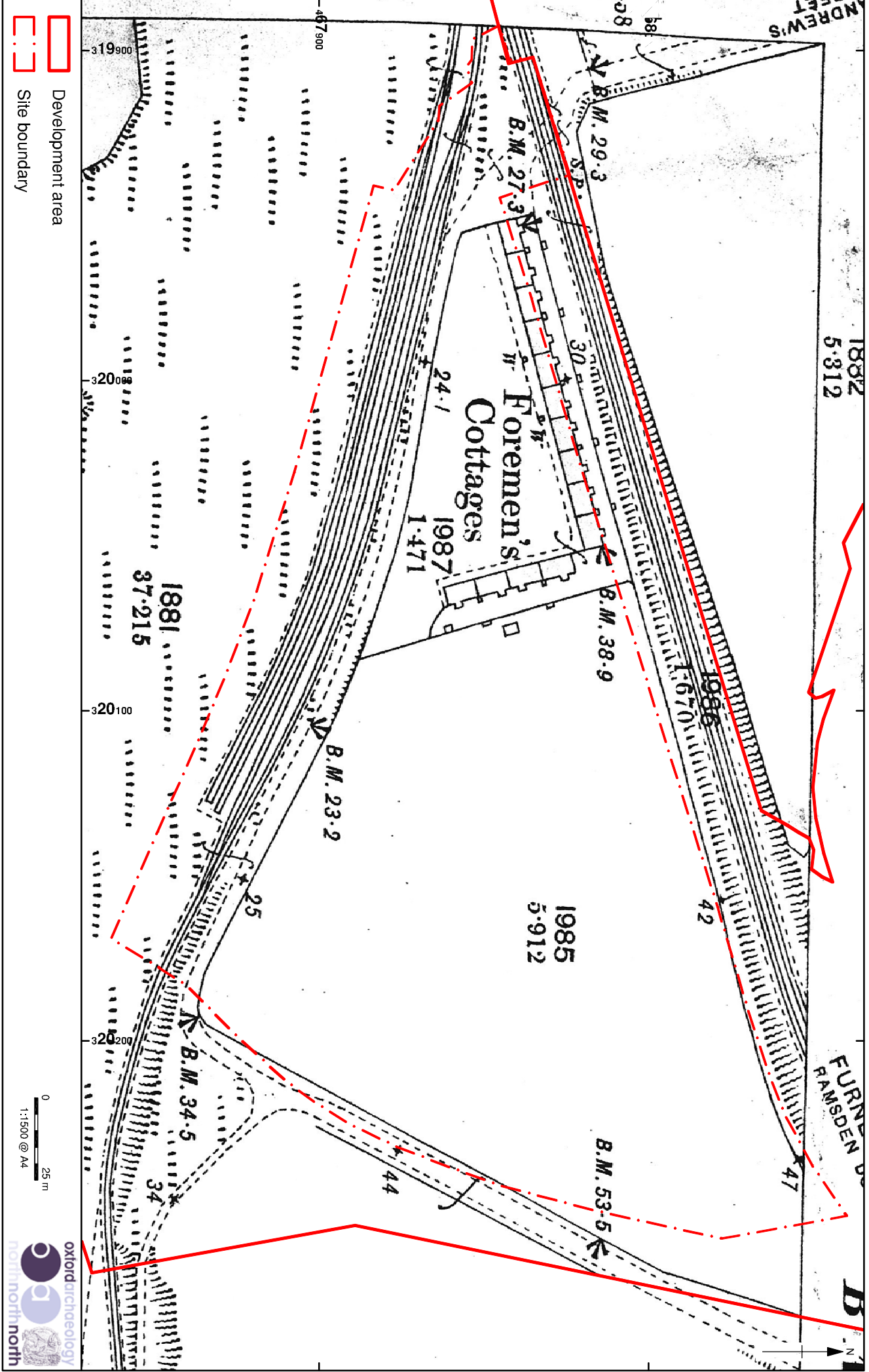


Figure 3: Extract of the Ordnance Survey 6" to one mile map, 1913

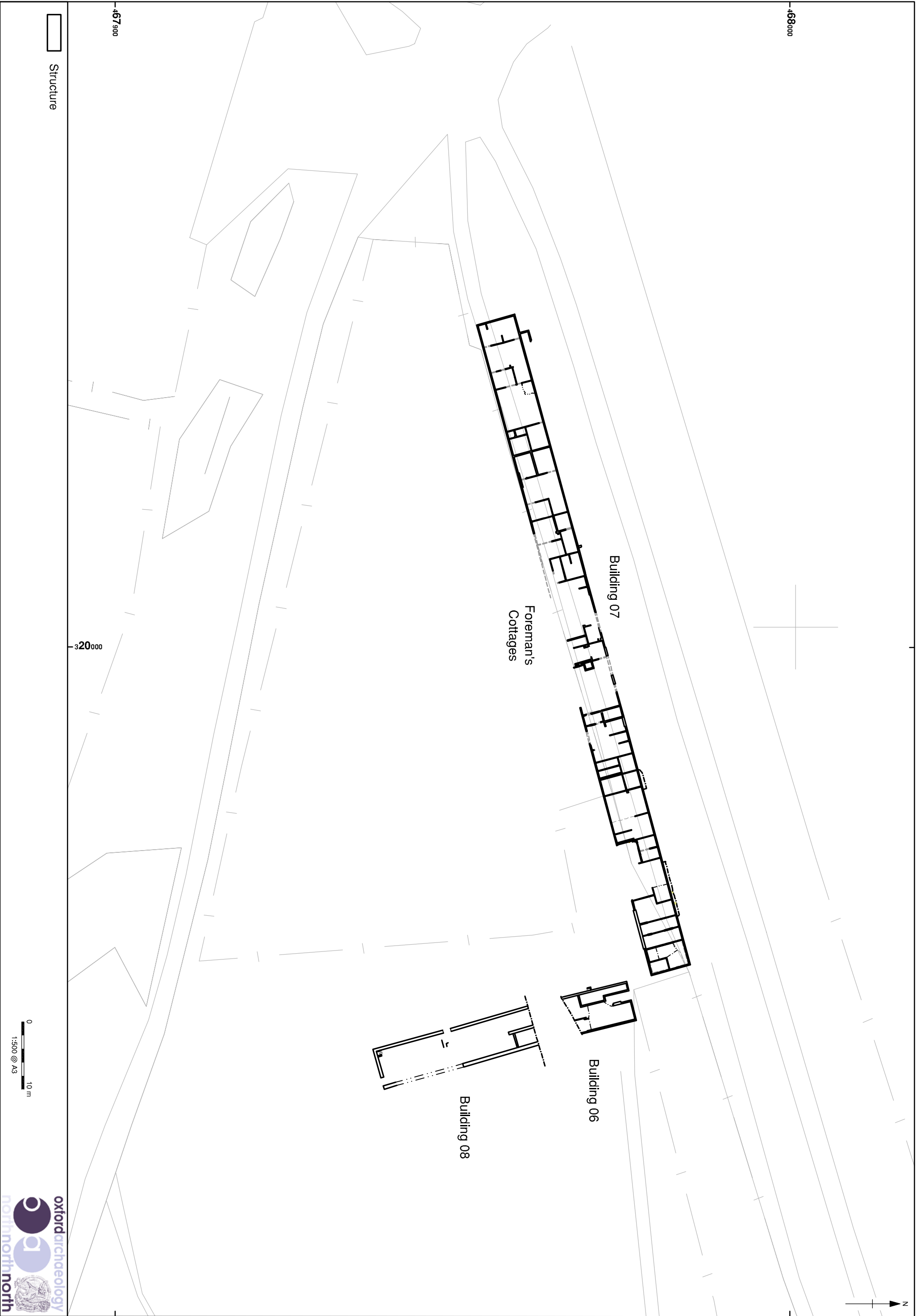
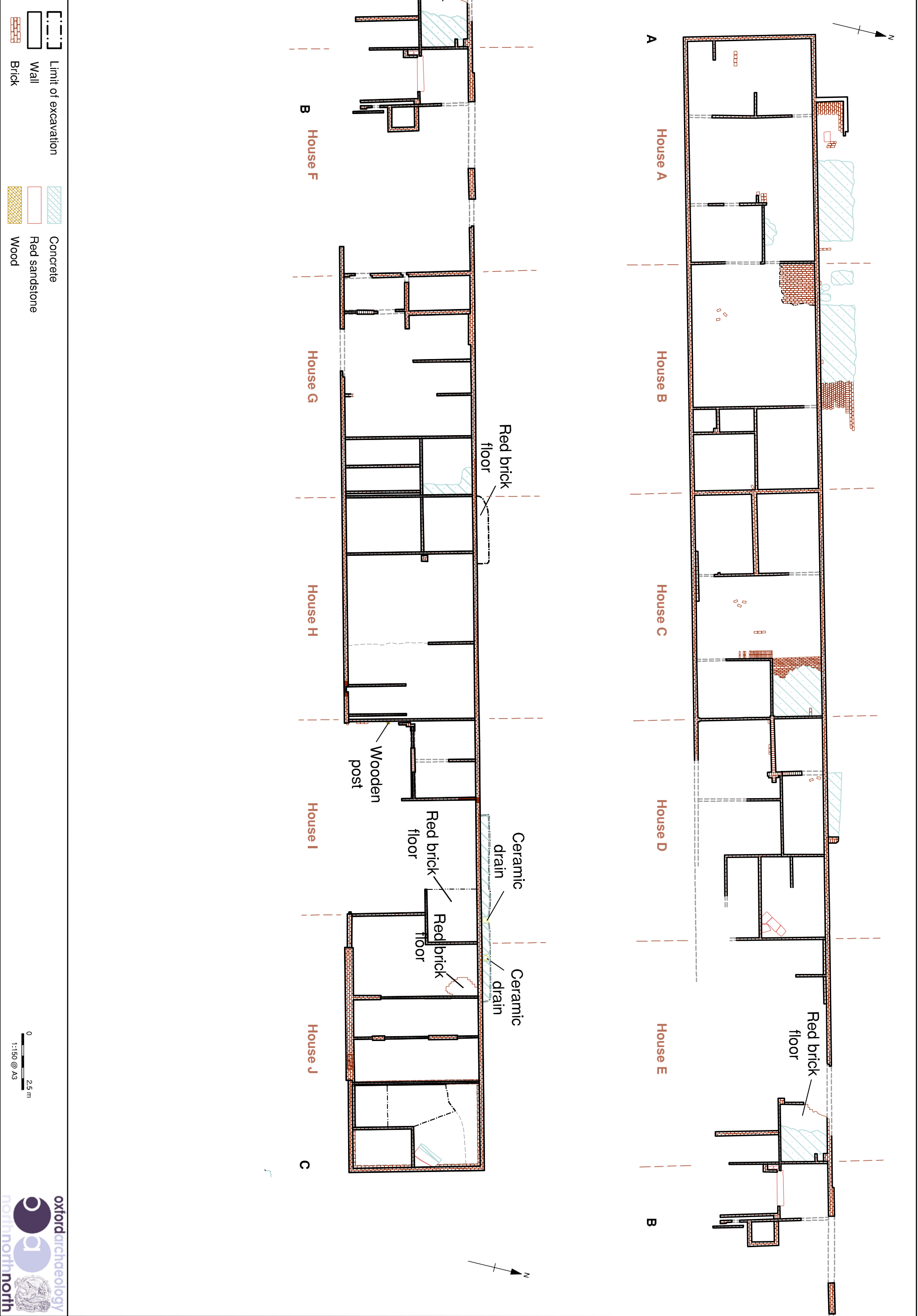


Figure 4: Overall plan of remains of Foreman's Cottages (Building 03)



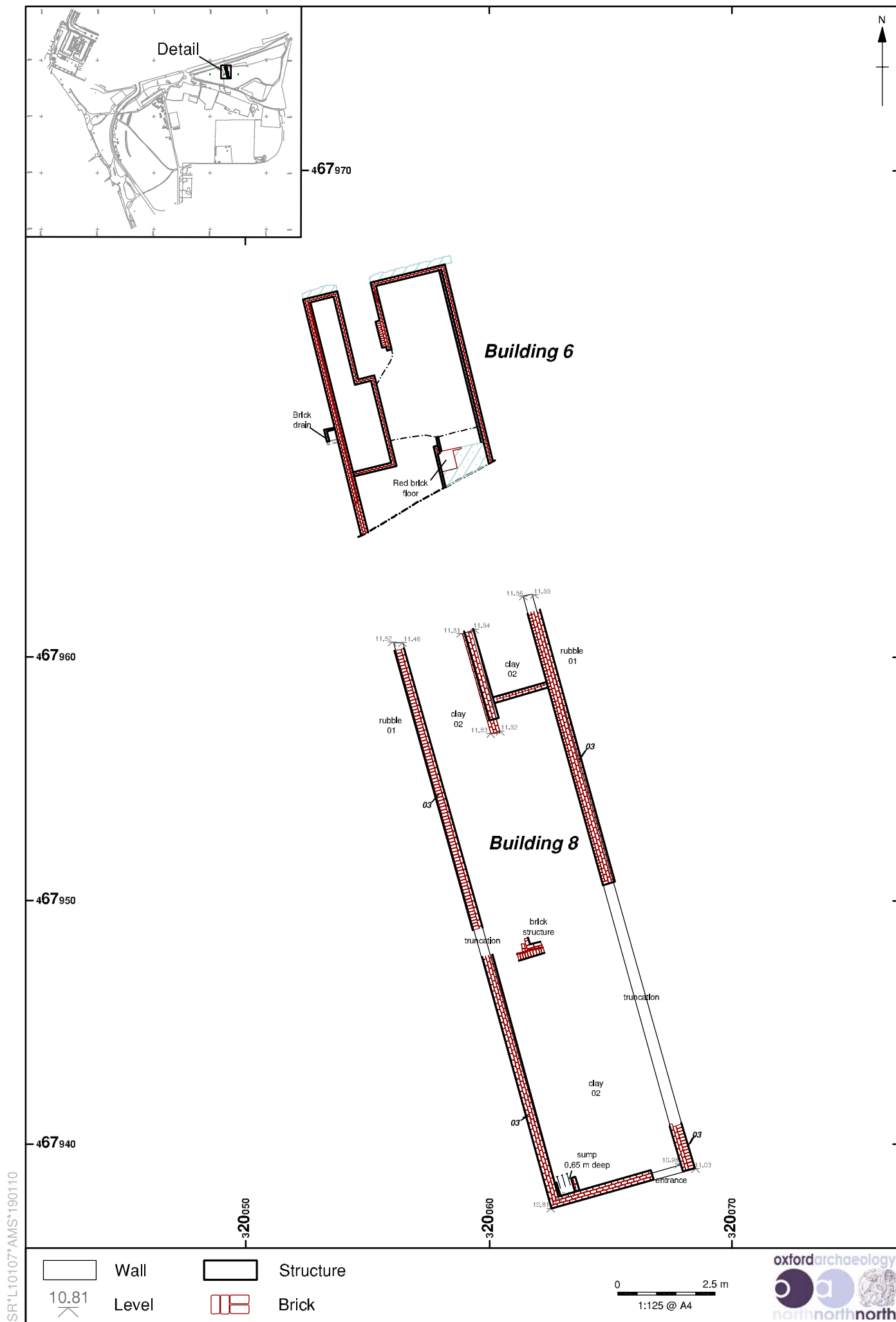


Figure 6: North/south-aligned part of the Foremen's Cottages (Building **06** and **08**)



Plate 1: General working shot of ground reduction



Plate 2: Sand deposit 05, which extended across the whole of the site; viewed from the west



Plate 3: Section through the site's deposits



Plate 4: Western end of the east/west-aligned range of the Foremen's Cottages (Building 07); viewed toward the west



Plate 5: The western extent of Building 07



Plate 6: The north/south-aligned range of the Foremen's Cottages (Building 06);
viewed from the north-east



Plate 7: Well-preserved internal walls within Building *07*



Plate 8: Internal brick floor within Building *07*



Plate 9: The edge of the sand extraction pit, denoted by the truncated clay deposit (02) to the left, upon which the Foremen's Cottages (03) were constructed, and sand deposit (05) to the right. The later backfill (30) can be seen in the centre, by the 2m ranging rod

APPENDIX 1: CCCHES BRIEF

**BRIEF FOR AN ARCHAEOLOGICAL WATCHING BRIEF
ON LAND TO THE SOUTH OF BARROW ISLAND AND EAST OF WALNEY CHANNEL
BARROW-IN-FURNESS, CUMBRIA**

Issued by the

County Historic Environment Service

Environment Unit, Economy, Culture and Environment



Date of Brief: 16 May 2007

This Design Brief is only valid for 1 year after the above date. After this period the County Historic Environment Service should be contacted. Any specification resulting from this Brief will only be considered for the same period.

1. SITE DESCRIPTION AND SUMMARY

Site: Land to the south of Barrow Island and east of Walney Channel, Barrow-in-Furness

Grid Reference: SD 2000 6795

Planning Application No.: 6/06/9027

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. The work should be under the direct management of either an Associate or Member of the Institute of Field Archaeologists, or equivalent. Any response to this Brief should follow IFA Standard and Guidance for an Archaeological Watching Brief, 2001. No fieldwork may commence until approval of a specification has been issued by the County Historic Environment Service.

2. PLANNING BACKGROUND

- 2.1 Cumbria County Council's Historic Environment Service (CCCHES) has been consulted by the county planning authority regarding a planning application for the remediation of an area of land, the implementation of infrastructure works and the reconstruction of the existing allotment gardens on land to the south of Barrow Island and east of Walney Channel, Barrow-in-Furness.
- 2.2 The site has been the subject of an archaeological desk-based assessment (Oxford Archaeology North, 2003, *Barrow Harbour, Barrow-in-Furness, Cumbria, Desk Based Assessment*, unpublished report) and evaluation (Oxford Archaeology North, 2005, *Barrow Ports Regeneration Project, Archaeological Evaluation Report*, unpublished report) and this brief must be read in conjunction with these reports. The majority of the scheme will not have an archaeological impact but the proposed works to the allotments will affect the site of a group of foremen's cottages, as shown on late 19th century maps. Consequently, a programme of archaeological works comprising a watching brief is required during the course of the ground works of the development.
- 2.3 This advice is in accordance with guidance given in Planning Policy Guidance note 16 (Archaeology and Planning) and with the county structure plan.

3. ARCHAEOLOGICAL BACKGROUND

- 3.1 The a number of cottages are shown on the late 19th century maps labelled Foremen's Cottages within the area of the existing allotments.

4. SCOPE OF THE PROJECT

4.1 Objectives

- 4.1.1 To identify, investigate and record any surviving archaeological remains revealed during the course of the development ground works within the area shown on the attached plan.

4.2 Work Required

- 4.2.1 All topsoil stripping and ground reduction must be carried out under archaeological supervision. Any putative archaeological features must then be cleaned by hand and if possible a stratigraphic record made. Finds and environmental samples should be retrieved as appropriate. A reasonable period of uninterrupted access should be allowed to the archaeologist for all necessary archaeological recording.

5. SPECIFICATION

- 5.1 Before the project commences a specification must be submitted to and approved by the County Historic Environment Service.
- 5.2 Proposals to meet this Brief should take the form of a detailed specification prepared in accordance with the recommendations of *The Management of Archaeological Projects*, 2nd ed. 1991, and must include:
- ❖ A description of the methods of observation 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, e.g. the number of people to be employed on site per day
 - ❖ A projected timetable for all site work and post excavation work (through to final publication of results)
- 5.3 Any significant variations to the proposal must be agreed by the County Historic Environment Service in advance.

6. REPORTING AND PUBLICATION

- 6.1 The archaeological work should result in a report, this should include as a minimum:
- ❖ A site location plan, related to the national grid
 - ❖ A front cover/frontispiece which includes the planning application number and the national grid reference of the site
 - ❖ A concise, non-technical summary of the results
 - ❖ A date when the project was undertaken and by whom
 - ❖ 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 brief photographic record of the site must be included, showing any features of archaeological interest. Where the results of the project revealed no significant archaeological remains a single photograph showing an indicative section of trench will suffice.
 - ❖ 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
- 6.2 Three copies of the report should be deposited with the County Historic Environment 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 Historic Environment Record.
- 6.3 A summary report should be submitted to a suitable regional or national archaeological journal within one year of completion of fieldwork. If archaeological remains of significance are identified, one or more full reports should also be submitted to a suitable journal or other publication in due course.
- 6.4 Cumbria HER is taking part in the *Online Access to Index of Archaeological Investigations* (OASIS) project. The online OASIS form at <http://ads.ahds.ac.uk/project/oasis> must therefore also be completed as part of the project. Information on projects undertaken in Cumbria will be made available through the above website, unless otherwise agreed.

7. THE ARCHIVE

- 7.1 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.

- 7.2 The landowner should be encouraged to transfer the ownership of finds to a local or relevant specialist museum. The museum's requirements for the transfer and storage of finds should be discussed before the project commences.
- 7.3 The County Historic Environment Service must be notified of the arrangements made.

8. PROJECT MONITORING

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

9. FURTHER REQUIREMENTS

- 9.1 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 County Historic Environment Service bears no responsibility for the inclusion or exclusion of such information within this brief or subsequent specification.**
- 9.2 The Code of Conduct of the Institute of Field Archaeologists must be followed.
- 9.3 The involvement of the County Historic Environment Service should be acknowledged in any report or publication generated by this project.

10. FURTHER INFORMATION

For further information regarding this Brief, contact

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Kendal
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Email: Jeremy.Parsons@cumbriacc.gov.uk

For further information regarding the County Historic Environment Record, contact

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As part of our desire to provide a quality service to all our clients we would welcome any comments you may have on the content or presentation of this design brief. Please address them to the Assistant Archaeologist at the above address.

APPENDIX 2: PROJECT DESIGN

1.1 PROJECT BACKGROUND

- 1.1.1 As part of the Barrow Ports Regeneration Project, Carillion plc, on behalf of Capita Symonds and Cumbria County Council, propose to undertake a programme of remediation, infrastructure works and reconstruction of the allotment gardens towards the south of Barrow Island, Barrow-in-Furness, Cumbria (Grid reference SD 2000 6795; Planning reference 6/06/9027). Previous archaeological works undertaken in association with the wider programme of development, including a desk-based assessment (DBA; OA North 2003) and a trial trench evaluation (OA North 2005) identified that the present area of proposed groundworks does have some archaeological potential. Consequently, in accordance with Planning Policy Guidance note 16 (Archaeology and Planning: PPG16) and with the county structure plan, Cumbria County Council Historic Environment Service (CCCHES) issued a brief and plan requesting that an archaeological watching brief be maintained during any ground disturbing activities associated with the development. The following document represents a project design to carry out the above programme of work and has been prepared in accordance with the CCCHES brief.

1.2 HISTORICAL AND ARCHAEOLOGICAL BACKGROUND

- 1.2.1 More comprehensive details of the history and archaeology of the area can be found in earlier reports prepared for the development (OA North 2003; OA North 2005), and will not be reiterated here. Although in the wider locale there is quite extensive evidence for prehistoric activity, often in the form of scatters of flint tools and debitage, no such sites have been identified within the present watching brief area. It would appear that the present area of investigation remained undeveloped and rather marshy until the later nineteenth century. The 1842 Tithe map indicates the presence of sheepfolds close-by (DBA Site 53), suggesting that the area may traditionally have been given over to rough pasture.
- 1.2.2 Between 1867 and 1883, when plans of the Barrow docks were drawn-up, Barrow Island saw rapid industrial development including, within the present watching brief area, an 'L'-shaped configuration of Foreman's cottages (DBA Site 72) shown on the 1883 Dockyard plan and labeled on the 1891 OS map. During the evaluation, several trenches were excavated quite close to the present watching brief area. Trenches to the north-east of the cottages (ie, Trench 71) indicated that the ground had been made-up with building debris and redeposited sand deposits, seemingly to a depth of 1.6m-2m. Those to the south of the cottages (ie, Trenches 69 and 70) revealed successive sandy layers that are likely to have originated from the dredging of the channels and dock basins. It is possible that the remains of the cottages could lie sealed between such dumping episodes.

1.3 OXFORD ARCHAEOLOGY NORTH

- 1.3.1 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 25 years. Evaluations, desk-based 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 has the professional expertise and resources to undertake the project detailed below to a high level of quality and efficiency. 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.

2 OBJECTIVES

- 2.1 The following programme has been designed to record the archaeological deposits affected by the proposed development of the site, in order to determine their extent, nature and significance and to preserve them by record in advance of the destruction. To this end, the following programme has been designed, in accordance with a brief by CCCHES and will involve the following stages:

2.2 *Archaeological Watching Brief*

To undertake a programme of observation and recording during any ground disturbance to determine the presence, quality, extent and importance of any archaeological remains on the site and to record them in an appropriate level of detail prior to their destruction.

2.3 *Report and Archive*

A 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. METHOD STATEMENT

3.1 WATCHING BRIEF

- 3.1.1 **Methodology:** a programme of field observation will accurately record the location, extent, and character of any surviving archaeological features and/or deposits within the area shown on the plan attached to the CCCHES brief dated 16th May 2007. This work will comprise observation during all ground reduction and excavations for the proposed development, the systematic examination of any subsoil horizons exposed during the course of the groundworks, and the accurate recording of all archaeological features and horizons, and any artefacts, identified during observation.
- 3.1.2 The watching brief will cover the whole of the area to be disturbed by the development including, topsoil stripping, foundation trenches and other earthmoving activities.
- 3.1.3 Putative archaeological features and/or deposits identified during the observation of groundworks, together with the immediate vicinity of any such features, will be cleaned by hand, using either hoes, shovel scraping, and/or trowels depending on the subsoil conditions and, where appropriate, sections will be studied and drawn. Any such features will be sample excavated (ie. 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).

- 3.1.4 During this phase of work, recording will comprise a full description and preliminary classification of features or materials revealed, and their accurate location (either on plan and/or section, and as grid co-ordinates where appropriate). Features will be planned accurately at appropriate scales and annotated on to a large-scale plan provided by the Client. A photographic record will be undertaken simultaneously.
- 3.1.5 A plan will be produced of the areas of groundworks showing the location and extent of the ground disturbance and one or more dimensioned sections will be produced.
- 3.1.6 **Treatment of finds:** all finds will be exposed, lifted, cleaned, conserved, marked, bagged and boxed in accordance with the United Kingdom Institute for Conservation (UKIC) *First Aid For Finds*, 1998 (new edition) and the recipient museum's guidelines.
- 3.1.7 **Treasure:** any gold and silver artefacts recovered during the course of the excavation will be removed to a safe place and reported to the local Coroner according to the procedures relating to the Treasure Act, 1996. Where removal cannot take place on the same working day as discovery, suitable security will be employed to protect the finds from theft.
- 3.1.8 All identified finds and artefacts will be retained, although certain classes of building material can sometimes be discarded after recording if an appropriate sample is retained on advice from the recipient museum's archive curator.
- 3.1.9 **Human Remains:** any human remains uncovered will be left *in situ*, covered and protected. No further investigation will continue beyond that required to establish the date and character of the burial. CCCHEs and the local Coroner will be informed immediately. If removal is essential, the exhumation of any funerary remains will require the provision of a Home Office license, under section 25 of the Burial Act of 1857. An application will be made by OA North for the study area on discovery of any such remains and the removal will be carried out with due care and sensitivity under the environmental health regulations.
- 3.1.10 **Contingency plan:** in the event of significant archaeological features being encountered during the watching brief, discussions will take place with the Planning Archaeologist or his representative, as to the extent of further works to be carried out. All further works would be subject to a variation to this project design. In the event of environmental/organic deposits being present on site, it would be necessary to discuss and agree a programme of palaeoenvironmental sampling and or dating with the Planning Archaeologist.
- 3.2 **REPORT AND ARCHIVE**
- 3.2.1 **Report:** one bound and one unbound copy of a written synthetic report will be submitted to the Client, and a further three copies submitted to the Cumbria HER within eight weeks of completion. The report will include:
- a front cover to include the planning application number and the NGR
 - a site location plan, related to the national grid
 - the dates on which the fieldwork was undertaken
 - a concise, non-technical summary of the results
 - a description of the methodology employed, work undertaken and results obtained
 - plans and sections at an appropriate scale, showing the location of features
 - other illustrations and photographic plates showing, as appropriate, features of interest or to demonstrate the absence of archaeological features.
 - a description and appropriate interpretation of any environmental, finds, or other specialist work undertaken, and the results obtained, including spot dates.

- the report will also include a complete bibliography of sources from which data has been derived.
 - a copy of this project design in the appendices, and indications of any agreed departure from that design
- 3.2.2 This report will be in the same basic format as this project design; a copy of the report can be provided on CD, if required.
- 3.2.3 Archive: the results of all archaeological work carried out will form the basis for a full archive to professional standards, in accordance with current English Heritage guidelines (Management of Archaeological Projects, 2nd edition, 1991). The project archive represents the collation and indexing of all the data and material gathered during the course of the project. It will include summary processing and analysis of all features, finds, or palaeoenvironmental data recovered during fieldwork, which will be catalogued by context. All artefacts will be processed to MAP2 standards and will be assessed by our in-house finds specialists.
- 3.2.4 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. OA North conforms to best practice in the preparation of project archives for long-term storage. This archive will be provided in the English Heritage Centre for Archaeology format and a synthesis will be submitted to the Cumbria HER (the index to the archive and a copy of the report). OA North practice is to deposit the original record archive of projects with the County Record Office, Kendal. The material archive (artefacts and ecofacts) will be deposited with an appropriate museum following agreement with the client.
- 3.2.5 The Arts and Humanities Data Service (AHDS) online database project Online Access to index of Archaeological Investigations (OASIS) will be completed as part of the archiving phase of the project.
- 3.2.6 Confidentiality: all internal reports to the client are designed as documents for the specific use of the client, for the particular purpose as defined in the project brief and project design, and should be treated as such. They are not suitable for publication as academic documents 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. HEALTH AND SAFETY

- 4.1 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 risk assessment will be completed in advance of any on-site works and copies will be made available on request to all interested parties.

5. WORK TIMETABLE

- 5.1 *Archaeological Watching Brief*: the duration of this element is dependant upon the duration of any ground disturbing activities on the site, but is presently estimated as three weeks from the 12/1/09.
- 5.2 *Report and Archive*: a report will be submitted within eight weeks of the completion of the fieldwork. However, should an interim statement be required this can be issued within two weeks but instruction must be received from the client prior to completion of the fieldwork.

- 5.3 **Written Instruction;** OA North can execute projects at very short notice once written confirmation of commission has been received from the Client. One weeks notice would be sufficient to allow the necessary arrangements to be made to commence the task and inform CCCHES.

6. PROJECT MONITORING

- 6.1 **Access:** liaison for site access during the evaluation will be arranged with the client unless otherwise instructed prior to commencement of the archaeological investigation.
- 6.2 Whilst the work is undertaken for the client, the County Archaeologist will be kept fully informed of the work and its results, and will be notified a week in advance of the commencement of the fieldwork. Any proposed changes to the project design will be agreed with CCCHES in consultation with the Client.

7. STAFFING PROPOSALS

- 7.1 The project will be under the direct management of Stephen Rowland (OA North project manager) to whom all correspondence should be addressed.
- 7.2 All elements of the archaeological investigation will be supervised by either an OA North project officer or supervisor experienced in this type of project. Due to scheduling requirements it is not possible to provide these details at the present time. All OA North project officers and supervisors are experienced field archaeologists capable of carrying out projects of all sizes.
- 7.3 Assessment of the finds from the evaluation will be undertaken under the auspices of 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.
- 7.4 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. Assessment of any faunal material will be undertaken by Andrew Bates MSc (OA North Supervisor).

8. BIBLIOGRAPHY

Institute of Field Archaeologists (IFA), 1992, *Guidelines for data collection and compilation*

OA North, 2003, *Barrow Harbour, Barrow-in-Furness, Cumbria, Desk Based Assessment*, unpubl rep

OA North, 2005, *Barrow Ports Regeneration Project, Archaeological Evaluation Report*, unpubl rep

SCAUM (Standing Conference of Archaeological Unit Managers), 1997, *Health and Safety Manual*, Poole

United Kingdom Institute for Conservation (UKIC), 1990, *Guidelines for the preparation of archives for long-term storage*, London

United Kingdom Institute for Conservation (UKIC), 1998, *First Aid for Finds*, London

APPENDIX 3: CONTEXT INDEX

Context	Interpretation	Description
01	Deposit	Modern mixed rubble and soil
02	Deposit	Clay and pebble layer. Same as 11 and 12
03	Building	Group number for brick foundations of nineteenth-century L-shaped buildings (06-08)
04	Lens within deposit	Charcoal-rich sandy lens. Same as 27
05	Deposit	Sand layer
06	Building	Brick foundations of north/south-aligned nineteenth-century terrace (northern portion)
07	Building	Brick foundations of east/west-aligned nineteenth-century terrace
08	Building	Brick foundations of north/south-aligned nineteenth century buildings (southern portion)
09	Topsoil	Very dark grey, friable, sandy silty clay. Same as 01
10	Subsoil	Mid-brownish-orange, fine, friable sandy clay
11	Layer	Mid-orange/grey, firm to compact, clay with more than 1% sub-rounded stone inclusions. Same as 02 and 12
12	Layer	Mid-reddish-grey firm to compact, clay with more than 1% sub-rounded stone inclusions; probably the same as 11 and 02
13	Layer	Mid-grey coarse sand, with bands of mid-brown red loose sand. Same as 04
14	Layer	Mid-range medium coarse sand with bands of mid- to dark grey sand. Wind-blown sand, probably clean, same as 05
15	Natural Geology	Mid-grey, coarse sand with more than 70% rounded stone and gravel inclusions. Same as 25 and 29
16	Layer/re-deposited subsoil	Mid-grey/brown loose, gravely sandy silt, with more than 50% stone and rubbish inclusions
17	Concrete	Light greyish-white degraded concrete
18	Surface	Tar Macadam
19	Layer	Mid-reddish-orange, firm sandstone
20	Layer	Dark orange/brown, firm sand with some small stone and pebble inclusions
21	Layer	Mid-yellowish-grey loose sand. Wind-blown sand with some small pockets of clay. Same as 02
22	Layer	Mid-pinkish-red, firm to compact clay, with some sandy pockets
23	Layer	Light-bluish-yellow, friable sand with no inclusions, but discoloured due to leaching
24	Layer	Mid-greyish-brown firm and friable sandy silt with iron panning, stone, and modern pottery inclusions. Same as 28
25	Natural Geology	Mid-reddish-grey firm clay sand with a large number of rounded stone and pebble inclusions. Same as 15 and 29
26	Building	Same as 03
27	Layer	Light orange/brown firm to friable silty sand, with reddish flecks of stone, charcoal, bone and modern pottery.
28	Layer	Mid- to light greyish-brown friable sandy silt, with small stone and charcoal inclusions
29	Layer/Natural Geology	Mid-reddish-brown, friable sandy silt. No inclusions. Possibly the same as 15 and 25
30	Deposit	Substantial dump of contaminated building debris

APPENDIX 4: FINDS SUMMARY

Context	OR No	Category	No frags	Description	Date
03	1000	Glass vessel	1	Crystal cut perfume bottle with stopper. 22mm diameter. 75mm height	Nineteenth century
03	1001	Building Material	1	Handmade frogged brick measuring 230mm x 110mm x 75mm. Dark red fabric, with lime mortar adhering to its surface	Nineteenth century
03	1002	Building Material	1	Handmade brick measuring 235mm x 110mm x 70mm. Orange fabric with grey ashy mortar adhering to its surface	Nineteenth century
03	1003	Building Material	1	Handmade brick measuring 235mm x 110mm x 70mm. Dark red fabric with grey ashy mortar adhering to its surface	Nineteenth century