



WASHINGTON SQUARE, WORKINGTON, CUMBRIA

Archaeological Evaluation Report



Oxford Archaeology North

**Thomas Armstrong
(Construction) Ltd**

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SUMMARY

Oxford Archaeology North (OA North) was commissioned by Thomas Armstrong (Construction) Ltd on behalf of Harrison Developments Ltd to undertake a programme of archaeological work at Washington Square, Workington, Cumbria (NGR NY 0039 2862) prior to re-development (planning reference: 02/02/1038). The proposals involved demolition and redevelopment of the St John's Shopping Precinct and surrounding buildings. The archaeological investigation required a programme of evaluation trenching, following the results from a desk-based assessment undertaken in December 2002 (OA North 2002) wherein areas of moderate or high archaeological potential were identified as covering mainly the north-east quarter of the development site. Consequently, Cumbria County Historic Environment Service (CCCHES) requested that these areas should be targeted with trenching to assess the survival of archaeological remains.

Due to the development programme, the evaluation trenching was carried out in numerous phases. The first phase was undertaken in October 2003 on the site of the demolished Presbyterian Church, and consisted of one trench (Trench A); the results of which were issued in the first interim report (OA North 2004). For the remainder of the site with an identified archaeological potential, a 5% trenching sample was required, equating to 15 trenches. This would be divided between a second and third phase of trenching, dictated by the demolition and clearance of buildings that would enable access to areas of potential. The second phase of the evaluation was carried out in September and October 2004 in conjunction with the demolition of numerous buildings. This included 13 of the proposed evaluation trenches (Trenches 1-13). However, three of the trenches (Trenches 8, 12 and 13) were abandoned due to the large amount of live services and ground disturbance, together with access restrictions to the still existing businesses on site. Following this work, a second interim report was issued (OA North 2005). Phase 3 of the evaluation consisted of the final two trenches (Trenches 14 and 15) in December 2005, due to building work opening up the access to the western edge of the site. This final report sets out the results of all three phases of work.

The programme of evaluation has revealed archaeological deposits relating to nineteenth century buildings in Trenches 1-4, positioned along the street frontages of Washington Street and Pow Street and in Trenches 14 and 15 within St John's Arcade. Trench A, in Phase 1, contained a rubbish pit and foundations pertaining to the nineteenth century church. The central part of the site was shown to have been heavily disturbed during the construction of the recently demolished shopping precinct and associated car park, removing any trace of earlier activity on this part of the site. However, the depth of the garden soil observed beneath the cellaring, known from a small amount of finds to have been immediately prior to the nineteenth-century building phase, may have preserved any much earlier archaeological deposits. Therefore, truncation of any early archaeological remains on the street frontages appears to have been minimal, and the paucity of any remains pre-dating the nineteenth century is considered to be genuine.

ACKNOWLEDGEMENTS

Thanks are due to Dave Harriman of Monaghans for commissioning Phase 1 on behalf of Harrison Developments Ltd, and to George Todhunter of Thomas Armstrong (Construction) Ltd for commissioning Phases 2 and 3 the work, and Paul Gadson for his help on site, together with the provision of the mechanical excavator and site welfare facilities by Thomas Armstrong (Construction) Ltd. Thanks are also extended to Jeremy Parsons of Cumbria County Council's Historic Environment Service for his help and advice.

The evaluation was undertaken by Andrew Bates with assistance from David Tonks and Jason Clarke in Phases 1 and 3, with Paul Gajos assisted by Dave McNichol, Martin Sowerby and Jason Clarke in Phase 2. The report was written by Andrew Bates and Paul Gajos, and the drawings were created by Emma Carter, Karl Taylor and Andrew Bates. The report was edited by Emily Mercer and Alan Lupton. Emily Mercer managed the overall project.

1 INTRODUCTION

1.1 CIRCUMSTANCES OF THE PROJECT

- 1.1.1 Cumbria County Council's Historic Environment Service (CCCHES) issued a formal brief for an archaeological investigation in response to consultation by the local planning authority, Allerdale District Council, regarding a planning application (02/02/1038) to redevelop Washington Square in Workington town centre, Cumbria (NGR NY 0039 2862; Fig 1). The proposals involved redeveloping St John's Shopping Precinct and, due to the archaeological potential of the site defined by an earlier desk-based assessment (OA North 2002), an archaeological evaluation was required prior to development. This would target the areas identified in the desk-based assessment as being of moderate to high archaeological potential, consisting mainly of the northern, central and eastern areas of the site. CCCHES requested a 5% sample of the actual area of archaeological potential to be investigated. Oxford Archaeology North (OA North) submitted proposals to undertake a programme of evaluation, which equated to a total of 16 trenches (Trench A and Trenches 1-15), divided into three phases of evaluation trenching (*Appendices 2 and 3*). These proposals were accepted by the client, Harrison Developments Ltd, and approved by CCCHES.
- 1.1.2 Monaghans, working on behalf of the client, commissioned OA North to undertake the initial phase of evaluation work in October 2003 (Phase 1; Trench A), on the site of the demolished Presbyterian Church, the results of which were issued as an interim report (OA North 2004).
- 1.1.3 Thomas Armstrong (Construction) Ltd was appointed as the development contractor by Harrison Developments Ltd in the summer of 2004. Consequently, the beginning of the construction work enabled much of the remainder of the site to be made available for the remaining evaluation work (Phase 2, Trenches 1-13; Phase 3, Trenches 14-15). A proposed programme of works was agreed in accordance with the CCCHES brief (*Appendix 1*) correlating with the four zones of the development (Fig 3), taking into account approximately a quarter of the proposed development site each;
- Zone 1, in the south-west corner of the site, will be the new multi-storey car park. Two trenches were excavated in the area defined as of medium potential.
 - Zone 2, in the south-east corner, was to be redeveloped as part of the initial works. However, only the northern half lies within the area outlined as high/moderate archaeological potential, and was subject to archaeological evaluation.
 - Zone 3, in the north-east corner, lies within the area identified as being of high/moderate archaeological potential. This area was to be redeveloped in conjunction with Zone 2, excluding the area of the demolished Presbyterian Church (*ibid*), and Units 20, 21 and 22, adjacent to Zone 4 that will remain extant.

- Zone 4, in the north-west corner of the site, was to remain undeveloped for the most part and, therefore, relatively minimal impact on below-ground remains.

1.1.4 The evaluation of Zones 1, 2 and 3 was carried out as Phases 1 and 2 of the evaluation in October 2003 (*OA North 2004*), and September and October 2004 (*OA North 2005*). The evaluation of Zone 4 took place in Phase 3 in December of 2005. Results of this fieldwork for all three phases are presented in the form of this final report outlining the results of the findings, and the impact of the proposed development will be assessed. This report replaces the previous two interim reports issued.

2 BACKGROUND

2.1 LOCATION, GEOLOGY AND TOPOGRAPHY

2.1.1 Washington Square is situated in the north-east corner of the town of Workington, close to the site of Workington Hall (within 300m to the north-east), with the River Derwent to the north (Fig 1). The square is formed by Pow Street to the north, Washington Street to the east, Jane Street and Oxford Street to the south, and the former railway embankment to the west. It is an entirely urban area, containing a modern shopping precinct proposed for demolition, and at a height of around 15m aOD.

2.1.2 The solid geology consists essentially of Westphalian grey mudstones, with numerous coal seams (British Geological Survey 1982). The drift geology for the area is generally made up of alluvial deposits, although many areas are reclaimed coal workings and former spoil heaps (Countryside Commission 1998, 27). The topography is dominated by the broad flood plain of the River Derwent, and is essentially urban and industrial (*ibid*).

2.2 ARCHAEOLOGICAL AND HISTORICAL BACKGROUND

2.2.1 **Introduction:** this information has been taken from the desk-based assessment undertaken for the proposed development site in December 2002 (OA North 2002), and will provide a general background to the evaluation results and outline the archaeological potential.

2.2.2 The area around the town of Workington has very little known prehistoric remains and has produced only the odd stray Roman coin find (Hartley and Hardman 2002), although there is the Roman fort of Burrow Walls on the north side of the River Derwent. Furthermore, the line of a Roman road is considered to have passed through Workington (Jackson 1878), although further evidence for this has not been forthcoming.

2.2.3 Although no extensive early medieval settlement remains have yet been discovered in Workington, there are a number of significant discoveries in the vicinity. At the parish church of St Michael numerous cross fragments were found within the fabric of the church during rebuilding after a fire in 1887 (Calverley 1888; 1891; 1893), and in 1926 during work in the crypt (Mason and Valentine 1928). The majority seem to be Anglian in type, forming pieces of an ornately carved stone cross, dating to perhaps as early as the eighth century AD (Bailey and Cramp 1988). Other pieces include parts of what may be hog back gravestones or architectural fragments dating, perhaps, to the tenth century (*ibid*; Flynn 1996). More recent excavations, following another fire in 1994, revealed a further cross fragment built into the base of the wall, a socketed cross base still *in situ*, and burials, some of which were dated to the tenth century (Flynn 1996). Clearly the site was of some significance, although its wider context is unknown.

- 2.2.4 Workington was established by the end of the tenth century, with the earliest manorial buildings likely to have been positioned on the site of the Roman fort at Burrow Walls, perhaps by ancestors of the Curwen family, who came to own the manor (Byers 1998). The Curwen family seat was moved to the site of what is now Workington Hall some time in the late twelfth century, and the family have retained the manor from that time (Jackson 1881).
- 2.2.5 During the medieval period, fishing was one of the main sources of income for Workington. Fish weirs were established on the River Derwent from Cockermouth to Workington by at least 1278 (Winchester 1987, 108) and salmon fishing was being exploited by the lords of Cockermouth and Workington as early as the twelfth and thirteenth centuries, (*ibid*, 111). The first literary description, by Leland in the sixteenth century, refers to Workington as ‘a lytle prety fyssher town’ (Hutchinson 1794, 138).
- 2.2.6 Workington eventually developed into a significant port during the sixteenth century, in part because of the influence of the Mines Royal Company, which began building a harbour in 1569 (Byers 1998). Other developments began to grow around Workington; and the market charter was established in 1573 (*ibid*). By the end of the sixteenth century Workington had begun to grow in size, although it remained essentially a fishing town for some time. However, during the eighteenth century the large-scale exploitation of coal and its exportation to Ireland encouraged by James Christian Curwen dramatically changed Workington, leading to its rapid growth in both size and population (Jackson and Jackson 1988). This was apparently not carried out according to any planned development (Mannex and Whellan 1847, 421), to the extent that Workington was described as having ‘not been laid out with much taste’ (Pigot 1820, 334).
- 2.2.7 During the nineteenth century the increased production of iron and steel in the vicinity further contributed to Workington’s growth and prosperity, with 21 blast furnaces being built between 1763 and 1882 (Jackson and Jackson 1988, 37). The streets forming the study area (Pow Street, Washington Street, Jane Street and John Street) were divided between domestic and commercial properties, although there was still little development south of Pow Street before 1865 (Byers 1998, 129). The properties included numerous churches, chapels, a drill hall and a school (Jackson and Jackson 1988). Washington Street was a fashionable shopping area, in part because of its proximity to the cattle and auction market at its southern end (*op cit*, 69), and Pow Street also consisted almost entirely of shops (Woodruff 1990; Woodruff and Walker 1987). The Cleator and Workington Junction line opened in 1879, which cut through the centre of town, and was intended to break the monopoly of the London and North Western Railway Company (Jackson and Jackson 1988).
- 2.2.8 Workington reached its economic peak during the late nineteenth century. Pow Street and Washington Street, remained important shopping areas, with a wide variety of trades active on both streets, as well as a few private residences on Pow Street (Jollie and Sons 1811; Pigot 1820; Mannex and Whellan 1847; Morris, Harrison and Co 1861; Slater 1879; Bulmer and Co 1883; Kelly and Co 1897; Town and County Directories Ltd 1914; Kelly’s Directories Ltd 1925; 1938; County Publicity Limited 1954). The commercial nature of the

study area remains to the present day with the construction of St John's Precinct in 1965 (Byers 1998), which represented the most recent development in Workington until the current proposals. Even then, some of the shops within the precinct were able to trace their history on the site back for at least a century, Haigh's Butchers for example (Anon 2002), demonstrating the continuous occupation of the area over many decades.

2.3 ARCHAEOLOGICAL POTENTIAL

2.3.1 The desk-based assessment undertaken in December 2002 (OA North 2002) identified the majority of the known occupation and the use of land within the study area dated to the post-medieval period and, in particular, the nineteenth century. Therefore, the potential for identifying remains relating to this period is very high, although they are likely to relate primarily to domestic and commercial buildings. The areas along Washington Street and Pow Street consisted of a complex mix of buildings, principally comprising shops and houses. Jane Street, Thompson Street and Edkin Street are more likely to have been dominated by terraced housing. In the centre there was the Drill Hall and school, and the Presbyterian Church, which was demolished immediately prior to the evaluation of Trench A in October 2003 (OA North 2004). Few of the buildings were considered to have any high historical value in their present condition.

2.3.2 The area identified to have the highest archaeological potential is that along Pow Street and part of Washington Street, but it is likely to have already been disturbed by later development. Consequently, the most promising area combining a high level of archaeological potential and relatively moderate level of likely later disturbance, is immediately to the south of the demolished Presbyterian Church. This area is particularly interesting because it is the approximate position of the 'High Meeting House' recorded in 1793, and is within the general area of the medieval town, as far as this is known.

3 METHODOLOGY

3.1 PROJECT DESIGN

3.1.1 The enhanced desk-based assessment required in the CCCHES brief (*Appendix 1*) was not undertaken, following the agreement of CCCHES, as there were no further detailed information sources for this area to those in the original desk-based assessment (OA North 2002). The fieldwork was conducted in accordance with the project designs compiled by OA North for Phases 1 and 2 of the evaluation (*Appendices 2 and 3*), which was based on the project brief issued by CCCHES (*Appendix 1*). The project design for Phase 1 (*Appendix 2*) was adhered to in part to undertake one trench within the footings of the demolished Presbyterian Church (Figs 3 and 4), in agreement with the client and CCCHES. The programme of evaluation was subsequently revised prior to Phase 2 (*Appendix 3*) once the construction works had been confirmed in 2004. The work was consistent with the relevant standards and procedures of the Institute of Field Archaeologists, and generally accepted best practice.

3.2 ARCHAEOLOGICAL EVALUATION

3.2.1 A programme of trial trenching was implemented to establish the presence or absence of any previously unsuspected archaeological deposits and to record the nature, survival and extent of any remains identified. The project brief required a minimum sample of 5% of the proposed undeveloped study area, targeting areas identified by the desk-based assessment as being of moderate or high archaeological potential (Fig 2).

3.2.2 **Phase 1:** the first investigation in 2003 comprised one evaluation trench, Trench A, measuring 2m by 10m to be carried out immediately following the demolition of the Presbyterian Church in the north-west corner of the site (Figs 3 and 4).

3.2.3 **Phase 2:** the second phase of work in 2004 was to consist of 13 trenches measuring 20m x 1.9m (Trenches 1-13). However, during a site visit to assess the proposed location of trenches it became clear that the number of services crossing the site would restrict access in some areas and, consequently, reduce the area available for evaluation. A number of additional services and access problems during fieldwork prevented three trenches, Trenches 8, 12 and 13, from being excavated. Eight of the remaining 10 trenches measured 20m x 1.9m (Trenches 1, 3, 4, 5, 6, 7, 9 and 10), with Trench 2 measuring 10.4m x 1.9m and Trench 11 measuring 30m x 1.9m (Fig 3).

3.2.4 **Phase 3:** the final phase of work comprised the excavation of two trenches measuring 20m by 2m (Trench 14) and 11m by 2m (Trench 15). The work was completed in December 2005.

3.2.5 **The Fieldwork:** the evaluation trenches were excavated by a 360° mechanical excavator, fitted with a toothless ditching bucket, under the supervision of an OA North archaeologist. The trenches were excavated in a stratigraphical

manner down to the first significant archaeological features, and the spoil heaps were scanned for artefacts. When archaeological deposits were encountered, the trenches were hand cleaned and the deposits excavated manually in order to assess their date, character and extent.

- 3.2.6 The position of the trenches was located using a Zeiss total station. This was incorporated with digital map data in a CAD system to create the location map.
- 3.2.7 **Recording:** the recording comprised a full description and preliminary classification of the features and materials revealed on OA North *pro-forma* sheets, as recommended by English Heritage's Centre for Archaeology. A plan was produced showing the location of all the trenches and features, with representative sections being drawn at a scale of 1:10. A photographic record using monochrome print and colour slide formats was maintained.
- 3.2.8 **The Finds:** all finds recovered were bagged and recorded by context number; all significant finds were retained and have been processed and temporarily stored according to standard practise (following the Institute of Field Archaeologists guidelines).

3.3 THE ARCHIVE

- 3.3.1 A full professional archive has been compiled in accordance with the project design (*Appendices 2 and 3*) and in accordance with current IFA and English Heritage guidelines (English Heritage 1991). The paper archive will be deposited in the Whitehaven County Record Office, with a copy of the report submitted to the Cumbria HER. The material archive will be deposited with the appropriate museum.

4 RESULTS

4.1 INTRODUCTION

4.1.1 Thirteen trenches were excavated during three phases of evaluation from October 2003 to December 2005 in areas regarded as being of moderate to high archaeological potential (Figs 2 and 3). The results of the evaluation are presented below with full trench summaries presented in *Appendix 4*.

4.2 PHASE 1

4.2.1 **Trench A:** the trench was aligned approximately north/south across the width of the demolished church building (Fig 3), measuring 10m x 2m, and was excavated to a maximum depth of 1.1m.

4.2.2 Overburden, **01**, consisting of rubble was removed to a depth of 1.0m at the southern end of the trench down to natural subsoil (Fig 4). A sondage was excavated through to natural, **02**, which comprised layers of alluvium likely to relate to the River Derwent, seen as mid-reddish-brown, loose, coarse sandy-gravel with 40% to 50% rounded stone inclusions of a maximum size of 0.16m by 0.14m by 0.14m. It was evident that the upper layers of natural had been disturbed during the construction of the church, with some mortar and other materials intermixed.

4.2.3 In the northern half of the trench a circular pit was located, **03** (Fig 4), measuring 1.3m in diameter and 0.3m deep. It had been backfilled with deposit **04**, which comprised loose, very dark grey, coarse sandy-clay with 13% to 20% rounded stone in of a maximum size of 0.11m by 0.08m by 0.05m. This fill contained frequent fragments of bone and eighteenth or nineteenth century pottery, and appears to have functioned solely as a rubbish pit.

4.2.4 In the northern end of the trench the sandstone foundation of the recently demolished church was found, **05** (Fig 4). It was orientated in an east/west direction across the 2.0m width of the trench, measuring at least 0.83m wide as it continued under the northern baulk. It comprised a single course of roughly-squared sandstone blocks, measuring a maximum of 0.68m by 0.5m by 0.05m, with a dark grey medium sand-clay sediment used as a bonding material.

4.3 PHASE 2

4.3.1 **Trench 1:** the trench measured 20m by 1.9m, and was aligned north-west/south-east. It was located towards the northern extremity of the site and almost parallel to Pow Street (Fig 5) in order to locate any remains of early buildings lining the street frontage. The excavation of the trench revealed a deep cellar, **103** (exceeding 1.2m from the current ground surface) in the south-eastern end of the trench. This had been backfilled with brick rubble and modern debris (metal and plastic), **104**. The cellar wall, **102**, measuring 1m in

width was constructed of brick, and was aligned perpendicular to Pow Street. The full depth of the cellar was not seen due to health and safety constraints.

- 4.3.2 A foundation trench, **105**, was located 4m to the north-west of the cellar wall, also perpendicular to Pow Street, and contained modern debris. Natural deposits consisting of dark orange-brown sandy-silt with frequent well-rounded stone inclusions, were encountered at a depth of 0.8m below the present ground level.
- 4.3.3 **Trench 2:** the trench measured 10.4m by 1.9m and was aligned north-west/south-east. It was positioned on the east side of the site in order that remains of early buildings aligning Washington Street may be revealed. Excavation of the trench uncovered the foundations of three walls **204**, **206** and **208** (Fig 6; Plate 1), all of which were constructed of roughly-dressed sandstone blocks up to 0.3m across and bonded with lime mortar. Two of the walls, **206** and **208**, were parallel with Washington Street, with **204** perpendicular to, and abutting, **206**. The foundation walls were sealed with modern deposits and were observed cutting through layer **202**, which appeared to be a former garden or plough soil containing eighteenth to nineteenth century pottery. Natural deposits consisting of dark orange-brown sandy-silt with frequent well-rounded stone inclusions, were encountered at a depth of 0.1m below the present ground level.
- 4.3.4 **Trench 3:** the trench measured 20m by 1.9m and was aligned approximately north/south and parallel to Washington Street. As with Trench 2, it was aimed at locating any remains associated with the post-medieval street frontage aligning Washington Street. Six wall foundations were revealed **305**, **307**, **309**, **311**, **313** and **315** (Plate 2), all cutting through layers **302** and **303**. Layer **303** contained eighteenth to nineteenth century pottery and would appear to be a former garden or plough soil (Fig 7). Four of the walls **305**, **307**, **309** and **315** were aligned perpendicular to Washington Street and were all constructed of four courses of roughly-dressed sandstone bonded with good quality lime mortar. The remaining two walls **311** and **313** were less substantial, only consisting of two courses, very loosely bonded and extending for 0.75m. Both abutted, and were aligned perpendicular to, the northern side of wall **309**. All the walls were sealed by 0.5m of modern deposits. Natural deposits consisting of dark orange-brown sandy-silt with frequent well-rounded stone inclusions, were encountered at a depth of 0.8m below the present ground level. Natural deposits consisting of dark orange-brown sandy-silt with frequent well-rounded stone inclusions, were encountered at a depth of 0.1m below the present ground level.
- 4.3.5 **Trench 4:** the trench measured 20m by 1.9m, and was aligned north-west/south-east. It was positioned in the south-eastern corner of the area outlined as being of archaeological potential, to target any features associated with the street frontage on Washington Street. A single wall, **403**, was located in the south-eastern end of the trench and had been partially disturbed by a modern drain (Fig 8). The wall was constructed of roughly-dressed sandstone blocks bonded with lime mortar. The foundation cut of the wall was seen to cut through layers **404** and **405**. These deposits appear to be a similar to **202** and **303**, but **404** was more heavily disturbed and containing large amounts of brick

rubble and concrete. A large concrete slab was present in the northern-most 10m of the trench, which had truncated all deposits down to the level of the natural deposits at 1m below present ground level.

- 4.3.6 **Trenches 5 and 6:** both trenches measured 20m by 1.9m. The deposits in both consisted of modern material, tarmac, concrete slab and dark silts containing frequent brick and concrete rubble, to a depth of 1.2m where natural gravel was encountered. The lack of sub-soil or plough/garden soil above the natural suggests a high level of modern truncation. A brick-lined soakaway was seen cutting into the natural deposits in the north-western end of Trench 6.
- 4.3.7 **Trenches 7, 8 and 9:** the positions of Trenches 7, 8 and 9 were all located under the recently demolished Co-Op store building. Trench 8 was not excavated, however, as demolition works had adversely disturbed large areas of ground in its vicinity.
- 4.3.8 Trenches 7 and 9 both measured 20m by 1.9m. A heavily disturbed layer of dark grey-brown silt was revealed in both trenches and contained brick and concrete rubble to depths of between 0.25m and 0.5m from the surface. This was seen to overlay natural gravel. No archaeological features were encountered.
- 4.3.9 **Trench 10:** Trench 10 was located under the walkway to the west of the recently demolished Co-Op building. The trench measured 20m by 2.3m and reached a maximum depth of 1.1m. The deposits revealed in the trench consisted of demolition rubble to a depth of 0.2m, overlying dark grey plough/garden soils to a depth of 0.7m where natural gravel was encountered. Two modern, brick-lined soakaways were seen cutting into the natural in the northern end of the trench.
- 4.3.10 **Trench 11:** Trench 11 measured 30m by 1.9m and was located under the recently demolished Ladbroke's building. The concrete slab and shop floor overlay a dark grey deposit containing frequent demolition rubble to a depth of 0.6m where natural gravel was encountered. No archaeological features were seen in the trench.
- 4.3.11 **Trenches 12 and 13:** neither Trenches 12 or 13 could not be excavated due to the complex network of services and utilities in this area and there was a need to maintain access to Haigh's Butchers, which is still in operation.

4.4 PHASE 3

- 4.4.1 **Trench 14:** Trench 14 was located below the recently demolished shops of the St John's Arcade, and measured 20m by 2m. In total, four concrete beams were located within the trench, associated with the recently demolished buildings (Fig 9 and 13). At the north-western end of the trench, part of a modern concrete floor with green tiles, **1410**, was present at a depth of 1.9m, which it was not possible to remove due to the constraints of the excavation. Two red brick cellar walls were located within the trench, **1400** and **1402**. These are thought to be partitions within the cellars of the recently demolished

buildings. A larger sandstone cellar wall, **1401**, pre-dates the red brick cellaring (Fig 9). This earlier cellar wall appears to correlate with the wall of the extension to the Methodist Chapel built after the OS map of 1865 (Fig 10) and prior to the 1900 OS map of the area (Fig 11). It was evidently also used as a foundation for the recently demolished buildings in place of a concrete beam. The depth of the trench and danger of collapse prevented it being entered for recording, all records being made from the surface only.

- 4.4.2 **Trench 15:** Trench 15 measured 11m by 2m, and was located under a recently demolished store. The concrete floor of the shop was removed, and excavation of the trench proceeded through made ground and building rubble. At a depth of 4.4m, and measuring 0.60m thick, a very grey dark silty-clay, **1502**, was located. This had the appearance of a buried garden soil. At a depth of 5m glacial till was reached, comprised of a poorly sorted clayey-gravel. The depth of the trench and danger of collapse prevented it being entered for recording purposes, with all records being made from the surface only.

4.5 THE FINDS

- 4.5.1 In total, 13 artefacts were recovered from the site, all of which were fragments of pottery. They were retrieved from the garden soil, or plough soil, layer encountered in Trenches 2, 3, and 4 (**202**, **303**, and **405**, respectively). The finds are discussed below, and are tabulated in *Appendix 5*.
- 4.5.2 The pottery fragments were from eight to ten individual vessels, and represent a small domestic assemblage. Approximately half were brown-glazed red earthenware coarseware vessels, being crocks and jars of the type that were used in kitchens from the late seventeenth century to the early twentieth century. Most of the fragments from these vessels were large, and some joins were noted. In addition to coarseware vessels, five small fineware fragments were recovered. They included slip-lined and slip-coated jars dated to the late seventeenth to eighteenth century. The three remaining fragments were from a white salt-glazed stoneware vessel dated to the eighteenth or early nineteenth century, and two white-glazed white earthenware vessels dated to the late eighteenth to twentieth century. The only fragment which was decorated beyond a simple slip-coating or glaze was from one of the white-glazed white earthenware vessels, which had an external brown slip coating, applied sprigs, and coloured glazes.

5 DISCUSSION OF RESULTS

5.1 CONCLUSION

- 5.1.1 The evaluation of the site has demonstrated that much of the central area of the site had been severely truncated by development during the 1960s, which has effectively removed any traces of any earlier activity. No indication of the Drill Hall or School, which are known to have existed in this area of the site (OA North 2002), were encountered.
- 5.1.2 However, the north and east edges of the development area, closest to Washington Street and Pow Street, have not been disturbed to such an adverse extent. Within these areas, the foundations of nineteenth century buildings were encountered (Trenches A and 1-4) that correspond with structures shown on the Ordnance Survey maps of 1865, 1900 and 1925 (Figs 10-12), which were known to be a mix of domestic and commercial properties (OA North 2002). The foundations were seen to cut through deep deposits of garden or plough soil, that in some areas directly overlay the natural deposits. Pottery sherds recovered from these deposits have been dated to the late seventeenth century through to the twentieth century, which reflects the continued use of various activities on the street frontages during this period. Stratigraphic evidence, combined with cartographic evidence, concurs with the pottery evidence as it likely that the garden soil dates to before 1860.
- 5.1.3 The remains of the cellars were also encountered in the eastern end of Trench 1 and in Trench 14. It is also possible that Trench 15 was situated within a backfilled cellar, as the depth of the rubble observed was similar to that in Trench 14. Beneath these cellars, and the foundation remains, the presence of garden soil suggests that truncation of any archaeological features or deposits in existence prior to the nineteenth century is likely to be relatively minimal, particularly along the frontages of Washington Street and Pow Street. With this in mind, the paucity of archaeological features during the evaluation pre-dating the nineteenth century is considered to be genuine and not a product of later disturbance.

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APPENDIX 1: PROJECT BRIEF

APPENDIX 2: PROJECT DESIGN, PHASE 1

1. INTRODUCTION

1.1 Project Background

1.1.1 Monaghan (hereafter the client) has requested that Oxford Archaeology North (OA North) submit proposals for the enhancement of the desk-based study and evaluation at St John's Precinct, Workington, Cumbria (NY 0039 2862), in advance of the proposed re-development of the site. This project design is a revised version of the original dated March 2003. This takes into account the reduction in the area to be evaluated in the first instance, which is situated in the north-east corner of the proposed re-development and comprises an area of extant car parking and a demolished nineteenth century church.

1.2 Background

1.2.1 The site has been subject to a documentary study which has examined the archaeological potential of the area. Early medieval remains have been discovered in Workington, but these relate to a single site, and there is no evidence of any activity from this period within the immediate environs of the study area. Documentary sources suggest that the town of Workington was established within this period.

1.2.2 It has been demonstrated that Pow Street probably formed part of the medieval town. It appears to fit with what is shown on the plan of 1569, and was certainly in place by 1793. The detailed medieval layout of Workington is not well understood, however, and there are few certainties about its exact form. The area fronting directly onto Pow Street could potentially have extensive surviving medieval remains surviving below post medieval and modern remains, although without carrying out a physical inspection of the standing buildings it is difficult to assess the extent of damage caused by later cellars.

1.2.3 The majority of the occupation and the use of land within the study area dates to the post-medieval period, in particular the nineteenth century. The potential for identifying remains throughout the study area relating to this period is very high, although they are likely to relate primarily to domestic and commercial buildings. The areas along Washington Street and Pow Street consisted of a complex mix of buildings, principally comprised of shops and houses. Jane Street, Thompson Street and Edkin Street are more likely to have been dominated by terraced housing. In the centre there were the Drill Hall and school, with a Presbyterian Church to the north-east. Few of these buildings have any high historical value in their present condition, although they could potentially provide a great deal of information about daily life in nineteenth century Workington, and the post medieval development of the town.

1.3 Oxford Archaeology North

1.3.1 Oxford Archaeology North (OA North) has considerable experience of the archaeological survey and evaluation of sites and monuments of all periods, having undertaken a great number of small and large projects during the past 20 years. Projects have been undertaken to fulfil the different requirements of various clients and planning authorities, and to very rigorous timetables. OA North has considerable experience of the recording of historic buildings together with the evaluation and excavation of sites of all periods, having undertaken a great number of small and large scale projects during the past 20 years. Fieldwork has taken place within the planning process and construction programmes, to fulfil the requirements of clients and planning authorities, to very rigorous timetables.

1.3.2 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, in accordance with a brief by Cumbria County Council Archaeology Service (CCCAS) to provide an enhancement of the existing desk-based study and an evaluation. The required stages to achieve these ends are as follows:

2.2 **Desk-Based Study Enhancement:** to provide an enhancement of the existing desk-based study for the site.

2.3 **Evaluation Trenching:** to implement a programme of trial trenching.

2.4 **Report:** a written report will assess the significance of the data generated by this programme within a local and regional context. It will present the desk-based work and evaluation and would make an assessment of the archaeological potential of the area, and would make recommendations for further work.

3. METHOD STATEMENT

3.1 Desk-Based Study Enhancement

3.1.1 It is proposed that the existing desk-based study be enhanced by means of the investigation of additional sources. This would provide for the re-examination of trade directories, a search for historical photographs to provide evidence of the recent history of the site, and any other sources pertinent to the study. The search for additional sources will involve a visit to the Cumbria Record Office and Local Studies Library in Whitehaven (tel 01946 852920).

3.2 Evaluation Trenching

3.2.1 The programme of trenching will establish the presence or absence of any previously unsuspected archaeological deposits and, if established, will then test their date, nature, depth and quality of preservation. The work will be carried out in three phases as the areas become available, with the demolished church and its car park as one phase and the car park to the south split into east and west phases.

3.2.2 **Methods:** the evaluation is required to evaluate 5% of the undeveloped study area. With this in mind the area to be considered in the first instance lies in the north-east corner of the re-development area and contains 11 trenches measuring 10m x 1.6m. The position of these trenches has been arranged to accommodate the phased access of the car parking and the use of the road, Thompson Street. Provisionally the trenches will be scattered uniformly over the extent of the undeveloped area, but in practice the precise locations will be determined by the site investigation, the enhanced assessment, and in consultation with CCCAS. Subject to the assessment there may also be additional areas of disturbed land, which are inappropriate for evaluation, and consequently may reduce the overall area needing to be evaluated.

3.2.3 The trenches will be excavated by a combination of mechanised and manual techniques; the topsoil will be removed by mechanical excavator, fitted with a 1.6m wide toothless bucket, and archaeological deposits beneath will be first manually cleaned and then any features identified will be manually excavated. The machine excavation will not intrude into any potential archaeological stratigraphy and all machine excavation will be undertaken under careful archaeological supervision. Following mechanical excavation the floor of the trench will be cleaned by hoe and Manual excavation techniques will be used to evaluate any sensitive deposits, and 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.

3.2.4 All trenches will be excavated in a stratigraphical manner, whether by machine or by hand. Trenches will be located by use of GPS equipment which is accurate to +/- 0.25m, altitude information will be established with respect to Ordnance Survey Datum. Archaeological features within the trenches will be planned by manual techniques.

- 3.2.5 Samples will also be collected for technological, pedological and chronological analysis as appropriate. If necessary, access to conservation advice and facilities can be made available. OA North maintains close relationships with Ancient Monuments Laboratory staff at the Universities of Durham and York and, in addition, employs artefact and 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.
- 3.2.6 **Human remains:** working within the environs of the churchyard suggests that human remains may be present on the site. The recovery and 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. The costs for exhumation of the human remains has been defined as a contingency. Consequently, should analysis of the remains be necessary a strategy will be agreed with CCCAS and the client and will be costed as a variation.
- 3.2.7 **Environmental Assessment:** 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). Subject to the results of the excavation an assessment of any environmental samples will be undertaken by the in-house palaeoecological specialist, who 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 defined as a contingency and will only be called into effect if good waterlogged deposits are identified and will be subject to the agreement of CCCAS and the client.
- 3.2.8 **Faunal Assessment:** OA north's specialist in faunal remains (Andrew Bates) will assess the potential of the site for producing bones of fish and small mammals, and subject to the results there may be a requirement for more detailed analysis. The present costs provide only for the assessment.
- 3.2.9 **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.
- 3.2.10 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.

3.3 Report

- 3.3.1 **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. This archive can be provided in the English Heritage Centre for Archaeology format and a synthesis will be included in the Cumbria Sites and Monuments Record. 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.

- 3.3.2 **Report:** one bound and one unbound copy of a written synthetic report will be submitted to the Client, and a further three copies will be submitted to 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.
- 3.3.3 The report will include a frontispiece showing the planning number and the grid reference. It 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.
- 3.3.4 The report will provide a predictive model for the surviving archaeological remains on the basis of the evaluation, site inspection and enhanced desk-top study, and assessment of the impact upon the archaeological resource by the development will be made.
- 3.3.5 Illustrative material will include a location map, site map, historic maps, a trench location map, trench plans, survey plans and also pertinent photographs. It can be tailored to the specific requests of the client (eg particular scales etc), subject to discussion.
- 3.3.6 **Publication:** a summary report of the results will be submitted to a regional journal, and information from the project will be fed into the OASIS project (On-line Access to Index of Archaeological Investigation).

3.4 Other matters

- 3.4.1 **Health and Safety:** OA North provides a Health and Safety Statement for all projects and maintains a Unit Safety policy. All site procedures are in accordance with the guidance set out in the Health and Safety Manual compiled by the Standing Conference of Archaeological Unit Managers (1991). OA North will liaise with the client to ensure all health and safety regulations are met. A risk assessment will be completed in advance of any on-site works.
- 3.4.2 Full regard will, of course, be given to all constraints (services etc) during the survey, as well as to all Health and Safety considerations. If there is a requirement to excavate trenches deeper than 1.25m the trenches will be stepped out to minimise section collapse.
- 3.4.3 As a matter of course the Unit uses a U-Scan device prior to any excavation to test for services. It is assumed that the client will provide any available information regarding services within the study area, if available. Any knowledge of contamination of the site must also be made available to OA North prior to commencement of the work in order that this can be taken into account in the risk assessment.
- 3.4.4 **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. For all other claims to cover the liability of OA North, in respect of personal injury or damage to property by negligence of OA North or any of its employees, there applies the insurance cover of £2m for any one occurrence or series of occurrences arising out of one event.
- 3.4.5 **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.

- 3.4.6 **Project Monitoring:** OA North will consult with the client regarding access to the site. Whilst the work is undertaken for the client, the County Archaeologist will be kept fully informed of the work and its results. Any proposed changes to the project design will be agreed with CCCAS in consultation with the Client.
4. WORK PROGRAMME
- 4.1 The following programme is proposed;
- Desk-Based Enhancement:** approximately a three day period would be required for this element.
- Site Inspection:** one day will be required to complete this element
- Evaluation Trenching:** approximately 6 days will be required to complete this element in three separate phases.
- Report:** a ten day period would be 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 **Emily Mercer BA MSc AIFA** (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 Present timetabling constraints preclude detailing exactly who will be carrying out the excavation and watching brief, but it is likely to be supervised by an OA North project officer or supervisor experienced in this type of project. All OA North supervisors are experienced field archaeologists capable of carrying out projects of all sizes.
- 4.5 The processing and analysis of any 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.
- 4.6 Assessment of any finds from the excavation will be undertaken by Sean McPhillips BA. Sean has worked as a finds supervisor for English Heritage and MOLAS on a number of occasions and has extensive knowledge concerning finds. Assessment of any faunal remains will be undertaken by Andy Bates (OA North supervisor).

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APPENDIX 3: PROJECT DESIGN, PHASE 2

1. INTRODUCTION

1.1 Project Background

1.1.1 Monaghans (hereafter the client) has requested that Oxford Archaeology North (OA North) submit proposals to undertake the remaining work for an archaeological assessment over the area outlined of proposed redevelopment (planning application no 2/02/1038) of Workington Town Centre, Workington, Cumbria (NGR NY 0039 2862). The requirement is for an enhancement of the desk-based assessment undertaken in 2002 (OA North 2002) and evaluation of areas of impact considered to be of high or moderate archaeological potential (*ibid*). This project design is an updated version of the original dated March 2003, and takes into account the area of the demolished nineteenth century church in the north-east corner of the site which was subject to evaluation trenching in October 2003.

1.1.2 The following proposed programme of works is in accordance with a brief prepared by Cumbria County Council Archaeology Service (CCCAS). The development is divided into four zones, taking into account approximately a quarter of the proposed development site each;

- Zone 1, in the south-west corner of the site, will be the new multi-storey car park and is not expected to be undertaken until completion of Zone 2, in approximately September 2005.
- Zone 4, in the north-west corner of the site, will remain in its entirety and therefore no development impact on below ground remains.
- Zone 2, in the south-east corner, will be redeveloped as part of the initial works. However, only the northern half lies within the area outlined as high/moderate archaeological potential and will be subject to archaeological evaluation.
- Zone 3, in the north-east corner, will be redeveloped at the same time as Zone 2. The whole of Zone 3 is within the area outlined as high/moderate archaeological potential. However, the area of the demolished church has been previously evaluated and Units 20, 21 and 22 adjacent to Zone 4 will remain.

1.2 Archaeological Potential

1.2.1 The site has been previously subject to a desk-based assessment (OA North 2002), which examined the archaeological potential of the area. Early medieval remains have been discovered in Workington, but these relate to a single site, and there is no evidence of any activity from this period within the immediate environs of the study area. However, documentary sources suggest that the town of Workington was established within this period.

1.2.2 It was further demonstrated that Pow Street, which forms the northern boundary to the site, probably formed part of the medieval town. It appears to correlate with the plan of 1569, and was certainly in place by 1793. The detailed medieval layout of Workington is not well understood, however, and there are few certainties about its exact form. The area fronting directly onto Pow Street could potentially have extensive surviving medieval remains surviving below post-medieval and modern remains, although without carrying out a physical inspection of the standing buildings it is difficult to assess the extent of damage caused by later cellars.

1.2.3 The majority of the occupation and the use of land around the site dates to the post-medieval period, in particular the nineteenth century. The potential for identifying remains throughout the study area relating to this period is very high, although they are likely to relate primarily to domestic and commercial buildings. The areas along Washington Street and Pow Street consisted of a complex mix of buildings, principally comprised of shops and houses. Jane Street, Thompson Street and Edkin Street are more likely to have been dominated by terraced

housing. In the centre there were the Drill Hall and school, with a Presbyterian Church to the north-east. Few of these buildings have any high historical value in their present condition, although they could potentially provide a great deal of information about daily life in nineteenth century Workington, and the post medieval development of the town.

1.3 Oxford Archaeology North

1.3.1 Oxford Archaeology North (OA North) has considerable experience of excavation of sites of all periods, having undertaken a great number of small and large scale projects throughout Northern England during the past 23 years. Evaluations, assessments, watching briefs and excavations have taken place within the planning process, to fulfil the requirements of clients and planning authorities, to very rigorous timetables.

1.3.2 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 assess and evaluate the archaeological potential that may exist within the development site. This should provide a more informed mitigation strategy should it be required prior to development. The required stages to achieve these ends are as follows:

2.2 **Enhanced desk-based assessment:** to provide an enhancement of the existing desk-based assessment for the site.

2.3 **Visual inspection:** a visual inspection of the site will be undertaken to assess constraints for the evaluation.

2.4 **Evaluation:** to implement a programme of trial trenching examining the available area of archaeological potential. This will provide information on the presence/absence of any archaeological remains, and the nature and possible extent which would be impacted by the proposed redevelopment works.

2.5 **Report:** a written report will assess the significance of the data generated by this programme within a local and regional context. It will present the desk-based work and evaluation and would make an assessment of the archaeological potential of the area.

3. METHOD STATEMENT

3.1 Enhanced Desk-Based Assessment

3.1.1 It is proposed that the existing desk-based assessment be enhanced by means of the investigation of additional sources. This would provide for the re-examination of trade directories, a search for historical photographs to provide evidence of the recent history of the site, and any other sources pertinent to the study. The search for additional sources will involve a visit to the Cumbria Record Office and Local Studies Library in Whitehaven (tel 01946 852920).

3.2 Visual Inspection

3.2.1 A visual inspection of the site will be required to assess any potential below ground disturbance, such as cellars, and any hazards and constraints that may affect the siting of evaluation trenches, such as live services and TPOs. An initial inspection will be undertaken of the first available area (the Cumbrian Co-op in Zone 2). Thereafter, it should be possible to inspect areas as they become available through demolition during evaluation elsewhere on site. Should an area require inspection at a time when no member of OA North staff is attending site, it may be necessary to cost this as a contingency based on day rates of staff.

3.3 Evaluation

- 3.3.1 The programme of trial trenching will establish the presence or absence of any previously unsuspected archaeological deposits and, if established, will then test their date, nature, depth and quality of preservation. Due to construction works, the evaluation will be undertaken as and when the areas become available through building demolition or restriction of access. Therefore, the evaluation is likely to be phased and possibly on various mobilisations.
- 3.3.2 The evaluation is required to evaluate a minimum of c5% of the study area. The overall available area within the identified archaeological potential is approximately 13,150m² and this requires the excavation of 657m². This would entail the excavation of trenches to a total length of 365m x 1.8m, which would be divided into 18 individual trenches of 20m in length. The location of these trenches will be determined by the desk-based assessment enhancement and visual inspection and in consultation with CCCAS. Subject to the inspection there may also be additional areas of disturbed land, which are inappropriate for evaluation and consequently may reduce the overall area needing to be evaluated.
- 3.3.3 The modern overburden deposits will be subject to sample excavation, involving the careful excavation by machine of spits. These will be mechanically excavated down to the depth of the first significant archaeological deposits. This deposit will be cleaned by hand, using either hoes, shovel scraping, and/or trowels depending on the subsoil conditions, and inspected for archaeological features. Thereafter all excavation will proceed by hand in a stratigraphic manner. The trenches will not be excavated deeper than 1.20m to accommodate health and safety constraints; any requirements to excavate below this depth will involve recosting.
- 3.3.4 It is anticipated that the contractor on site will remove any rubble/concrete surfaces prior to archaeological excavation, during demolition of existing buildings. Any concrete surfaces may be required to be broken with a pecker mounted on the mechanical excavator. For the purposes of costing it has been discussed with the main contractor, Thomas Armstrong (Construction) Ltd, that the appropriate plant will be provided. However, if this proves not to be feasible there will need to be a variation to the costing, for plant hire, breakers and any additional staff to supervise the work as this will affect the time and cost element of the work outlined in this project design.
- 3.3.5 All features of archaeological interest must be investigated and recorded unless otherwise agreed by CCCAS. The trenches will not be excavated deeper than 1.2m to accommodate health and safety constraints; any requirements to excavate below this depth will involve recosting. All trenches will be excavated in a stratigraphical manner, whether by machine or by hand. Trenches will be located by use of GPS equipment which is accurate to +/- 0.25m, altitude information will be established with respect to Ordnance Survey Datum.
- 3.3.6 Any investigation of intact archaeological deposits will be exclusively manual. Selected pits and postholes will normally only be half-sectioned, linear features will be subject to no more than a 10% sample, and extensive layers will, where possible, be sampled by partial rather than complete removal. It is hoped that in terms of the vertical stratigraphy, maximum information retrieval will be achieved through the examination of sections of cut features. All excavation, whether by machine or by hand, will be undertaken with a view to avoiding damage to any archaeological features, which appear worthy of preservation *in situ*.
- 3.3.7 All information identified in the course of the site works will be recorded stratigraphically, using a system, adapted from that used by Centre for Archaeology Service of English Heritage, with sufficient pictorial record (plans, sections and both black and white and colour photographs) to identify and illustrate individual features. Primary records will be available for inspection at all times.
- 3.3.8 Results of all field investigations will be recorded on *pro forma* context sheets. The site archive will include both a photographic record and accurate large scale plans and sections at an appropriate scale (1:50, 1:20 and 1:10). All artefacts and ecofacts will be recorded using the same system, and will be handled and stored according to standard practice (following current Institute of Field Archaeologists guidelines) in order to minimise deterioration.

- 3.3.9 **Reinstatement:** it is understood that there will be no requirement for reinstatement of the ground beyond backfilling. The ground will be backfilled so that the topsoil is laid on the top, and the ground will be roughly graded with the machine. Should there be a requirement by the client other than that stated this will involve recosting.
- 3.3.10 **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 the environmental potential of the site will be undertaken through the examination of suitable deposits by the in-house palaeoecological specialist, who will examine the potential for further analysis. The assessment would include soil pollen analysis and the retrieval of charred plant macrofossils and land molluscs from former dry-land palaeosols and cut features. In addition, the samples would be assessed for plant macrofossils, insect, molluscs and pollen from waterlogged deposits. The costs for the palaeoecological assessment are defined as a contingency and will only be called into effect if good deposits are identified and will be subject to the agreement of CCCAS and the client.
- 3.3.11 Advice will also be sought as to whether a soil micromorphological study or any other analytical techniques will enhance the understanding of the site formation processes, including the amount of truncation to buried deposits and the preservation of deposits within negative features. Should this be required the costs for analysis have been provided as a contingency.
- 3.3.12 **Faunal remains:** if there is found to be the potential for discovery of bones of fish and small mammals a sieving programme will be carried out. These will be assessed as appropriate by OA north's specialist in faunal remains, and subject to the results, there may be a requirement for more detailed analysis. A contingency has been included for the assessment of such faunal remains for analysis.
- 3.3.13 **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. CCCAS 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.
- 3.3.14 **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.
- 3.3.15 **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.
- 3.3.16 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.
- 3.3.17 **Access:** it is assumed access will be arranged by the client for OA North. The site will be protected from public access by hoarding, supplied and arranged by the main contractor.
- 3.3.18 **Contingency plan:** there is uncertainty as to the depth and survival of archaeological deposits and this will have an implication on the resourcing of the excavation. For the present costing it is assumed that there will be good survival of significant archaeological deposits to an average depth of 0.7m (following removal of overburden and allowing for localised deposits to greater depth). In the event of significant archaeological features being encountered during the evaluation, in terms of complexity or generally deeper deposits than can be anticipated from the evidence available, there may need to be a corresponding increase in costs, which will be subject to discussions with CCCAS as to the extent of further works to be carried out, and in

agreement with the client. All further works would be subject to a variation to this project design. In addition, a contingency costing may also be employed for unseen delays caused by prolonged periods of bad weather, vandalism, discovery of artefacts which require specialist removal, use of shoring to excavate important features close to the excavation sections etc. Similarly there will be a recourse to a contingency if substantial waterlogged deposits are recovered.

- 3.3.19 Thus, in accordance with the Institute of Field Archaeologists guidance, these contingency costs to cover variation from those circumstances that are predictable from the earlier excavation results are defined in the costings section.
- 3.3.20 The evaluation will provide a predictive model of surviving archaeological remains detailing zones of relative importance against known development proposals. In this way, an impact assessment will also be provided.

3.4 Archive/Report

- 3.4.1 **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) and the *Guidelines for the Preparation of Excavation Archives for Long Term Storage* (UKIC 1990). The project archive represents the collation and indexing of all the data and material gathered during the course of the project. The deposition of a properly ordered and indexed project archive in an appropriate repository is considered an essential and integral element of all archaeological projects by the IFA in that organisation's code of conduct.
- 3.4.2 **Report:** one bound and one unbound copy of a written synthetic report will be submitted to the client, and a copy submitted to CCCAS and Cumbria SMR within eight weeks of completion of fieldwork. 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.
- 3.4.3 **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.

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.
- 4.2 Any known contamination issues or any specific health and safety requirements on site should be made known to OA North by the client or main contractor on site to ensure all procedures can be met.
- 4.3 Similarly, any drawings or knowledge of live cables or services that may pose a risk to OA North staff during evaluation must be made known to the project manager of OA North before site work. This will ensure the risk is dealt with appropriately.
- 4.4 Should areas of previously unknown contamination be encountered on site the works will be halted and a revision of the risk assessment carried out. Should it be necessary to supply additional PPE or other contamination avoidance equipment this will be costed as a variation.

5. PROJECT MONITORING

- 5.1 Monitoring of this project will be undertaken through the auspices of the CCCAS Archaeologist, who will be informed of the start and end dates of the work.

6. WORK TIMETABLE

- 6.1 **Enhanced desk-based assessment:** the duration of this element is expected to take two days.
- 6.2 **Visual Inspection:** this element is expected to take one or two days depending on progress of site access and availability.
- 6.3 **Evaluation:** this element of the fieldwork is expected to take approximately fifteen days to complete in accordance with the programme of works outlined in this document.
- 6.4 Once the results of the evaluation are known CCCAS will be contacted regarding further archaeological work required on site.

7. STAFFING

- 7.1 The project will be under the direct management of **Emily Mercer BA (Hons) MSc AIFA** (OA North Senior Project Manager) to whom all correspondence should be addressed.
- 7.2 The desk-based assessment and rapid identification survey will be supervised in the field by **Daniel Elsworth MA (Hons) PIFA** (OA North Supervisor). Daniel has a great deal of experience in the desk-based studies and the recording and interpretation of archaeological features of all periods throughout the North West.
- 7.3 The evaluation 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.
- 7.4 Assessment of the finds from the evaluation will be undertaken under the auspices of OA North's in-house finds specialist **Christine Howard-Davis** (OA North project officer). Christine has extensive knowledge of finds from many periods, although she does have considerable experience with Roman finds, being involved with the excavations at Ribchester and at present with the Carlisle Millennium Project.
- 7.5 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.

8. INSURANCE

- 8.1 OA North has a professional indemnity cover to a value of £2,000,000; proof of which can be supplied as required.

REFERENCES

- English Heritage, 1991 *Management of Archaeological Projects*, 2nd edn, London
- Institute of Field Archaeologists (IFA), 1992 *Guidelines for data collection and compilation*, London
- OA North, 2002 *St John's Precinct, Workington, Cumbria: Archaeological Desk-Based Assessment*, unpubl client rep
- SCAUM (Standing Conference of Archaeological Unit Managers), 1991 *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 4: TRENCH SUMMARIES

Trench A	Dimensions 10m by 2m	Orientation N/S
Context	Description	Depth
01	Modern overburden consisting of rubble. It was removed to a depth of 1.0m at the southern end of the trench down to natural.	0-1.0m
02	Natural subsoil; comprised layers of alluvium, seen as mid reddish-brown, loose coarse sandy-gravel with c40% to 50% rounded stone inclusions of a maximum size of 0.16m by 0.14m by 0.14m.	1.0m+
03	Fill of 03 , which comprised loose, very dark grey, coarse sandy-clay with 13% to 20% rounded stone with a maximum size of 0.11m by 0.08m by 0.05m. The fill contained frequent fragments of bone and eighteenth or nineteenth century pottery, and appears to have functioned solely as a rubbish pit.	0.2m
04	Cut of eighteenth/nineteenth century circular rubbish pit measuring 1.3m in diameter and 0.3m deep.	0.35m
05	Sandstone foundation wall running east/west, from the recently demolished church, measuring 0.83m wide. It comprised a single course of roughly-squared sandstone blocks, measuring a maximum of 0.68m by 0.5m by 0.05m, with dark grey medium sand-clay bonding material.	0.3m+

Trench 1	Dimensions 20m by 2m	Orientation NW-SE
Context	Description	Depth
100	Tarmac and hardcore.	0-0.4m
101	Natural, c85% well rounded stone, <0.4m, very poorly sorted in a dark orange-brown sandy-silt matrix.	1.2m+
102	Brick built cellar wall, 1m wide.	0.4m-1.2m+
103	Cut of cellar.	0.4m-1.2m+
104	Brick rubble backfill of cellar.	0.4m-1.2m+
105	Foundation trench filled with brick rubble.	0.4m+

Trench 2	Dimensions 10.4m by 1.9m	Orientation NW/SE
Context	Description	Depth
200	Tarmac and hardcore.	0-0.28m
201	Natural, c60% well rounded stone, <0.40m, very poorly sorted in a dark orange-brown sandy-silt matrix.	0.8m+
202	Dark grey-brown, slightly sandy-silt with c10% well rounded stone <0.1m, poorly sorted, mostly in upper 0.1m of layer.	0.28m-0.8m
203	Cut of wall foundation 204 .	0.28m-1.1m
204	NE-SW running wall foundation of roughly dressed sandstone	0.28m-1.1m

	bonded with lime mortar, blocks measuring up to 0.3m by 0.3m by 1.5m. Four courses survive.	
205	Cut of wall foundation 206 .	0.28m-0.9m
206	NW-SE running wall foundation of roughly dressed sandstone bonded with lime mortar, blocks measuring up to 0.3m by 0.3m by 1.5m. Two courses survive.	0.28m-0.9m
207	Cut of wall foundation 208 .	0.28m-1.1m
208	NW-SE running wall foundation of roughly dressed sandstone bonded with lime mortar, blocks measuring up to 0.3m by 0.3m by 1.5m. Four courses survive.	0.28m-1.1m

Trench 3	Dimensions 20m by 1.9m	Orientation NE/SW
Context	Description	Depth
300	Tarmac and hardcore.	0-0.5m
301	Natural, c60% well rounded stone, <0.4m, very poorly sorted in a dark orange-brown sandy-silt matrix.	1.0m+
302	Mixed deposit, dark grey-brown sandy-silt frequent brick rubble.	0.5m-0.6m
303	Dark grey-brown, slightly sandy silt with c10% well rounded stone <0.1m, poorly sorted.	0.6m-1.0m
304	Cut of wall foundation 305 .	0.6m-1.2m
305	NE-SW running wall foundation of roughly dressed sandstone bonded with good quality lime mortar, blocks measuring up to 0.3m by 0.3m by 1.5m.	0.6m-1.2m
306	Cut of wall foundation 307 .	0.6m-1.2m
307	NE-SW running wall foundation of roughly dressed sandstone bonded with good quality lime mortar, blocks measuring up to 0.3m by 0.3m by 1.5m.	0.6m-1.2m
308	Cut of wall foundation 309 .	0.6m-1.2m
309	NE-SW running wall foundation of roughly dressed sandstone bonded with good quality lime mortar, blocks measuring up to 0.3m by 0.3m by 1.5m.	0.6m-1.2m
310	Cut of wall foundation 311 .	0.6m-0.8m
311	Spur wall abutting 309 , only two courses deep. Consists of flat stones loosely bonded with lime mortar.	0.6m-0.8m
312	Cut of wall foundation 312 .	0.6m-0.8m
313	Spur wall abutting 309 , only two courses deep. Consists of flat stones loosely bonded with lime mortar.	0.6m-0.8m
314	Cut of wall foundation 315 .	0.6m-1.2m
315	NE-SW running wall foundation of roughly dressed sandstone bonded with good quality lime mortar, blocks measuring up to 0.3m by 0.3m by 1.5m.	0.6m-1.2m
316	Amorphous dump of modern rubbish (including plastic) cuts through 302 and 303 .	0.5m-1.2m+

Trench 4	Dimensions 20m by 1.9m	Orientation NW/SE
Context	Description	Depth
400	Tarmac and hardcore.	0-0.35m
401	Natural, c60% well rounded stone, <0.4m, very poorly sorted in a dark orange-brown sandy-silt matrix.	1.0m+
402	Cut of wall foundation 402 .	0.35m-1.1m
403	Wall foundation constructed of roughly dressed sandstone loosely bonded with lime mortar. Blocks measuring up to 0.45m by 0.2m by 1.5m	0.35m-1.1m
404	Mixed deposit of dark grey-brown sandy-silt with frequent brick rubble, gravel and concrete inclusions.	0.35m-0.7m
405	Dark grey-brown slightly sandy-silt c5% well-rounded stone <0.1m, poorly sorted.	0.7m-1.0m

Trench 5	Dimensions 20m by 1.6m	Orientation NE-SW
Context	Description	Depth
500	Tarmac and hardcore.	0-0.35m
501	Concrete slab.	0.35m-0.65m
502	Dark grey-brown sandy-silt with frequent modern debris including brick, concrete, tarmac and plastic inclusions.	0.65m-1.3m
503	Natural, c85% well rounded stone, <0.4m, very poorly sorted in a dark orange-brown sandy-silt matrix.	1.3m+

Trench 6	Dimensions 20m by 1.9m	Orientation NW/SE
Context	Description	Depth
600	Tarmac and hardcore.	0-0.25m
601	Concrete slab.	0.25m-0.65m
602	Dark grey-brown sandy-silt with frequent brick and concrete rubble inclusions.	0.65m-1.2m
603	Natural, c85% well rounded stone, <0.4m, very poorly sorted in a dark orange-brown sandy-silt matrix.	1.2m+
604	Brick-lined soakaway.	1.0m+

Trench 7	Dimensions 20m by 1.9m	Orientation NW/SE
Context	Description	Depth
700	Dark grey-brown sandy-silt, very compacted with c20% rounded stone <1.5m. Frequent concrete and brick rubble inclusions. Undulating interface with underlying natural, 701 .	0-0.5m
701	Natural, c85% well rounded stone, <0.4m, very poorly sorted in a dark orange-brown sandy silt matrix.	0.5m+

Trench 9	Dimensions 20m by 1.9m	Orientation NW/SE
Context	Description	Depth
900	Dark grey-brown sandy-silt, very compacted with c20% rounded stone <1.5m. Frequent concrete and brick rubble inclusions. Undulating interface with underlying natural.	0-0.25m
901	Natural, c85% well rounded stone, <0.4m, very poorly sorted in a dark orange-brown sandy-silt matrix	0.25m+

Trench 10	Dimensions 20m by 2.3m	Orientation NE/SW
Context	Description	Depth
1000	Modern ground make-up of demolition rubble.	0-0.2m
1001	Dark grey-brown sandy-silt, very compacted with c20% rounded stone <1.5m. Frequent concrete and brick rubble inclusions. Undulating interface with underlying natural, 1002 .	0.2m-0.7m
1002	Natural, c85% well rounded stone, <0.2m, moderately sorted in a dark orange-brown sandy-silt matrix.	0.7m-1.1m
1003	Natural, c85% well rounded stone, <0.1m, very poorly sorted in an orange-brown sandy-silt matrix.	1.1m+

Trench 11	Dimensions 30m by 1.9m	Orientation NW/SE
Context	Description	Depth
1100	Concrete slab and shop floor.	0-0.3m
1101	Dark grey-brown sandy silt, very compacted with c20% rounded stone <1.5m. Frequent concrete and brick rubble inclusions. Undulating interface with underlying natural, 1102 .	0.3m-0.6m
1102	Natural, c85% well rounded stone, <0.1m, very poorly sorted in an orange-brown sandy-silt matrix.	0.6m+

Trench 14	Dimensions 20m by 2.0.m	Orientation NW/SE
Context	Description	Depth
1400	Red brick cellar wall, visible in the north-western end of the trench, below deposits of concrete and tarmac, aligned in a north-east/south-west direction to a minimum 4.0m high. Bonding pattern that of English garden wall. The trench was not considered safe for further inspection.	0.4m to 4.0m+
1401	Wall comprised of ashlar sandstone blocks, with some red brick also within its fabric, located below deposits of tarmac and concrete. It measured 0.8m wide, although was visibly wider near the base, built on a layer of concrete. Considered to be part of a cellar wall of the late nineteenth century extension to the Methodist Church shown on the 1900 OS map of the area. The wall had been truncated and then capped with concrete, and appears to have been used as a foundation for the recently demolished buildings. The trench was not considered safe for further inspection.	0.4mm to 3.0m

1402	Red brick wall, sectioned by machine. Comprises two outer layers of red brick, with central cavity, considered a partition wall within a cellar. The trench was not considered safe for further inspection.	0.4m to 3.6m
1403	Overburden concrete, tarmac and building rubble comprised of very dark grey clay and coarse sand, as well as abundant nineteenth/twentieth century brick fragments.	0.4m to 4.0m
1404	Concrete beam	
1405	Concrete beam	
1406	Concrete beam	
1407	Concrete beam located at the south-eastern end of the trench	
1408	Concrete cellar floor at depth of 2.6m located between 1405 and 1406 .	
1409	Very dark grey silt, possible garden soil, although more likely a re-deposited garden soil mixed with other coarse sandy sediment. The trench was not considered safe for further inspection.	4.0m +
1410	Concrete and green tile floor	1.9m

Trench 15	Dimensions 20m by 2.0.m	Orientation NW/ SE
Context	Description	Depth
1500	Concrete	0m to 0.30m
1501	Made ground comprised a very dark grey silty-clay and building rubble.	0.30m to 4.40m
1502	Very dark silty-clay, possible old soil horizon	0.40m to 5.0m
1503	Mid-orange brown clay with 50% to 75% rounded stone of a maximum size of 0.30m by 0.28m by 0.75m. An unsorted clay and gravel, most likely glacio-fluvial in origin.	5.0m+

APPENDIX 5: FINDS SUMMARY

Trench	Context	Material	Quantity	Description	Date range
2	202	Pottery	3	Brown-glazed red earthenware (coarseware)	Late seventeenth – early twentieth century
2	202	Pottery	1	Slip-lined buff-bodied earthenware	Late seventeenth – early eighteenth century
2	202	Pottery	1	Slip-coated buffish-orange-bodied earthenware	Late seventeenth – eighteenth century
3	303	Pottery	5	Brown-glazed red earthenware (coarseware)	Late seventeenth – early twentieth century
3	303	Pottery	1	White salt-glazed stoneware	Eighteenth – early nineteenth century
3	303	Pottery	1	White-glazed white earthenware	Late eighteenth – early twentieth century
4	405	Pottery	1	White-glazed white earthenware	Late eighteenth – twentieth century



Plate 1: South-west-facing view of Trench 2, showing walls **206** and **208**



Plate 2: South-east-facing image of Trench 3, showing walls **309**, **311** and, **313**

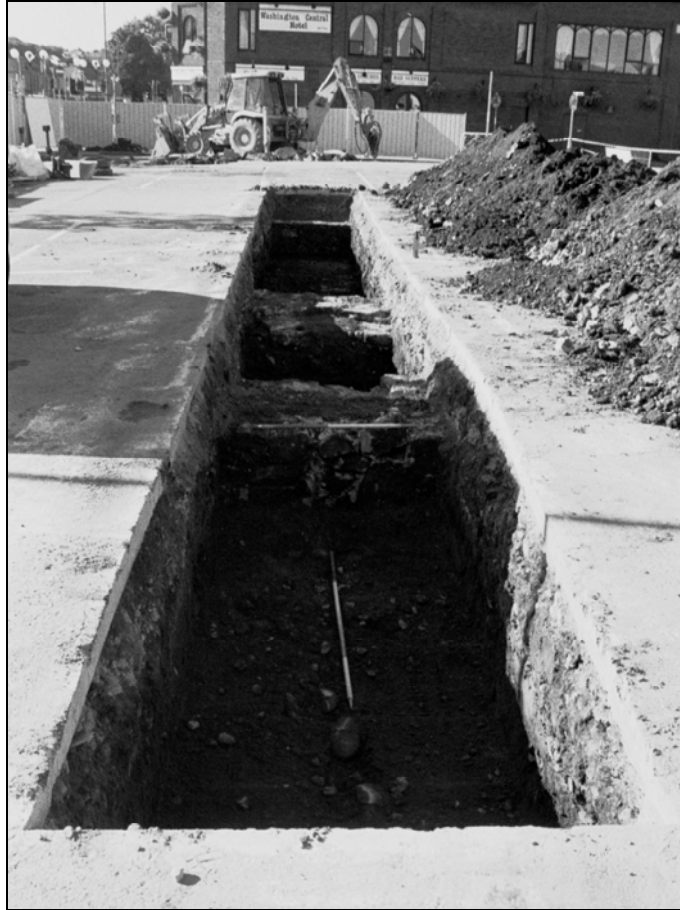


Plate 3: South-west-facing view of Trench 3



Plate 4: Working shot of excavation, Trench 9



Plate 5: Trench 14, showing the green tiled floor, *1410*, between two concrete beams



Plate 6: Trench 14, facing east, showing wall *1401*