



STANWIX PRIMARY SCHOOL, STANWIX, CARLISLE, CUMBRIA

Archaeological Evaluation



Oxford Archaeology North

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**Swarbrick Associates and
Stanwix Primary School**

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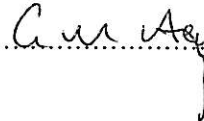
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SUMMARY

On the 29th of January 2008, Oxford Archaeology North (OA North) carried out an archaeological evaluation, on behalf of Swarbrick Associates and Stanwix Primary School, to the rear of Stanwix Primary School, Stanwix, Carlisle, Cumbria (NGR NY 4015 5715), in advance of the construction of a toilet block and paved waiting area. The school stands within the former Roman fort of Stanwix, a Scheduled Ancient Monument (SAM 28484), and reputed to be one of the largest forts along Hadrian's Wall.

Several phases of archaeological work have taken place in and around the primary school since the mid-twentieth century. Excavations were carried out by Simpson and Hogg in the early 1930s and a series of excavations, evaluations and watching briefs were undertaken by Carlisle Archaeological Unit (CAU) during the 1980s and 1990s. These archaeological works culminated in the location of various features in the interior and exterior of the Roman fort, including stone curtain walls, barracks, and the granary, as well as metalled and cobbled surfaces. Fragments of Hadrian's Wall, and the earlier Turf Wall, were also identified.

Two trenches were excavated during the present scheme of works: Trench 1 was located within the rear yard of the school, just south of the entrance to Mulcaster Crescent, and situated over the proposed toilet block. Trench 1 measured 1.5m square, reduced in size to avoid the modern services and drains identified across the area, and was excavated to 0.7m in depth, until natural geology, **103**, was encountered. The observed stratigraphy comprised tarmac and levelling deposits, **100**, redeposited subsoil, **101**, and disturbed natural, **102**. No finds or features dating to the Roman period were identified, and it was likely that the area had been heavily truncated during the recent construction of the classroom immediately to the south. Two small fragments of clay pipe bowl were recovered from the levelling material **100**, but were likely to have been residual within this recently redeposited material. A modern ceramic drain was identified running north-east/south-west across the trench; it was probably contemporary with the recent extension. It is likely that this part of the schoolyard has been heavily disturbed by recent groundworks, causing the truncation of archaeological deposits within the depth investigated. Thus, the proposed development is likely to have a negligible impact upon the archaeological resource, although potential for the preservation of islands of undisturbed archaeological stratigraphy elsewhere within the schoolyard must remain high.

Trench 2 was located within the flowerbeds to the rear of the school, adjacent to Mulcaster Crescent and situated over the proposed location for the paved waiting area. It was 1.3m x 1.5m, and was excavated to a depth of 0.6m to accommodate the 0.4m proposed depth of impact in this area. The stratigraphy solely comprised garden soil **104** and natural geology was not reached; several fragments of modern pottery were observed, but not retained. It is possible, like levelling material **100**, that the garden soil was brought in from elsewhere to raise the flowerbeds. If the proposed groundworks do not exceed the current pavement level they will have a minimal impact on this area.

ACKNOWLEDGEMENTS

Oxford Archaeology North (OA North) would like to thank Swarbrick Associates for commissioning the project, with specific thanks to David Irwin for his assistance during the fieldwork. Thanks are also extended to Stanwix Primary School for their patience and allowing the field staff to use their facilities, and for arranging access and the necessary legal checks.

The fieldwork was carried out by Kelly Clapperton with assistance from Annie Hamilton-Gibney. The report was written by Kelly Clapperton, the finds examined by Rebekah Pressler, and the illustrations produced by Marie Rowland. The project was managed by Jamie Quartermaine and Stephen Rowland, who also edited the report.

1 INTRODUCTION

1.1 CIRCUMSTANCES OF THE PROJECT

1.1.1 Stanwix Primary School proposes to extend existing facilities through the construction of a computer room with attached toilet block and paved area to the immediate north-east of recently-built classrooms. The school lies on Mulcaster Crescent, in the village of Stanwix, just to the north-east of Carlisle, Cumbria (NGR NY 4015 5715; Fig 1). The school is located to the north of the River Eden within the former area of Stanwix Roman fort, a Scheduled Ancient Monument (SAM 28484), an element of Hadrian's Wall and, as such, an area of high archaeological sensitivity. In respect of this, the extension was to use raft foundations, preserving any underlying archaeology, although there was the potential for services associated with the toilet block to impact upon buried archaeological remains. Accordingly, English Heritage (EH) requested that an evaluation should be undertaken within the area of the proposed toilet block in order to establish the presence of any archaeological deposits within the depth of impact from toilet services and to determine the margins of sensitivity for the foundations. Oxford Archaeology North (OA North) compiled a project design (*Appendix 1*) for such a scheme of works, which was approved by EH; Swarbrick Associates (architects to Stanwix Primary School) made an application to the Department of Culture, Media and Sport (DCMS) for Scheduled Monument Consent, allowing the intrusive archaeological investigation to take place. OA North were duly commissioned by Swarbrick Associates, on behalf of Stanwix Primary School, to undertake the programme of archaeological works on 29th January 2008.

1.2 LOCATION, TOPOGRAPHY AND GEOLOGY

1.2.1 The school is within Stanwix Village, which was within the former county of Cumberland, and has now been amalgamated into the hinterland of Carlisle's urban sprawl. The archaeological evaluation took place to the rear of the school, directly south of the Mulcaster Crescent entrance. The site lies at approximately 35m OD on a natural platform within an undulating glacial landscape, with steep descents on the western and southern sides to the floodplain of the River Eden and a flat plain to the north. The land slopes away to the east for approximately 450m, reaching a small knoll, known as Wall Knowe (Fig 1).

1.2.2 The solid geology of the area comprises red, grey and green mudstones and siltstones of the Mercia Mudstones Group. These include various mudstones and the Stanwix Shales, which all date to the Triassic Period (British Geological Society 1982). The overlying drift geology comprises glacial gravels and boulder clays (Countryside Commission 1998), while the soils are of the Clifton Association consisting of typical Stagnogleys (OS 1983), with fluvial deposits located along the margins of the River Eden. The evaluation took place within an area of tarmac surfacing and flowerbeds.

1.3 HISTORICAL AND ARCHAEOLOGICAL BACKGROUND

- 1.3.1 **Introduction:** the following section provides a general history of the salient features known to exist within and around the development site, together with a more detailed account of the archaeological interventions within and immediately around the site. The section concentrates on those remains dating of the Roman period, which have primary potential for preservation within the development area.
- 1.3.2 **Hadrian's Wall:** it is thought that Hadrian's Wall, running along the military way from Cumbria in the west to Northumberland in the east, was constructed between 122 and 126 AD, immediately after the Emperor Hadrian (117-138 AD) arrived in Britain (Margary 1973; Collingwood Bruce 1978). The western end of the Wall was initially constructed from turf, and later rebuilt in stone (Stevens 1966). Originally, the Hadrianic defence was to utilise an earlier line of forts (later known as the Stanegate, after the road along which the forts were situated), which lay to the south of, and separate from, the Wall itself, which was to be secured only by milecastles and turrets. However, in AD 124 it was decided that forts should be attached to the Wall, and twelve such installations were constructed for whole auxiliary units. Forts were located roughly every 12km astride the wall (Breeze and Dobson 2000), generally allowing points of egress from each of the three salient faces.
- 1.3.3 The Wall around Stanwix Fort has all but vanished, having been heavily robbed for stone (Smith 1978). However, remnants of Hadrian's Wall were traced into the school grounds during the excavations of the 1930s (Simpson and Hogg 1935), and was recorded as being 2.7m wide. Excavations undertaken in the 1960s by Hogg located parts of the Wall, and a ditch terminal in the centre of Scotland Road (cited in Dacre 1985).
- 1.3.4 **Stanwix Roman Fort:** the fort, identified as *Uxelodunum* (Daniels 1989), meaning 'high place', covered an area of 9.79 acres, and was designed to hold a 1000-strong cavalry unit (Dacre 1985). The mound of the fort's rampart is the only part still visible as an earthwork in Stanwix Churchyard (Daniels 1989). The fort was the seat of the senior commanding officer of the Wall, and served as the main base for aggressive action against the tribes to the north, a role facilitated by its strategic location on the main western route to and from Scotland, guarding one of the main crossing points over the River Eden (located near the current bridge). Certainly by the late fourth century, the *Notitia Dignitatum* indicates that the fort was garrisoned by the *Ala Petriana* (RomanBritain.org 2005), the only regiment of this size and prestige on the Wall, and probably the senior auxiliary regiment of the Roman army in Britain (Daniels 1989). Although there is no direct epigraphic evidence for this unit, the tombstone of a cavalryman was discovered in the wall of the old parish church in the late eighteenth century, whilst bronze mountings and brooches for uniforms and horse harnesses were discovered in excavations to the south of the fort in 1934 (*ibid*). These artefacts probably date to the mid-second century AD and are thought to have been washed down slope from a bronze-founders workshop in the fort grounds (*ibid*).

- 1.3.5 ***The external defences:*** the first excavations within the area of the fort were undertaken in the 1930s by Hogg, Simpson and Richmond in advance of the widening of Scotland Road, and the creation of a carpark bounded by Church Terrace, Church Street and Scotland Road, to the south-west of the present development site. A trench opened across the area did not reveal any archaeological features, although occupation soils, from which Roman pottery was recovered, and a fragment of inscribed stone, dating to 167 AD, was discovered below the floor of a building (Simpson 1932). Further excavation established the positions of the fort's south gate and the south-west angle tower, while the south and east walls were excavated in the 1940s, also by Hogg and Simpson (Daniels 1989).
- 1.3.6 Subsequent excavations did not take place until the 1980s, when Carlisle Archaeological Unit (CAU) undertook excavations in the car-park of the Cumbria Park Hotel, to the immediate north of the school's playground. The excavation located the stone footings of the north-western wall, and an interval tower. Together with a rampart to the south and two ditches, they were likely to be contemporary in date (Frere 1985; Dacre 1985; McCarthy 1999). The discovery of cobbles and gravel layers post-dating the wall, and a possible Roman oven along the back wall of the tower, demonstrated that the fort had been expanded northwards during the Antonine period (138-161 AD). Such an interpretation was at odds with the traditionally held belief that Hadrian's Wall formed the northern limit of the fort throughout its occupation (Dacre 1985; Smith 1978). An earlier large ditch was also identified under the interval tower, and is associated with Hadrian's Wall (Esmonde Cleary 1998; McCarthy 1999).
- 1.3.7 A further evaluation was undertaken at the Cumbria Park Hotel by CAU in 1998. This revealed the existence of the wall of the fort, along with collapse and demolition deposits, which had been truncated by postholes that produced pottery dating to the medieval period (CAU 1998). A subsequent evaluation at the same location was carried out the following year by CAU, which located the north wall of the fort and various associated features, all situated at a depth of 0.3m below the current ground level. The wall had been heavily robbed, although part of the internal rampart survived and extended for a distance of 3m behind the wall. To the rear of the rampart a metalled surface was observed, and may represent an intervallum road, whilst on the opposite side of the rampart, the north-eastern lip of the primary fort ditch was also located (CAU 1999; Burnham 2000). A watching brief carried out in 2000 by Carlisle Archaeology Limited (CAL), in advance of an expansion of the Cumbria Park Hotel carpark, traced parts of the heavily-disturbed northern defences, comprising the foundations of the stone curtain wall and a denuded internal rampart. A cobbled surface was observed between the curtain wall and inner ditch, on the berm, and an outer defensive ditch, as well as metalled surfaces within the fort (CAL 2001).
- 1.3.8 In 2000 Lancaster University Archaeological Unit (LUAU) undertook an evaluation in the walled garden to the east of the current Cumbria Institute of the Arts. A V-shaped ditch was identified, running north/south parallel to the eastern side of the fort. The ditch appeared to have been in use only for a short

period, and produced few diagnostic finds; it has been tentatively suggested that the ditch pre-dated the main fort, perhaps being part of a military temporary camp (LUAU 2000).

- 1.3.9 **Internal Layout:** very little is known about the internal layout of the fort, although it is thought that the headquarters faced east (Daniels 1989). Metalled surfaces were identified in the school grounds, and were dated to the second-century AD (Simpson 1933; Simpson and Hogg 1935). They were superseded by possible barracks and stables that dated between 305 and 367 AD (*ibid*). In 1939 a granary, orientated east/west, was located extending into the school grounds, while the stone foundations for other buildings were observed to the north and south of the granary (Daniels 1989; Esmonde Cleary 1998). Very little work took place in the area until the 1990s, although a watching brief in 1976 demonstrated that the Roman layers had been levelled to the rear of the Crown and Thistle public house (Frere 1977). Excavations undertaken in 1993 by CAU in Barn Close revealed two phases of walls and surfaces that produced pottery and coins dating to the fourth century AD (Esmonde Cleary 1994; McCarthy 1999).
- 1.3.10 In 1997 evaluation work was undertaken by CAU in the grounds of the primary school (CAU 1997; Esmonde Cleary 1998; McCarthy 1999). Although minimal excavation took place and only the uppermost Roman deposits were investigated, the work identified the drains and walls relating to the granary located in the 1930s, together with metalled yard or road surfaces. These surfaces were post-dated by a number of features, including cuts and postholes, together with several clay-floored timber buildings no earlier in date than the mid-fourth century (Esmonde Cleary 1998; McCarthy 1999). In the lower playground a layer of turves, sealed by later Roman deposits, was identified in the section of a nineteenth-century drain cut. They were either the result of an earlier turf-and-timber fort, or the remains of the Turf pre-cursor to the stone-built Hadrian's Wall (CAU 1997; Esmonde Cleary 1998; McCarthy 1999). The feature had been overlain by layers of compacted pebbles, and was truncated by several robber trenches associated with the fort (CAU 1997; McCarthy 1999).
- 1.3.11 In 1998 further excavation work was carried out at the school by CAU, in advance of building extensions. Roman fort deposits were uncovered, but the restricted extent of the site meant that interpretation was difficult. Deposits comprised rubble dumps sealed by a metalled surface, which in-turn pre-dated a stone wall associated with a building in the western area of the fort (CAU 1998).
- 1.3.12 Excavations undertaken by CAU in 1999 exposed extensive deposits within the central area of the fort, which were left *in situ*, in line with English Heritage policy. Although these deposits had been heavily truncated, an area of cobbled surface was identified, as well as several phases of timber and stone buildings, which cut through various external deposits (CAL 2000). These various phases of construction work culminated in what has been interpreted as a hospital. The area was razed towards the end of the Roman period and a layer of dark soil accumulated over the remains (*ibid*). Significantly, a large post-built timber structure was erected over the site,

respecting the basic Roman layout, and dating either to the very late Roman period, or the post-Roman period. It has been compared to the post-Roman building identified at Birdoswald (Burnham 2000; OA North 2004). The site was then sealed by medieval garden soils (CAL 2000).

- 1.3.13 During 1999 and 2000 a series of watching briefs was undertaken at the primary school by CAU. A watching brief in 1999 was carried out during the demolition of the boiler house and the excavation of a foundation trench for a boundary wall. It revealed very few remains, much of the site having been disturbed by the groundworks for the initial establishment of the school. A cobbled surface, and other deposits that were not closely datable, were observed beneath the boiler house, whilst stratigraphy within the foundation trench comprised modern deposits down to natural geology (OA North 2004). Further groundworks undertaken in 2000 necessitated another watching brief by CAU, however, no archaeological deposits were identified (OA North 2004).
- 1.3.14 In 2004 OA North undertook a small evaluation in advance of a classroom extension to the east of the main school building. The remains of a truncated, cobbled surface was observed, which most likely dated to the second-century AD, in line with similar remains discovered in the 1930s (OA North 2004). A V-shaped ditch was also located. This proved to be more problematic to date, producing only one sherd of medieval pottery, and fragments of undatable tile and brick. Except for potential early post-Roman remains encountered in 1997 (CAU 1997), there has been little medieval activity recorded in the area. It was suggested that the pottery was intrusive, and the ditch was originally part of the Roman fort complex.

2 METHODOLOGY

2.1 INTRODUCTION

2.1.1 Where possible, the EH-approved OA North project design (*Appendix 1*) was adhered to in full, and the work was consistent with the relevant standards and procedures of the Institute of Field Archaeologists, and generally accepted best practice. There were two principal diversions from the project design, both of which were undertaken with the verbal agreement of EH. Firstly, Trench 1, which was supposed to measure 3m by 1m, was excavated to dimensions of 1.5m square, in order to accommodate the constraints of surrounding services. Secondly, an additional intervention, Trench 2, was excavated within a flower bed, 15m to the north of Trench 1 (Fig 2).

2.2 FIELDWORK

2.2.1 Two trenches were excavated to the rear of Stanwix Primary School (Fig 2). Trench 1 was located within an area of tarmac directly to the south of the Mulcaster Crescent entrance, while Trench 2 was situated within the rear garden of the school, directly adjacent to the entrance. Both trenches were excavated in a similar manner. The upper modern deposits of tarmac, overburden and garden soil were removed by a 3 tonne 360° mini-digger operating under archaeological supervision. The machine utilised a 0.5m toothed bucket for the lifting of tarmac, but was otherwise fitted with a 1.3m toothless ditching bucket. Subsequent excavation was by hand, using hoes and trowels. Trench 1 was excavated to a depth of 0.7m, Trench 2 to 0.6m, allowing for the depth of development impact, plus a 0.2m buffer zone.

2.2.2 The results of the evaluation were recorded on OA North *pro-forma* context sheets, trench records and indices, whilst plans and sections were drawn to appropriate scales on permatrace. An indexed photographic archive was compiled, comprising monochrome prints and colour-slides, with digital photographs taken for presentation purposes.

2.3 FINDS

2.3.1 All non-modern finds from stratified deposits were exposed, lifted, cleaned and bagged in accordance with the United Kingdom Institute for Conservation (UKIC) *First Aid for Finds*, 1998 (new edition).

2.4 ARCHIVE

2.4.1 A full and professional archive has been compiled in accordance with the project design (*Appendix 1*), and with current IFA and EH guidelines (EH 1991). The archive will be deposited in the County Record Office in Carlisle, and copies of the report will be sent to the client, to EH, and the Cumbria County Council Historic Environment Record in Kendal.

3 FIELDWORK RESULTS

3.1 FIELDWORK

- 3.1.1 **Introduction:** the following is a summary description of the stratigraphy recorded within each of the two evaluation trenches; detailed context descriptions are presented in *Appendix 2*.
- 3.1.2 **Trench 1:** Trench 1 measured 1.5m square and up to 0.7m deep, placed in such a way as to investigate the area of the toilet block within the constraints provided by a network of existing services (Fig 2). The stratigraphy within the trench comprised a tarmac surface and levelling material, **100**, to a depth of 0.34m (Plates 1 and 2). This sealed a re-deposited subsoil layer (0.22m thick), **101**, which in turn overlay a deposit of disturbed natural (0.3m thick), **102**. This layer sealed the natural geology, **103**. Layers **100** to **102** contained significant quantities of modern building rubble, including brick, mortar and concrete. Cutting through subsoil **101**, disturbed natural **102** and natural geology **103**, was a modern ceramic drain, aligned north-east/south-west across the trench. No finds pre-dating the post-medieval period were observed. Two small fragments of clay pipe bowl were recovered from the levelling layer, **100**, as well as one fragment of modern pottery, indicating the late date and mixed origin of this material, which in any case is likely to have been imported onto site from elsewhere.
- 3.1.3 **Trench 2:** Trench 2 measured 1.8m east/west by 1.3m, and was excavated to a depth of 0.6m. The observed stratigraphy wholly comprised garden soil, **104**, which extended below the depth of investigation and of the likely development impact. Several small fragments of modern pottery were observed but not retained.

3.2 FINDS

- 3.2.1 Two small fragments of the same clay pipe bowl were recovered from the levelling deposit, **100**, which made up much of the overburden of Trench 1. Although they are not directly comparable to other recorded clay pipes, the general morphology of the sherds indicates that they most likely dated to the late nineteenth-century (Ayto 1987). These fragments, however, derive from a deposit that probably originated from elsewhere, and they do not provide any further information on the site.

4 DISCUSSION AND IMPACT

4.1 DISCUSSION

- 4.1.1 The stratigraphy recorded within Trench 1 would indicate that the immediate area is likely to have been heavily truncated, down to natural geology (at a depth of 0.7m). This disturbance is most likely to have been a result of the groundworks for the recently-constructed extension immediately to the south, with which the observed ceramic drain is probably contemporary. No residual Roman pottery was observed in any of the deposits, whilst the identified finds were either modern or likely to have been imported within levelling material.
- 4.1.2 The observed stratigraphy within Trench 2 was limited to a single layer of garden soil, **104**. The absence of residual Roman material from this layer suggested that it had not derived from the disturbance of on-site deposits, but instead may be largely imported.

4.2 IMPACT

- 4.2.1 Based on the results of the evaluation of Trench 1, it would appear that installation of the toilet block would have little impact on the archaeological resource, since any remains in the immediate area would seem to have been truncated previously. Although this disturbance is likely to relate to recent construction works on the site and associated services, the extent of this truncation cannot be established through the limited scale of the present scheme of evaluation. Thus, the impact of any groundworks associated with tying-in the toilet block services with the existing network cannot be accurately assessed; however, if these works can be limited to known, existing, services, then it is likely that the impact will be similarly minimal. The construction of the computer room on a raft foundation should limit (although not completely negate) impact upon the archaeological resource and, whilst this area could well have been truncated by works associated with the adjacent class rooms, this cannot be proved on the basis of the present scheme of evaluation.
- 4.2.2 The proposed location of the paved waiting area, on the site of the current garden (Trench 2), will be within an area that has been built up for the flowerbed, and as long as none of the proposed groundworks exceed the level of the current pavement to the west of the site (*c* 0.4m below ground level within the present flowerbed), then minimal impact is predicted.

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6 ILLUSTRATIONS

6.1 FIGURES

Figure 1: Site location plan

Figure 2: Trench location plan, with inset of Trench 1 and east-facing section

6.2 PLATES

Plate 1: Trench 1 looking south

Plate 2: Trench 1, east-facing section

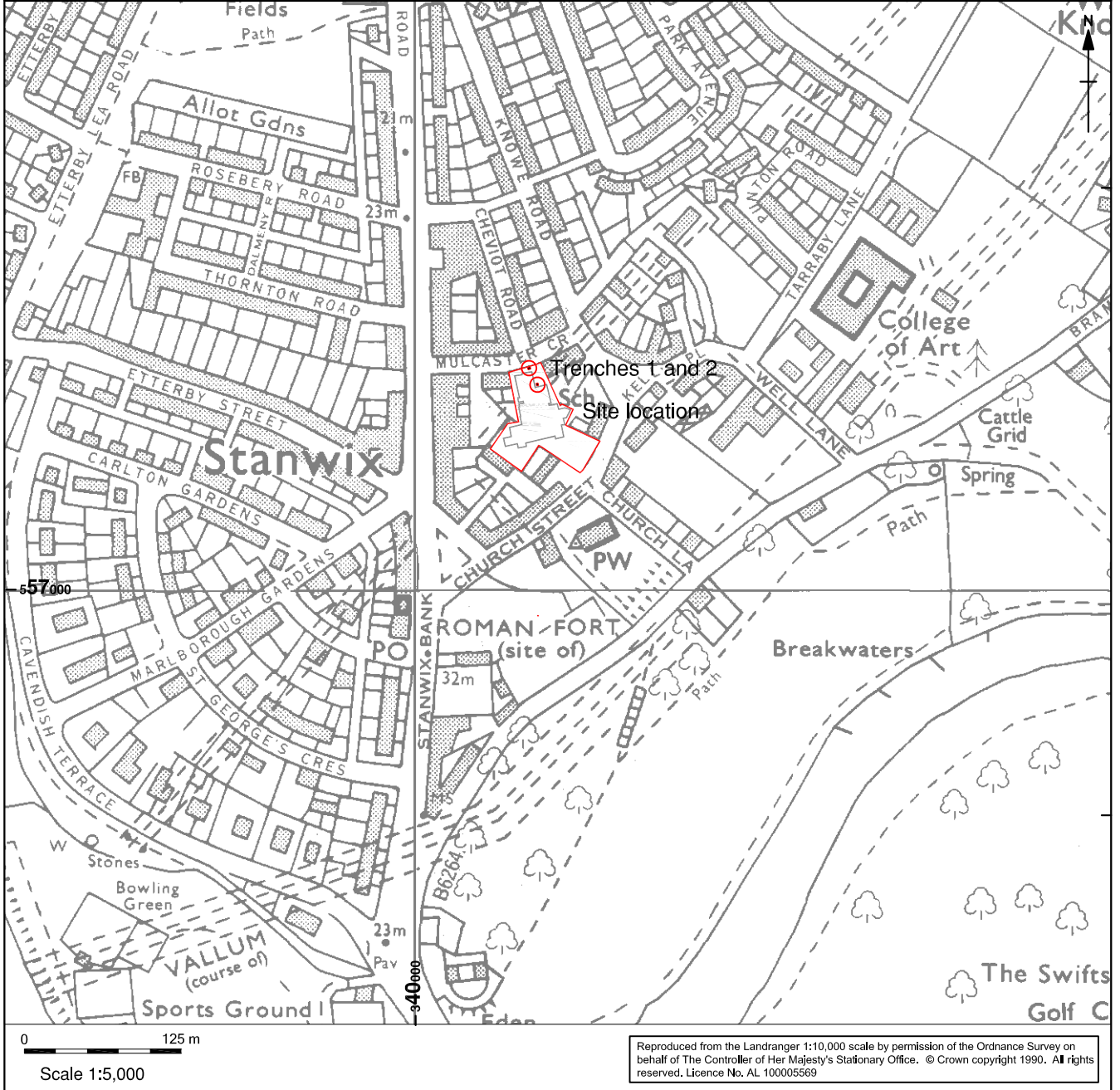
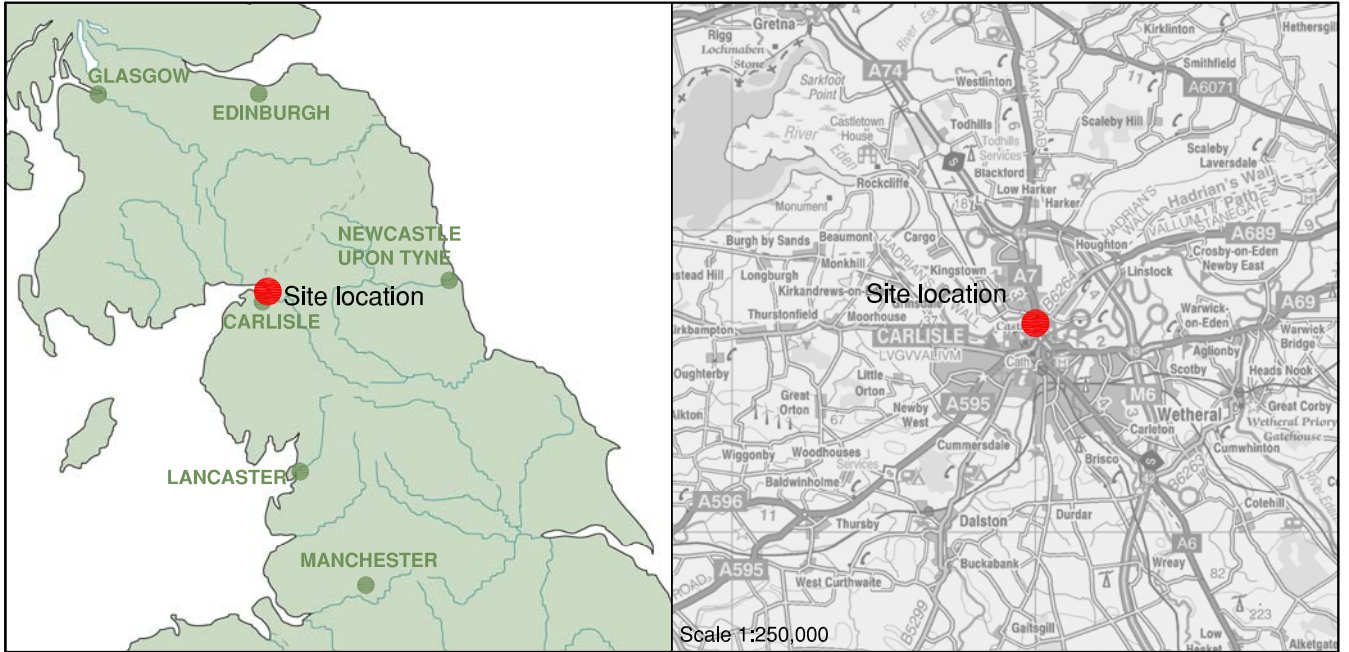


Figure 1: Site location

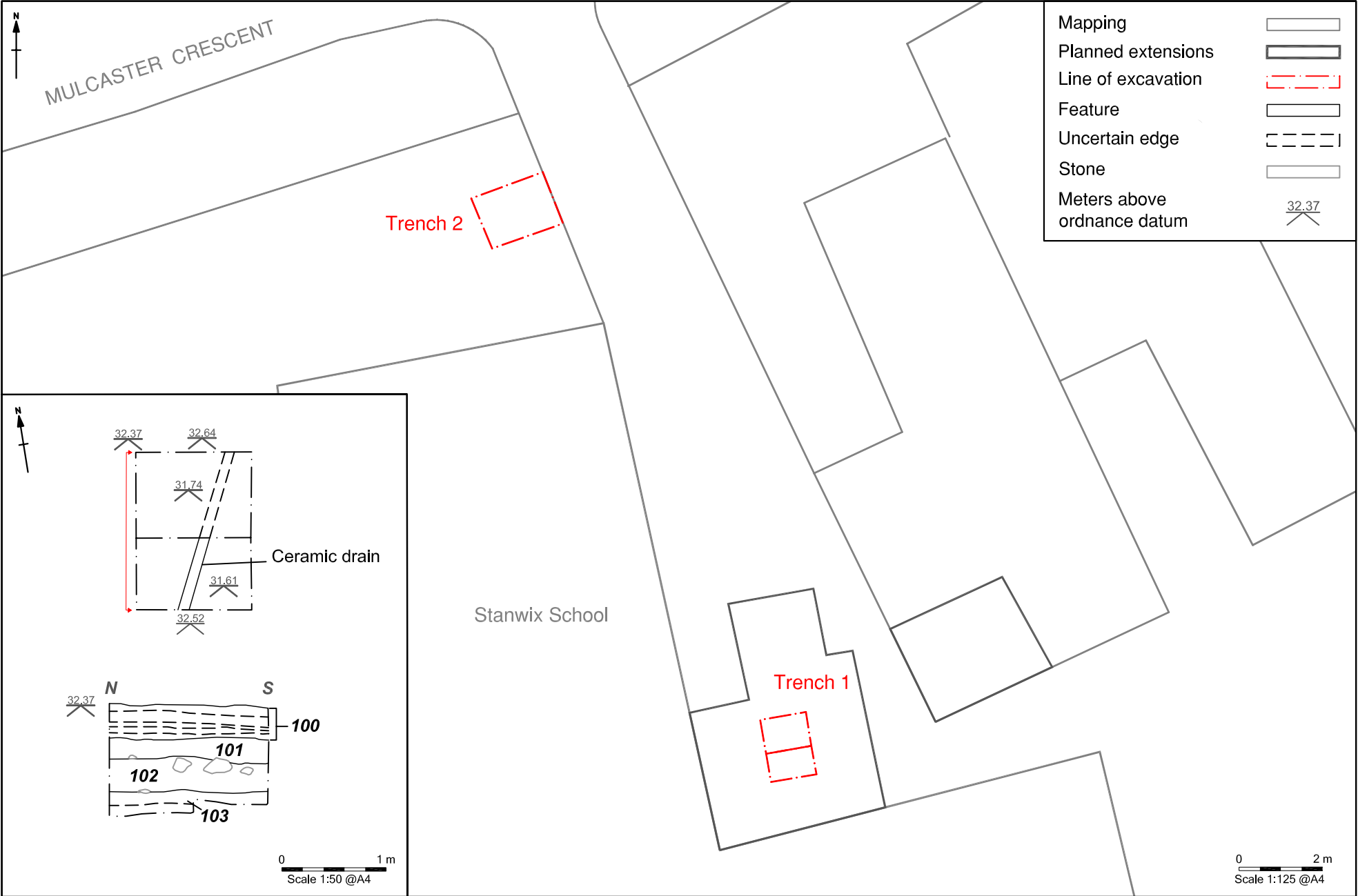


Figure 2: Trench location plan, with inset of Trench 1 and east-facing section



Plate 1: Trench 1 looking south



Plate 2: Trench 1, east-facing section

APPENDIX 1: PROJECT DESIGN

December 2007

Oxford
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STANWIX SCHOOL,
STANWIX,
CARLISLE

ARCHAEOLOGICAL EVALUATION PROJECT DESIGN

Proposals

The following project design is offered in response to a request from David Irwin of Swarbrick Associates, for an archaeological investigation at Stanwix School, Carlisle.

1.1 CONTRACT BACKGROUND

- 1.1.1 Swarbrick Associates, on behalf of Stanwix School, has requested that Oxford Archaeology North submit a project design for an archaeological evaluation in advance of the construction of a small extension to the school. The area is within the extent of the Stanwix fort and to date no archaeological work has been undertaken in this area. Although it is proposed that the new build will have raft foundations, and therefore will in theory preserve the underlying archaeological deposits, there is a need for an evaluation to establish the depth of these deposits and determine the margins of sensitivity for the foundations.

1.2 Archaeological Background

- 1.2.1 *Stanwix Fort*: excavations of the fort at Stanwix in the 1930s by Simpson, Hogg and Richmond established the positions of the south gate, and the defences on the north-eastern, south-eastern and south-western sides. Internal buildings, including a granary, were located in the playground of Stanwix Primary School (Simpson and Hogg 1935). In the 1980s, an excavation in the car park of the Cumbria Park Hotel, immediately north of the school playground, located the stone footings of the north-western fort wall and an interval tower, together with two ditches beyond (McCarthy 1999). This demonstrated that the fort had been enlarged in the Antonine period, projecting it north of Hadrian's Wall. The other key discovery was that of a ditch underlying the interval tower, which was clearly earlier than the enlargement of the fort and was presumed to be associated with Hadrian's Wall, the foundations of which had been discovered by Simpson and Hogg in 1932-4 (Simpson and Hogg 1935; McCarthy 1999, 163).
- 1.2.2 In 1997, Carlisle Archaeological Unit (CAU) carried out further work in the playground of the Primary School, in advance of the construction of an extension to the school (McCarthy 1999, 164). The earliest identifiable feature consisted of a turf deposit, overlain by a substantial deposit of clay; this turf deposit was either part of a rampart or perhaps evidence of the Turf Wall that predates the stone version of Hadrian's Wall to the west of the River Irthing. There were no obvious front or rear faces to this turf deposit, but it was located some metres south of the stone Hadrian's Wall discovered in the 1930s (Simpson and Hogg 1935). The walls located by Simpson and Hogg were not found, but stone and cobbled surfaces and rubble deposits were identified and were presumed to have belonged with the walls found in the 1930s. Timber buildings erected after the deposition of Huntcliff ware in the fourth century were also discovered (McCarthy 1999).
- 1.2.3 In 1997 and 1998, CAU dug two further trenches in a narrow passage immediately adjacent to the north-western side of the Victorian school, locating the inner ditch and the stone footings of the fort wall (McCarthy 1999). Other work in Stanwix in 1993 revealed two phases of walls and surfaces (CAU 1993).
- 1.2.4 In 1999 CAU undertook a further excavation, in the area of the proposed school extension, which revealed multiple phases of activity on the site within a relatively shallow deposit. The earliest deposits was an area of cobbling (Phase 1), cut by the beam slots of one timber building (Phase 2a), closely followed by those of a succeeding timber structure (Phase 2b). These timber buildings were replaced by one in stone (Phase 3), which were then subsequently remodelled (Phase 4). The site was then abandoned, and the site was stripped down to foundation level, which probably occurred in the late Roman period (Phase 5) and there was a subsequent accumulation of dark soils (Phase 6). Into these soils was set a large two phased timber building with 25 post holes (Phase 7), believed to be of early medieval date. This was then overlain by medieval garden soils (Phase 8) and then the construction of the Victorian Stanwix school (Phase 9) (CAU 2000).

1.3 OXFORD ARCHAEOLOGY

- 1.3.1 Oxford Archaeology has over 30 years of experience in professional archaeology, and can provide a professional and cost-effective service. We are the largest employer of archaeologists in the country (we currently have more than 200 members of staff) and can thus deploy considerable resources with extensive experience to deal with any archaeological obligations you or your clients may have. We have offices in Lancaster and Oxford, trading as Oxford

Archaeology North (OA North), and Oxford Archaeology (OA) respectively, enabling us to provide a truly nationwide service. OA is an Institute of Field Archaeologists Registered Organisation (No 17), and is thus bound by the IFA's Code of Conduct and required to apply the IFA's quality standards.

- 1.3.2 Between our two offices our company has unrivalled experience of working on sites of all periods, and is recognised as one of the leading archaeological units in the country with regard to dealing with large-scale archaeological projects. OA North has considerable experience of the assessment, evaluation and excavation of sites of all periods, and has particular experience of archaeology in the North West having undertaken in recent years excavation, survey, building recording and post-excavation projects in both urban and rural environments. Watching briefs, evaluations and excavations have taken place within the planning process, to fulfil the requirements of clients and planning authorities, to very rigorous timetables. In particular OA North has been involved in the archaeological evaluation and investigations at the Cumbria Institute of the Arts, since 2000, and has considerable experience of working on Hadrianic Wall sites.

2.1 AIMS

- 2.1.1 The principal aim is to evaluate the site to establish if the archaeology identified in the area by the 1999 programme of archaeological works has survived the subsequent development works on the site. The trench will establish the character, depth and period of any surviving stratigraphy and will inform the need for further mitigation works, including the potential for preservation in situ. A stratigraphic record of features and deposits will be made with a view to furthering our understanding of the Stanwix fort, the associated wall fortifications and any post-Roman activity on the site.
- 2.1.2 An archive for the project to the specification provided in *Appendices 3 and 6* of English Heritage's *Management of Archaeological Projects, 2nd edition* (MAP2), prepared during the excavation programme, and supplemented as necessary during any phase of analysis, will be prepared to professional standards for deposition in an appropriate repository.

3. METHOD STATEMENT

3.1 EVALUATION TRENCHING

- 3.1.1 **Trial Trenching:** the evaluation will entail the excavation of a single trench (2m x 2m) within the centre of the footprint of the proposed toilet block for the proposed staffroom extension. The excavation will be undertaken with the use of a mini-digger, using a toothless bucket, which will be used to excavate through the tarmac.
- 3.1.2 Following the removal of overburden the floor of the trench will be cleaned by hoe and manual excavation techniques will be used to evaluate any sensitive deposits; this will enable an assessment of the nature, date, survival and depth of deposits and features. The trenches will not be excavated deeper than 1.25m to accommodate health and safety constraints; any requirements to excavate below this depth will involve recosting. Spoil will be deposited adjacent to the trench in the limited areas available to the north of the proposed trench.
- 3.1.3 All features will be sample excavated and would entail the excavation of 50% of discrete features and 25% of linear features. Following manual excavation the floor and the sides of the trenches that require examination will be cleaned by hoe and trowel. All trenches will be excavated in a stratigraphical manner.
- 3.1.4 Trenches will be located by total station and archaeological features within the trenches will be planned by manual techniques.

- 3.1.5 **Environmental Sampling:** environmental samples (bulk samples of 30 litres volume, to be sub-sampled at a later stage) will be collected from stratified undisturbed deposits and will particularly target negative features (gullies, pits and ditches). An assessment of any environmental samples will be undertaken by the in-house palaeoecological specialist, following discussions and agreement from English Heritage's Advisor in Archaeological Sciences, and will examine the potential for further analysis. The assessment would examine the potential for macrofossil, arthropod, palynological and general biological analysis. The costs for the palaeoecological assessment are incorporated within the fixed price costs.
- 3.1.6 Samples will also be collected for technological, pedological and chronological analysis as appropriate. If necessary, access to conservation advice and facilities can be made available. OA North maintains close relationships with staff at the Universities of Durham and York and, in addition, employs artefact and palaeozoological specialists with considerable expertise in the investigation, excavation and finds management of sites of all periods and types, who are readily available for consultation.
- 3.1.7 **Finds:** finds recovery and sampling programmes will be in accordance with best practice (current IFA guidelines) and subject to expert advice. All material will be collected and identified by stratigraphic unit. Hand collection by stratigraphic unit will be the principal method of collection. The location of findspots for objects deemed to be of potential significance to the understanding, interpretation and dating of individual features, or of the site as a whole, will be recorded in 3-D. All finds will be treated in accordance with OA North standard practice, which is cognisant of IFA and UKIC Guidelines. In general this will mean that (where appropriate or safe to do so) finds are washed, dried, marked, bagged and packed in stable conditions; no attempt at conservation will be made unless special circumstances require prompt action. In such case guidance will be sought from conservator Jennifer Jones at Durham University. Finds storage during fieldwork and any site archive preparation will follow professional guidelines (UKIC).
- 3.1.8 **Recording:** all information identified in the course of the site works will be recorded stratigraphically, with sufficient pictorial record (plans, sections and both black and white and colour photographs) to identify and illustrate individual features. Primary records will be available for inspection at all times.
- 3.1.9 Results of the field investigation will be recorded using a paper system, adapted from that used by Centre for Archaeology of English Heritage. The archive will include both a photographic record and accurate large scale plans and sections at an appropriate scale (1:50, 1:20, and 1:10). All artefacts and ecofacts will be recorded using the same system, and will be handled and stored according to standard practice (following current Institute of Field Archaeologists guidelines) in order to minimise deterioration. Where stratified deposits are encountered a 'Harris' matrix will be compiled.

3.2 REPORT

- 3.2.1 **Archive:** the results of the fieldwork will form the basis of a full archive to professional standards, in accordance with current English Heritage guidelines (*The Management of Archaeological Projects*, 2nd edition, 1991). 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. A copy of the archive can also be made available for deposition with the National Archaeological Record. OA North practice is to deposit the original record archive of projects (paper, magnetic and plastic media) with the appropriate County Record Office, and a full copy of the record archive (microform or microfiche) together with the material archive (artefacts, ecofacts, and samples) with an appropriate museum.
- 3.2.2 **Report:** one bound and one unbound copy of a written synthetic report will be submitted to the Client, and further copies will be submitted to English Heritage and the Cumbria County Council SMR. The report will include a copy of this project design, and indications of any

agreed departure from that design. It will present, summarise, and interpret the results of the programme detailed above and present an assessment of the sites history; the report will include photographs of any significant features. The report will also include a complete bibliography of sources from which data has been derived, and a list of further sources identified during the programme of work, but not examined in detail. The report will include a description of the methodology and the results. A list of the finds, and a description of the collective assemblage. Details of any environmental work undertaken will be included.

- 3.2.3 The report will have a summary and a methodological statement, and it will define any variations to the defined programme. It will include recommendations for further work. Illustrative material will include a location map, site map, historic maps, a trench location map, trench plans, survey plans and also pertinent photographs. The site plans will be at accepted scales (eg 1:10, 1:20, 1:50, 1:100, 1:250, 1:500 etc).

3.3 OTHER MATTERS

- 3.3.1 **Health and Safety:** OA North conforms to all health and safety guidelines as contained in the OA Manual of Health and Safety and the safety manual compiled by the Standing Conference of Archaeological Unit Managers. The work will be in accordance with Health and Safety at Work Act (1974), the Council for British Archaeology Handbook No. 6, *Safety in Archaeological Fieldwork* (1989).
- 3.3.2 Full regard will, of course, be given to all constraints (services etc) during the evaluation, as well as to all Health and Safety considerations. OA North provides a Health and Safety Statement for all projects and maintains a Unit Safety policy. A risk assessment will be completed in advance of the project's commencement. If there is a requirement to excavate trenches deeper than 1.25m the trenches will need to be shored as there is not the available room to step out the trenches. This would necessitate a variation to the costs. As a matter of course the Unit uses a U-Scan device prior to any excavation to test for services, but it is assumed that the client will provide any available information regarding services within the study area, if available.
- 3.3.3 Given the very limited area available for excavation, the area will need to be closed off to all persons with the exception of the excavation staff in order to ensure their safety. The door extending out from the school building into the area of the proposed excavation is a fire door, and consequently alternative arrangements will need to be made to ensure that alternative fire exits are available and are adequately signed. There will be no access to the sheds for school staff during the excavation because of the risk of falling in the open trench which will be directly in front of the school door.
- 3.3.4 There is only very restricted access to the area of the development, but these will need to be closed off by means of fence panels to prevent school children gaining access to the site.
- 3.3.5 **Reinstatement:** the site will need to be reinstated following the excavation and this will be the responsibility of the client.
- 3.3.6 **Insurance:** the insurance in respect of claims for personal injury to or the death of any person under a contract of service with the unit and arising out of an in the course of such person's employment shall comply with the employers' liability (Compulsory Insurance) Act 1969 and any statutory orders made there under. OA North has professional indemnity to a value of £2,000,000, employer's liability cover to a value of £10,000,000 and public liability to a value of £15,000,000. Written details of insurance cover can be provided if required.
- 3.3.7 **Working Hours:** normal OA North working hours are between 9.00 am and 5.00 pm, Monday to Friday, though adjustments to hours may be made to maximise daylight working time in winter and to meet travel requirements. It is not normal practice for OA North staff to be asked to work weekends or bank holidays and should the client require such time to be worked during the course of a project a contract variation to cover additional costs will be necessary.

- 3.3.8 **Confidentiality:** the report is designed as a document for the specific use of the Client, for the particular purpose as defined in the project design, and should be treated as such; it is not suitable for publication as an academic report, or otherwise, without amendment or revision. Any requirement to revise or reorder the material for submission or presentation to third parties beyond the project brief and project design, or for any other explicit purpose can be fulfilled, but will require separate discussion and funding.
- 3.3.9 **Project Monitoring:** OA North will consult with the client regarding access to the site. Whilst the work is undertaken for the client, the English Heritage inspector will be kept fully informed of the work and its results. Any proposed changes to the project design will be agreed with the English Heritage Inspector in consultation with the Client.

4. WORK PROGRAMME

- 4.1 The following programme is proposed:

Evaluation Trenching: two days will be required to complete this element

Report: a ten day period would be required to complete this element

- 4.2 OA North can execute projects at short notice once an agreement has been signed with the client.
- 4.3 The project will be managed by **Jamie Quartermaine BA Surv Dip MIFA** (Unit Project Manager) to whom all correspondence should be addressed. OA North adheres by the IFA's Code of Conduct and the Code of Approved Practice for the regulation of Contractual Arrangements in Field Archaeology.
- 4.4 The processing and assessment of the palaeoenvironmental samples will be carried out by **Elizabeth Huckerby BA, MSc** (OA North Project Officer), who has extensive experience of the palaeoecology of the North West, having been one of the principal palaeoenvironmentalists in the English Heritage-funded North West Wetlands Survey. Assessment of any finds from the excavation will be undertaken by OA North's in-house finds specialist **Chris Howard-Davis, BA, MIFA**.

5 BIBLIOGRAPHY

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APPENDIX 2: CONTEXT REGISTER

Context	Trench	Description
100	1	<p>Levelling deposit; 0.24m thick</p> <p>Banded and mixed layers of black, orange and grey, loose and coarse sandy gravel with >50% small to medium sub-angular hardcore chippings. A fragment of modern pottery was observed but not retained, two fragments of clay pipe were recovered. Material used to level the site before laying the tarmac.</p>
101	1	<p>Re-deposited subsoil; 0.22m thick</p> <p>Mid-brown, friable sandy silt with >10% small-large sub-rounded pebble inclusions, and >5% modern brick, concrete, mortar and other demolition debris. No finds were observed. Most likely re-deposited following groundworks in the area associated with the extension built in the early twenty-first century.</p>
102	1	<p>Disturbed natural; 0.3m thick</p> <p>Mid-grey/orange, soft and friable sand with <2% CBM, stone building material, mortar and concrete flecks throughout. No finds were observed. A disturbed natural deposit, possibly re-deposited, associated with the construction of the extension to the south in the early twenty-first century.</p>
103	1	<p>Natural geology</p> <p>Grey/orange banding consisting of fine and soft sand. Water- or glacial-borne deposits.</p>
104	2	<p>Garden soil; >0.6m thick</p> <p>Dark grey/brown, friable sandy silt with <5% small-medium sub-rounded pebble inclusions. Fragments of modern pottery were observed but not retained. Garden soil within the garden to the rear of the school. It is likely that it has been brought in from elsewhere to raise the beds, and extends beyond the pavement level.</p>