Savile House

Music Practice Rooms

New College

Oxford

Written Scheme of Investigation or an Archaeological Evaluation

oxfordarchaeology

southsouthsouth

September 2014

Client: Austin Newport Ltd

Issue No: 1
OA Job No: TN 17266
NGR: Centred on SP 5172 0671

Written Scheme of Investigation

New College, Oxford. Savile House Music Practice Rooms

Written Scheme of Investigation for an Archaeological Evaluation

Centred on SP 5172 0671

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New College, Oxford. Savile House Music Practice Rooms

Written Scheme of Investigation for an Archaeological Evaluation

Centred on SP 5172 0671

1 Introduction

1.1 Project details

1.1.1 Oxford Archaeology (OA) has been requested by Austin Newport Ltd on behalf of New College to produce a Written Scheme of Investigation (WSI) for an archaeological investigation at New College music practise rooms, Savile House, Mansfield Road (SP 5172 0671 - Fig. 1).

1.1.2 The work is being undertaken in advance of a planning application for a proposed extension to the existing building. An assessment of the heritage resource at the site has been produced by Dr Roland Harris (Harris 2014), which also outlined the design of the proposed development and proposed a mitigation strategy which was designed to minimise the impact of the latter upon the former.

1.1.3 The site lies on the line of the inner bank of the northern section of the defensive circuit constructed around Oxford during the English civil war. To further inform any potential mitigation strategy, and following consultation with the archaeologist at Oxford City Council (David Radford), OA have been commissioned by Austin Newport Ltd to undertake the excavation of two trial trenches on the line of the bank to assess the level of survival, and the elevation of any pre-existing archaeological horizons which may be impacted on by the proposed development. A topographical survey of the surviving bank will also be undertaken.

1.1.4 This WSI outlines how OA will implement the works within the requirements of local and national planning policies. Two policies in the Oxford Local Plan 2001-16 (adopted November 2005) are of particular relevance to below ground archaeology: Policies HE2 and HE3 (Harris, August 2014). Furthermore all work will be carried out in full accordance with the appropriate sections of the Institute for Archaeologists (IFA) Code of Conduct, the IFA Code of Approved Practice for the Regulation of Contractual Arrangements in Field Archaeology, the IFA Standards and Guidance for excavation, the IFA Standards and Guidance for an Archaeological Watching Brief, and the British Archaeologists and Developers Liaison Group Code of Practice.

1.2 Location, geology and topography

1.2.1 The proposed development site lies between the Cherwell and the Thames (Isis), near the edge of the second (Summertown-Radley) gravel terrace, and a short distance west of the first (flood plain type) terrace, overlying Oxford clay and Kellaway beds (BGS map sheet 236).

1.2.2 The site is situated on the north edge of the historic centre of Oxford, and lies at approximately 62m OD (see 2.3.6 - 2.3.9 below).

2 Archaeological and Historical Background and Potential

2.1 Archaeological and historical background

2.1.1 An Archaeological Assessment and Mitigation Strategy has been prepared by Dr Roland B Harris for this project (Harris, August 2014), which details the archaeological

and documentary background of the site. It summarizes the history of the site as evidenced by documentary and cartographic sources and by previous archaeological investigations on the site and in the vicinity. The archaeological and historical background from this document are reproduced below, full references and illustrations can be found in the source document (Harris, August 2014).

2.2 Previous archaeological investigations

Savile Road, 1907

2.2.1 Excavations in Savile Road during drainage works led to the discovery of ceramic (presumably pipe-clay) wig curlers. Such wig curlers are post-medieval in date, and especially common in the 18th century.

Manchester College 1913

2.2.2 Excavations at Manchester College during construction of Percy Worthington's new dining hall (i.e. the Arlosh Hall) produced post-medieval pottery and clay pipe.

New College School 1959

2.2.3 During addition of a hall and classroom block to New College School, which had moved to its present location in Savile Road in 1903, works apparently revealed sections of the Civil War ditch on the north side of the site. The fact that the ditch was sectioned is, perhaps, a little surprising given that the boundary between New College School and Mansfield College appears to run along the top of the 17th-century bank, with the ditch to the north in the grounds of Mansfield College.

Wadham College 1972 and 1974

2.2.4 During building works, evidence was uncovered of the Austin (i.e. Augustinian) Friary that, between 1268 and the Dissolution, occupied the site later used for the 17th-century college. Two burials were discovered just south-east of the 17th-century kitchen wing and, east of this against the eastern boundary of the friary site, remains of a late medieval wall with windows were identified, which had been incorporated into a post-1613 college service building.

Savile Road 1975-6

2.2.5 During unspecified works John Blair found a 1761 bottle seal in a builder's trench. A bottle neck was recovered from a trench outside the entrance to New College School. It is assumed that this record, derived from the Oxford Urban Archaeological Database, refers to two separate trenches and finds.

Wadham College 1989

2.2.6 The remains of the Austin Friary building identified in 1972-4 were demolished, and a watching brief recorded details of the foundations and a 19th-century stone-lined and brick-vaulted cess pit.

Manchester College 1991

2.2.7 Archaeological excavation prior to construction of a new accommodation block revealed evidence of staggered boundaries depicted on early maps. The boundaries were cut about by later pits and quarries.

Mansfield College, Hands Building 1992

2.2.8 An archaeological evaluation was carried out in 1992 to inform the planning of a new accommodation block (the Hands Building, constructed 1993). The trenches were located in the southern part of Mansfield College, north of – and cutting into – the Civil War defences that mark the boundary between Savile House and Mansfield College. Two trenches were dug: Trench 1 was 3.4m long and 1.3m wide, located at right-angles to the bank and cutting into it by 2.8m; Trench 2 was 15.5m long and 1.5m wide, and was located slightly to the north, parallel to and slightly west of the (subsequent) Hands Building. The investigations revealed that, north of the upstanding bank, there was a ditch at least 7m wide and 2m deep, with sides angled about 45° and a flat bottom. The bottom of the ditch was at c.58.7m OD, with the 17th-century ground level to the north at c.60.6m OD.

Mansfield College, Rothermere American Institute 1998-9

2.2.9 Excavation in advance of building the new institute along the Love Lane (i.e. western) side of the college site identified three main periods of activity. Prehistoric evidence was limited to a single pit, identified as Neolithic on the basis of the 13 worked flints within the fill. Romano-British features were more numerous, comprising gullies, boundary ditches, pits, post-holes, with two main phases of activity dating to the late 1st to early 2nd centuries AD, and the late 3rd to 4th centuries AD. The features and finds are consistent with a low status rural settlement, such as a group of farmsteads or a village.

Chemistry Research Laboratory, South Parks Road 2001

2.2.10 Excavation in advance of building the new laboratory revealed evidence of three main phases of activity. Prehistoric features were limited to two mid-late Neolithic to early Bronze Age pits and a ditch, with the assemblage of 303 worked flints mostly coming from one of the pits. Evidence for a Romano-British settlement comprised pits, post holes, gullies, small boundary ditches, and a decapitated inhumation, all dating from the 2nd to 4th centuries AD. Although the Romano-British settlement was divided into two main phases of activity, with different organization of the land, the northern part of the site was consistently less used and this suggests that the core of the settlement lay to the south or south-east: the features and finds are consistent with a low status rural settlement, such as a group of farmsteads or a village. Finally, the site produced evidence for the outer Civil War defences, with the ditch here measuring around 11m wide and 2.4m deep, begun outside the earlier defences (of 1642) in 1644-5. There was some evidence for the expected bank south (i.e. inwards) of the ditch, together with evidence for removal of a primary structure at the bottom of the ditch: this is likely to have been a palisade or sharpened storm poles (both hindering attackers and exposing them to fire).

Mansfield College, Garden Building 2005-6

2.2.11 An archaeological watching brief was carried out during construction of the Garden Building in 1996. The site was located in the southern part of Mansfield College, north of the Civil War defences that mark the boundary between New College School and Mansfield College.

Mansfield College 2008

2.2.12 A watching brief was carried out on geotechnical test pits and bore holes for two proposed development sites: an accommodation block in the Fellows' Garden at the south-west corner of the college, and an extension to the dining hall at the north-east

corner of the college. All the archaeologically significant deposits and structures observed related to the 19th-century construction of the college.

Harris-Manchester College 2013

2.2.13 Four evaluation trenches were excavated in advance of the construction of an accommodation block, a clock tower and gate on the Mansfield Road frontage of the college. The remains of a probable medieval oven or kiln and a number of gravel extraction borrow pits or quarries recorded. The adjacent boundary wall was seen to be constructed upon 18th-century landscaping deposits. Also cutting the landscaping deposits was a narrow stone built and brick vaulted cellar of probable 18th-century date.

Mansfield College 2013

2.2.14 A watching brief was carried out during construction of an extension to the dining hall at the north-east corner of the site in 2013. Other than a couple of very truncated, undated gullies cut in to the underlying gravels and overlain by approximately 600mm of made ground, nothing was found.

2.3 The site before the present buildings

Prehistoric period

2.3.1 The most substantial prehistoric archaeological evidence in the immediate vicinity of the proposed development site is the mid-late Neolithic to early Bronze Age pits and ditch on the Chemistry Research Laboratory site at 2-4 South Parks Road. It is unclear how this relates to significant evidence for prehistoric occupation elsewhere in Oxford, including a Middle Neolithic enclosure at the Radcliffe Infirmary site, and Bronze Age barrow ring-ditches identified by aerial photography and excavation at the University Parks and Science Area, Port Meadow, the Sackler Library (Beaumont Street), and the Radcliffe Infirmary.

Roman period

2.3.2 The Roman-British findings at the sites at Mansfield College (Rothermere American Institute, 1998-9) and the Chemistry research Laboratory in South Parks Road (2001) are consistent in suggesting modest rural settlement, perhaps a village or group of farmsteads in this general area, although no settlement core has been established. The excavators suggest that this may have lain south or south-east of the sites: this area includes the proposed development site. The Romano-British rural settlement may well represent evolution from a Middle-Late Iron Age farming landscape.

Saxon period

2.3.3 The excavations in the vicinity of the proposed development site have produced no significant Saxon evidence. This is consistent with the fact that the site lies c.250m north of the Anglo-Saxon burh of Oxford that was founded as part of the system of 31 fortresses, which the most recent analysis suggests were built between May 878 and August 879 as a crucial part of Alfred's successful military strategy to drive the Vikings from Mercia and London.

2.3.4 The location of a burh at Oxford was doubtless stimulated by the important Mid Saxon crossing of the Thames in St Aldate's. The extent of the burh is not entirely certain, although it has long been accepted that the area between the later medieval Eastgate and Schools Street/Oriel Street (north of which the proposed development lies)

represents an extension, perhaps of the early 11th century or, even the 10th century. The importance of determining the extent of the Saxon burh can be over emphasized, however, since it is probable that it had suburbs from the outset.

Norman and later medieval period

2.3.5 The most significant medieval archaeology in the vicinity relates to the Austin Friary, founded in 1268 and located c.150m south-west of the proposed development site, and now occupied by Wadham College: investigations there in 1972, 1974 and 1989 confirmed the eastern edge of the friary precinct. To the east of this, the development of properties along the north side of Holywell Street appears to have occurred between the late 12th and the early 13th centuries, prior to the rebuilding of the city walls (along the line of the Saxon ramparts) in the first half of the 13th century. This suburban expansion reflected prosperity in Oxford that was followed by decline in the second half of the 13th century and, especially, the 14th century. The extent of the medieval tenements is not entirely clear. Agas's map of 1578 shows shallow plots only in one case extending as far north as the southern boundary of the Austin Friary. There are dangers in assuming that, even if an accurate depiction of the late 16th-century plots, this applied to the plots in the early 13th century and later in the medieval period. That said, relatively shallow plots with agricultural land to the north are consistent with the documentary sources, which show intensive barley production by Merton College on its demesne lands in Holywell Manor; the cartographic evidence (from Loggan's 1675 bird's-eye view to the 1876 Ordnance Survey 1:500 town plan), which suggests that the properties along the north side of Holywell Street were formed at the end of ridge and furrow fields, with the tenements themselves only expanding as far as Savile Road and to the north in the post-medieval period); and the limited medieval archaeological evidence, such as that for boundaries discovered at Manchester College in 1991.

16th and 17th centuries

2.3.6 The Dissolution saw the demise of the Austin Friary, south-west of the proposed development, followed by the establishment of Wadham College on the same site in 1610. To the east, Loggan's 1675 bird's-eye view suggests that the properties along the northern side of Holywell Street had expanded northwards from their late medieval extents. To the north of the walled gardens and yards of the tenements, cultivated plots on Loggan's map are shown as continuing most of the tenement boundaries northwards first to a slightly sinuous east-west path located along the south side of modern Savile Road, and then – with fewer property boundaries – to the Civil War defences created by the Royalists in 1642: these defences were supposedly destroyed by the Parliamentarians during their brief occupation from September to mid-October 1643, and then immediately rebuilt. These works are now known as the inner defences due to the addition of outer defences in 1644-5, which had a more obvious military design with their alternating salients and re-entrants. It appears that the less sophisticated inner Civil War defences here followed a pre-existing east-west boundary. This coincidence with a boundary could explain why the inner defence line survives intermittently as a visible bank east and west of Mansfield Road: reuse of another earlier boundary – along what is now Love Lane (along the west side of Mansfield College) – appears to explain the survival of the continuation of this section of the defensive bank along a north-north-west alignment. By contrast, the more substantial outer defences, which were evidently not related to boundaries, were more completely obliterated and are only known from maps and recent excavations such as those at the Chemistry Research Laboratory, South Parks Road, in 2001.

2.3.7 In the vicinity of the proposed development the northern slope only of the bank of the inner defences is visible today, rising from the lawn at the southern edge of the

Mansfield College grounds by up to c.2.4m. Near the top of the rampart, an iron railing marks the western length of the boundary between the college and Savile House, with the line to the east marked by the brick north wall of the scouts' room, former coal stores and bike store of Savile House. These brick single-storey outbuildings of 1935 seem to have had little impact on the 17th-century defences, which rise up against them on the north side. Only at the east end are they cut within the Mansfield College grounds by the 1960s electricity substation and the John Marsh building: prior to this Ordnance Survey maps show the ramparts continuing east to Mansfield Road and, before this was built in the late 19th century, across the road and to the east (the bank partly survives in the playing fields).

2.3.8 The top of the rampart next to the proposed development appears to lie just inside the grounds of Savile House, but has been formalized by a low brick retaining wall, as if to a raised flower bed, c.650mm high. To the south of this retaining wall, the path at the side of Savile House is around 62.1m OD (i.e. c.2.0m above the ground level at the south end of the garden in Mansfield College), and this level is typical of that for the area southwards towards Savile Road. In other words, this part of the inner Civil War defences marks a significant change in the modern general ground level.

2.3.9 The 1992 evaluation in Mansfield College was located north of the rear wing of Savile House, but, given its location, was only able to define the profile of part of the northern slop of the rampart and the ditch to the north. It appears – as would be expected – that the bank was previously higher, but it is unclear whether its south face had a similar profile: the possibility that the defences followed a pre-existing boundary and the scale of the difference in modern ground levels north and south of the bank here suggest that there may well have been a difference in the ground levels in the mid-17th century.

18th century to present

2.3.10 William Faden's map of Oxford in 1789 records a very similar situation in the vicinity of the proposed development site to that shown on Loggan's view of 1675, but by the time of the 1876 Ordnance Survey 1:500 town plan, the finer subdivisions seen nearer Holywell Street had been applied to the plots at their northern ends. There is no evidence of agricultural activity south of the Civil War defences by this date, with the 1876 map showing gardens, a few outbuildings and greenhouses. This was all to change within a few years, with the construction of Mansfield Road in 1887-93. The new road was closely associated with the building of Mansfield College (1887-9) to the north of the inner Civil War defences, and Manchester College (1891-3) to the south of the east-west footpath.

2.3.11 To the south of the inner Civil War defences, the c.1890 developments saw the east-west path expanded to form Savile Road. Initially Savile Road (the southern pavement of which lies along the route of the earlier path) extended only as far west as the western extent of Manchester College (marked by the gate, dated 1891, west of the library), but was subsequently continued westwards to its present extent to allow the building of 1 Savile Road in 1902 and New College School in 1903 (both by Charles Nicholson, of Nicholson & Corlette). Savile House was built on the Mansfield Road frontage in 1897, followed in 1922 by Warham House on the corner with Savile Road. The new properties marked the beginning of New College's interest in the area north of Holywell Street, following purchase of land here from Merton College in the 1890s. The successive developments removed all earlier features, including the historic north-south boundaries, on the site, apart from the bank of the Civil War inner defences, which remained marking the property boundary shared with Mansfield College.

2.3.12 To the north of the inner Civil War defences, Basil Champneys's original buildings at Mansfield College (1887-9) were concentrated on the northern part of the college site,

with gardens extending southwards towards the defences. A modest intrusion followed in 1961, with building of the electrical substation at the south-east corner of the site, cutting into the eastern end of the Civil War bank. Much more substantially, a neo-vernacular student accommodation block (later named the John Marsh Building) was built in 1962 (designed by Thomas Rayson), creating a range extending along the Mansfield Road frontage of the college north of Savile House, and an east-west range effectively creating the south side of a quad. Subsequent construction of the Hands Building (1993: designed by Brewer Smith and Brewer) and the Garden Building (2006: designed by Oxford Architects) saw the college buildings extended southwards from Rayson's east-west range towards the inner Civil War defences.

2.3.13 To the east of the proposed development site, the east side of Mansfield Road saw protracted development. Opposite the proposed development site, a substantial villa, The King's Mound, 9 Mansfield Road, was built by Thomas Jackson in 1892-3: This was followed by the still larger 3 Mansfield Road, which was built in 1897-8, as a private house for the Rev. John Henry Mee, by builders Symm and Co., to the designs of C. J. Phipps and A. Blomefield Jackson. It became the university's School of Geography in 1922, which led to substantial extensions being built in 1936-7, 1965-8 and 2007-9 (the latter replacing the 1930s extension): since 2006 the building has been occupied by the Department of International Development. The northern part of the garden of 3 Mansfield Road was appropriated for a pair of rather smaller houses (i.e. 5 and 7 Mansfield Road) built by E. P. Warren in 1925. The most recent development has been the Oxford University Club, built opposite the John Marsh building of Mansfield College in 2003-4 (designed by Maguire and Co./JBKS Architects): the substantial building, faced in Forticrete blocks and with a zinc roof, is of curved form.

2.4 Savile House

2.4.1 Savile House (unlisted) was built in 1897 by Dr Gilbert Bourne, the well-known oarsman and professor of physiology,i on land leased to him by New College in 1896. There is no record of the architect, and – on stylistic grounds – it does not appear to have been designed by Basil Champneys (it lacks his Arts and Crafts details), who was responsible for other New College work at this date and was the architect of adjacent Mansfield College: it is possible, given their work on New College's Robinson Tower and the range to the east in 1896-7,ii that it was constructed – and perhaps designed – by the builders Benfield & Loxley. On surrender of the lease, Savile House was sold by Bourne to New College in 1921, and then extended by the Oxford architect N. W. Harrison, with Sir Charles Peers acting as advisory architect: this probably took place in 1935, as the apparently final proposals are dated November 1934.

2.4.2 As built in 1897, Savile House comprised a north-south block of three storeys, with a small cellar below the scullery at the northern end. The main access was through a central eastern door, and the principal rooms were located at the southern end. The building is in an undistinguished subdued Gothic style, with gables and Tudor-arched mullioned windows, and more obviously 19th-century features, such as the canted bay windows of the south elevation. It is faced with rubble with ashlar dressings, apart from the rear (west) elevation, which is of yellow stock brick with ashlar dressings.

2.4.3 The extension of c.1935 added a fourth gabled bay to the northern end of the earlier building, closely matching the form, detail and materials of the 1897 work: the main means of differentiating the work – other than the surviving design drawings – is the difference in the pointing. Running westwards from this new bay, a substantial accommodation block was added, having six sets of two rooms (sitting room and bedroom) to each of its three floors, with staircase and (shared) bathroom towers articulating the north elevation. Between these towers the bedrooms of the second floor

are lit by dormers above a deep and intermittent cornice. On the south elevation, the absence of stair and bathroom projections allows the cornice and dormers to continue uninterrupted. The use of red brick with stone dressings further differentiates the north wing from the (extended) original east block.

2.4.4 The single-storey outbuildings to the north of Savile House, comprising two garages, a scouts' room, a pair of former coal stores, and an open-sided bike store, mostly date from the c.1935 works, although the 1934 design drawings show that the northern garage was already in existence at that date. This earlier garage is not shown on the 1921 Ordnance Survey map. The incorporation of an existing garage explains the difference in the brick types of the outbuildings: both garages are in yellow stock brick (the c.1935 garage very carefully built to match the earlier work), while the buildings to the rear are of red brick, as used in the main wing of c.1935 (albeit without the stone dressings). The design drawings show a 6" (150mm) concrete floor, and strip foundations for the walls up to 4' (1.22m) deep.

2.4.5 The 1934 ground-floor plan (Plan 2) shows a foul water sewer and rain water drain, with manholes, between the 1935 extension and the outbuildings. Modern survey shows invert levels rising east to west across the proposed development from 60.13m OD to 60.71m OD, representing depths of up to c.1.6m below ground level. Additional services have been added in this area, comprising electricity, gas and telecommunications.

3 Project Aims

3.1 General

3.1.1 The general aims of the work are to:

- determine the character of any remains present;
- ensure that deposits are removed (where appropriate and practicable) by proper controlled archaeological methods;
- determine or estimate the date range of any remains from artefacts or otherwise;
- determine the potential of the deposits for significant palaeo-ecological information;

3.2 Specific aims and objectives

3.2.1 The specific aims and objectives of the trial trenches and topographical survey are listed below and will assess:

- evidence for the degree of survival and method of construction of the civil war defensive bank. A cross-section through the bank will be produced from the evidence recovered from the topographical survey of the surface and the trial trench results;
- evidence for archaeological horizons pre-dating the construction of the bank in the 16th century;
- evidence for pre-historic and Roman occupation of the area as indicated by earlier excavations in the immediate vicinity;
- evidence for the elevation of the top of the gravel.

4 Project Specific Excavation and Recording Methodology

4.1 Scope of works

4.1.1 The investigation will comprise two trial trenches located over the surviving civil war defensive bank (see Figure 2). Trench 1 will be located within the existing bike shed, and Trench 2 immediately to the south. Heras fencing will be required in order to

maintain access along the northern edge of Savile House. Austin Newport Ltd (the principal contractor) will be responsible for arranging access to the site and ensuring that the bike shed is cleared prior to the works. Austin Newport Ltd will also be responsible for breaking out the existing concrete floor and supplying the required fencing.

4.1.2 Trench 1 will measure 1.5m² in plan and the full archaeological sequence will be excavated to the top of the underlying terrace gravel. It is anticipated that Trench 1 will be in excess of 2m deep, and will therefore require shoring. This will be provided and installed by OA as per the methodology below (4.3.10 - 4.3.18).

4.1.3 Trench 2 will also measure 1.5m² in plan, and will be excavated to a safe depth which will be dictated by the stability of the ground through which it is cut. Assuming that the base of the trench will still be within the civil war bank at this depth, a hand-augered borehole will then be undertaken to establish the depth of any underlying buried soil horizon, and the elevation of the top of the gravel.

4.2 Programme

4.2.1 It is anticipated that the work will be undertaken by a site supervisor assisted by 1-2 archaeologists, and that it will be completed within 5 days. A further day will be required for the partial backfilling of Trench 1 and the removal of the shoring. Austin Newport Ltd will be responsible for the remaining backfilling, and any re-instatement required. The archaeological works will be managed for Oxford Archaeology by Ben Ford, Senior Project Manager.

4.2.2 All fieldwork undertaken by Oxford Archaeology (South) is overseen by the Head of Fieldwork, Dan Poore MIFA.

4.3 Site specific methodology

4.3.1 A summary of OA's general approach to excavation and recording can be found in Appendix A. Standard methodologies for geomatics and survey, environmental evidence, artefactual evidence and burials can also be found below (Appendices B, C, D and E respectively).

4.3.2 Site specific methodologies will be as follows:

General

4.3.3 All plans and sections will be tied to the Ordnance Survey (OS) grid and OS datum.

4.3.4 As Trench 1 is likely to require shoring, the stratigraphic sequence will be recorded by one of two methods:

- trench sections will be drawn prior to the installation of the trench sheets. Once the shoring is installed and excavation continued, the sequence revealed below the sheets will be added to the original section prior to any subsequent lowering of the trench sheets.
- depending on the nature of the ground - and the complexity of the archaeological deposits - the gap left as an access and egress point will provide a sufficient window through the stratigraphic sequence for it to be drawn and photographed in its entirety.

4.3.5 Appendix C provides an environmental sampling strategy. In general different environmental sampling strategies may be employed according to the perceived importance of the strata under investigation. Bulk samples, preferably of 40 litres if possible, will be taken for flotation for charred plant remains. Bulk samples will be taken from any waterlogged or mineralised deposits present for macroscopic plant remains. Columns for pollen analysis and mollusc samples will be collected will be taken if appropriate. Other bulk samples for small animal bones and other small artefacts may

be taken from appropriate contexts. Sub-sampling will be undertaken to retrieve evidence of metal-working. The sampling process will be constantly reviewed on-site with the advice of Dr. Rebecca Nicholson, Head of the Environmental Dept. at Oxford Archaeology.

4.3.6 Artefact assemblages will be recovered (by context) by hand to assist in dating the stratigraphic sequences and for obtaining ceramic assemblages for comparison with other sites. The finds will provide an invaluable contribution to the interpretation of the functions and activities taking place on (and off) the site, as well as reveal aspects of trade and economy. All artefacts will be retained from excavated contexts unless they are of recent origin. In these cases sufficient of the material will be retained to date and establish the function of the feature.

4.3.7 Appropriate procedures will be followed in the event of discovery of objects, which fall within the scope of the Treasure Act (1996). It should be noted that there is a presumption that objects of treasure found during the course of archaeological excavations will be kept with the archaeological archive. Where removal of intrinsically valuable objects cannot be effected on the same working day as the discovery, suitable security measures will be taken to protect the finds from theft.

4.3.8 In certain circumstances where unusual or extremely fragile and delicate objects are found, their recovery may be by appropriate specialists.

4.3.9 Opportunities will be sought for scientific dating, including secure stratigraphic sequences containing contexts yielding CPR (charred plant remains) relating the occupation and use of structures. Provision will be made for a minimum of five C14 dates.

Installation and maintenance of Shoring

4.3.10 Place trench sheets against trench sides - they should be supported in position by someone in the trench. Clean, vertical trench sides make the whole operation much easier. The hole in the trench sheet goes at the top, so that they can be pulled out (by machine if appropriate). Where ground allows, drive the sheet down so that it is 'toed in', using a protective cap on top of the sheet. This can be very noisy - ear defenders will be needed, as well as goggles and gloves. It is useful, but not essential, if the sheets protrude at least 1.2 m above the trench edge, as they will then act as edge protection for the excavation itself. Spacing of trench sheets is very important. This ranges from complete coverage of the trench side (close poling - for extremely loose ground) to 'hit-and-miss' (open poling - spacing equivalent to width of trench sheet) or, though less commonly, wider spacing. Err on the side of caution - if you are unsure, seek advice from the OA Health and Safety Co-ordinator. Also note that trench sheets are heavy - take care when lifting - use two people.

4.3.11 Place upper timber waler in position (horizontal if possible) on two opposing sides (these need to be supported by people in the trench) and then fit two props against these walers. Measure the distance between the outer face of the opposing walers at either end of same, and cut two further timbers to the appropriate length. Place trench sheets against the other two opposing sides (again, these must be supported by someone in the trench) and wedge the two new timbers between those which have already been propped. Be aware that the props are likely to loosen as you install the second set of timbers. Either remove them or keep tightening them as they loosen. A third set of timbers should then be wedged parallel to the original set, in order to support the second set of timbers. Place wedges where walers and trench sheets do not meet.

4.3.12 If required, repeat 2, for lower walers. Then tighten all props (if still in use) and knock in wedges as needed.

4.3.13 Tie down the handles of the props (if in use) so that they don't stick out.

4.3.14 Should you need to deepen the trench once the first set of sheets, props and whalers has been installed, it should be possible to dig down below the bottoms of the sheets by up to 0.5 - 1 m depending on ground conditions. The 'hit and miss' scheme will then allow you to slide additional (usually longer) sheets into the gaps and down behind the walers (again toed in).

4.3.15 Alternatively, temporarily support the existing frame(s) from below (acro props or timbers can be used to brace between the corners of the existing frame and the base of the trench), remove any wedges, and by means of percussion at the top of the sheets, the existing sheets can be lowered (this should be undertaken one sheet at a time). It is important to ensure that the newly exposed section of trench (i.e. that below the orignal depth of the sheets) is as vertical as possible to prevent the dropped sheet(s) kicking out. A further set of walers and props can then be inserted just above the new base of the trench. Obviously ingress of ground water will have a destabilising effect and may mean that further excavation is not possible using this system.

4.3.16 The shoring must not be climbed upon or used as a means of entry or exit from the trench. The trench should be accessed using a ladder which is fixed (i.e. tied down) and which protrudes at least 1 m above the trench edge.

4.3.17 Check trench sheets, props and wedges at the beginning of each working session, or if there has been an obvious shift in the ground. Tighten/drive in as necessary. Record your inspection on 'Trench support (Shoring) equipment inspection form.'

4.3.18 The shoring, once in position, can also cause accidents as it can make excavation quite awkward. Hard hats should be worn at all times.

Human Remains

4.3.19 Human remains will be left in place and the Coroner informed. Where removal is necessary a licence shall be obtained from the Home Office, and the remains will be removed under the supervision of an experienced Osteoarchaeologist.

5 Project Specific Reporting and Archive Methodology

5.1 Programme

5.1.1 The report will be completed within four weeks of the completion of the fieldwork.

5.1.2 Three bound copies of the completed report(s) will be provided to New College, two copies and a .pdf copy for the UAD to David Radford, Oxford City Archaeologist; and a .pdf copy to Dr Roland Harris.

5.1.3 A summary report will be sent to the editors of ***South Midlands Archaeology*** no later than three months after the end of the calendar year in which the work is undertaken.

5.2 Report type and content

5.2.1 A Publication Report will be produced if significant archaeological remains are uncovered, and results of the above ground historic building recording will be taken into account where relevant and/or pertinent in the drafting of this report. The Publication Report shall be published in a suitable form in an appropriate journal or monograph to be agreed with the Oxford City Archaeological Advisory Service. The report will be provided to the Oxford City Council Archaeologist (OCCA) within one year of the completion of fieldwork (unless a longer time period has been agreed in writing with the OCCA). If no significant archaeological remains are uncovered within the excavation area, a client report (grey literature) will suffice.

5.2.2 The content of the report(s) will be as defined in Appendix F.

5.3 Specialist input

5.3.1 OA has a large pool of internal specialists, as well as a network of external specialists with whom OA have well established working relationships. A general list of these specialists is presented in Appendix G; in the event that additional input should be required, an updated list of specialists can be supplied.

5.4 Archive

5.4.1 The site archive will be deposited with Oxfordshire County Museum Service following completion of the project.

5.4.2 All digital products of the archive will be submitted on CD-ROM or DVD-ROM to Dr Roland Harris within eight weeks of the completion of the site works. The data will include:

- all line drawings (plans, sections and elevations) as electronic files/scans;
- all photographs as high quality non-proprietary raw files (DNG) or .tif images (with a minimum of 10 megapixel uninterpolated image size);
- survey data, showing traverses (adjusted or otherwise), sideshots, witness diagrams, derivation of OSBM values etc.

5.4.3 A summary of OA's general approach to documentary archiving can be found in Appendix H.

6 Health and Safety

6.1 Roles and responsibilities

6.1.1 The Senior Project Manager, Ben Ford, has responsibility for ensuring that safe systems of work are adhered to on site. He delegates elements of this responsibility to the Site Archaeologist who implements these on a day to day basis.

6.1.2 The Director with responsibility for Health and Safety at OA is Robert Williams (Chief Operations Officer); he is advised by the OA Group Health and Safety Coordinator, Dan Poore (NEBOSH Level 3).

6.2 Method statement and risk assessment

6.2.1 A summary of OA's general approach to health and safety can be found in Appendix I. A risk assessment will be been undertaken and approved prior to commencing work and will be kept on site, along with OA's standard health and safety file, which will contain all relevant health and safety documentation.

6.2.2 The Health and Safety file will be available to view at any time.

7 Monitoring of works

7.1.1 At least five days notice of the commencement of the excavation and watching brief works will be given to David Radford of Oxford City Council.

7.1.2 David Radford will have free access to the site (subject to Health and Safety considerations) and all records to ensure the works are being carried out in accordance with this WSI and all other relevant standards.

8 References

Harris,R	Aug 2014	*New College, Oxford. Music Practise Rooms* Archaeological Assessment and Mitigation Strategy.
Lattey et al	1936	*A Contemporary Map of the Defences of Oxford in 1644* Oxoniensia Vol.I
OA (Ed. Wilkinson, D)	1992	*Fieldwork Manual*

OA Standard Fieldwork Methodology Appendices

The following methods and terms will apply, where appropriate, to all OA fieldwork unless varied by the accompanying detailed Written Scheme of Investigation.

Copies of all OA internal standards and guidelines referred to below are available on request.

Appendix A. General Excavation and Recording Methodology

A.1 Standard methodology – summary

Mechanical excavation

A.1.1 An appropriate mechanical excavator will be used for machine excavation. This will normally be a JCB or 360° tracked excavator with a 1.5 m to 2 m wide toothless ditching bucket. For work with restricted access or working room a mini excavator will be used.

A.1.2 All mechanical excavation will be undertaken under direct archaeological supervision.

A.1.3 All undifferentiated topsoil or overburden of recent origin will be removed down to the first significant archaeological horizon, in successive, level spits.

A.1.4 Following mechanical excavation, all areas that require examination or recording will be cleaned using appropriate hand tools.

A.1.5 Spoil heaps will be monitored in order to recover artefacts to assist in the analysis of the spatial distribution of artefacts. Modern artefacts will be noted but not retained.

A.1.6 After recording, evaluation trenches and test pits will usually be backfilled with excavated material in reverse order of excavation, and compacted as far as is practicable with the mechanical excavator. Area excavations will not normally be backfilled.

Hand excavation

A.1.7 All investigation of archaeological levels will usually be by hand, with cleaning, examination and recording both in plan and section.

A.1.8 Within significant archaeological levels the minimum number and proportion of features required to meet the aims of the excavation will be hand excavated. Pits and postholes will usually be subject to a 50% sample by volume. Linear features will be sectioned as appropriate. More complex features such as those associated with funerary activity will usually be subject to 100% hand excavation.

A.1.9 In the case of evaluations, it is not necessarily the intention that all trial trenches will be fully excavated to natural stratigraphy, but the depth of archaeological deposits across the site will be assessed. The stratigraphy of a representative sample of the evaluation trenches will be recorded even where no archaeological deposits have been identified. Any excavation, both by machine and by hand, will be undertaken with a view to avoiding damage to any archaeological features or deposits, which appear to be worthy of preservation in situ.

Recording

A.1.10 Written descriptions will be recorded on proforma sheets comprising factual data and interpretative elements.

A.1.11 Where stratified deposits are encountered a Harris matrix will be compiled during the course of the excavation.

A.1.12 Plans will normally drawn at 1:100, but on urban or deeply stratified sites a scale of 1:50 or 1:20 will be used. Detailed plans will be at an appropriate scale. Burials will be drawn at scale 1:10 or recorded using geo-referenced digital photography.

A.1.13 The site grid will be accurately tied into the National Grid and located on the 1:2500 or 1:1250 map of the area.
A.1.14 A register of plans will be kept.
A.1.15 Long sections of showing layers will be drawn at 1:50. Sections of features or short lengths of trenches will be drawn at 1:20.
A.1.16 A register of sections will be kept.
A.1.17 Generally all sections will be tied in to Ordnance Datum.
A.1.18 A full black and white photographic record, illustrating in both detail and general context the principal features and finds discovered will be maintained. The photographic record will also include colour (digital) working shots to illustrate more generally the nature of the archaeological work.
A.1.19 Photographs will be recorded on OA Photographic Record Sheets.

A.2 Relevant industry standards and guidelines

A.2.1 The Institute for Archaeologists' Standard and Guidance notes relevant to fieldwork are:
- Standard and Guidance for Field Evaluation
- Standard and Guidance for Excavation
- Standard and Guidance for an Archaeological Watching Brief.

A.2.2 These will be adhered to at all times.

A.3 Relevant OA manual and other supporting documentation

A.3.1 All fieldwork will be undertaken in accordance with the requirements of the OA Field Manual (ed. D Wilkinson 1992), and the revised OA fieldwork manual (publication forthcoming).
A.3.2 Further guidance is provided to all excavators in the form of the OA 'Fieldwork Crib Sheets - a companion guide to the Fieldwork Manual'. These have been issued ahead of formal publication of the revised Fieldwork Manual.

Appendix B. Geomatics and Survey

B.1 Standard methodology – summary

B.1.1 The aim of OA methodology is to provide comprehensive survey cover of all investigation areas. Additionally, it is designed to provide coverage for any areas, beyond the original scope of the project, which arise as a result of further work. It provides digital plans of all required elements of the project and locates them within an overall grid.
B.1.2 It also maintains all necessary survey data and ensures that the relevant information is copied into the primary record, in order to ensure the integrity of the project archive. Furthermore, it ensures that all core data is securely stored and backed up. It establishes accurate project reference systems utilising a series of control stations and permanent base lines.

B.1.3 The survey will be conducted using a combination of Total Station Theodolite (TST) survey utilising Reflectorless Electronic Distance Measurement (REDM) where appropriate, hand-measured elements and GPS (Global Positioning System).

B.1.4 Before the main work commences, a network of control stations will be laid out encompassing the area. Control stations will be tied in to known points or existing features using rigorous metric observation. The control network will be set in using a TST to complete a traverse or using techniques as appropriate to ensure sufficient accuracy. A GPS, or other appropriate method, will be used to orientate the control network to National Grid or other recognised coordinate system.

B.1.5 All control stations will be checked by closed traverse and/or GPS, as appropriate. The accuracy of these control stations will be accessed on a regular basis and re-established accordingly. All stations will be recorded on Survey Control Station sheets.

B.1.6 Each control station will be marked with a PGM (Permanent Ground Marker). Witness diagrams will include the full 3-D co-ordinates generated, a sketch diagram and measurements to at least three fixed details, written description of the mark and a photograph of the control point in its environs.

B.1.7 Prior to entry into the field all equipment will be checked, and all pre-survey information will be logged onto the field computer and uploaded onto survey equipment as appropriate. The software in the field computer will be verified and all cabling between the GPS and/or TST and computer will be checked. Prior to conducting the survey the site will be reconnoitred for locations for a viable control network and check the line of sight and any possible hindrance to survey. Daily record sheets will be kept to record daily tasks and conditions.

B.1.8 All spatial data will be periodically downloaded onto a field computer, and backed up onto CD, or DVD. It will be cleaned, validated and inspected.

B.1.9 All survey data will be documented on daily survey record sheets. Information entered on these sheets includes key set up information (Instrument height etc.) as well as daily variables and errors/comments. All survey data will be digitally recorded in a raw format and translated during the download process this shall allow for any errors to be cross referenced with the daily survey record and corrected accordingly.

B.1.10 A weekly summary of survey work will be produced to access development and highlight problems. This information also will be recorded on the weekly survey journal. Technical support for the survey equipment and download software shall be available at all times. In those instances where sites are remotely operated, all digital data will be backed up regularly and a copy returned to Oxford on a weekly basis.

B.1.11 A site plan will initially be created by a rapid survey of relevant archaeological features by mapping their extent using a combination of TST and GPS. This will form the basis for deciding excavation strategy and will be updated as the excavation clarifies the extent of, and relationships between, archaeological features.

B.1.12 Excavated archaeological interventions and areas of complex stratigraphy will be hand drawn. At least two Drawing Points (DPs) will be set in as a baseline and measurements taken off this by tape and offset. The hand drawn plans will be referenced to the digitally captured pre-site plan by measuring in the DPs with a TST or GPS. These hand drawn elements will then be scanned in, geo-referenced using the DPs as reference points and digitised following OA's digitising protocols. For further details on hand planning procedure please refer to the fieldwork guidelines.

B.1.13 Where appropriate rectified photography may be used to record standing structures or burials. This will be carried out in line with Standard OA procedures for rectified photography.

B.1.14 Survey data recorded in the field will be downloaded using appropriate downloading software, and saved as an AutoCAD Map DWG file, or an ESRI Shapefile. These files will be regularly updated and backed up with originals being stored on an OA server in Oxford.

B.1.15 All drawings will be composed of closed polygons, polylines or points in accordance with the requirements of GIS construction and OA Geomatics protocols. Once created, additional GIS/CAD work will normally be carried out at the local OA central office or at

on-site remote locations when appropriate. Support for all GIS/CAD work will be available from OA's Oxford Office during normal office hours. The aim of the GIS/CAD work is to produce workable draft plans, which can be produced as stand-alone products, or can be readily converted to GIS format. Any hand-drawn plans will be scanned and digitised on site in the first instance. Subsequent plans will be added to the main drawing as it develops.

B.1.16 All plan scans will be numbered according to their plan site number. Digital plans will be given a standard new plan number taken out from the site plan index.

B.1.17 All digital data will be backed up incrementally on CD or DVD. On each Friday the entire data directory will be backed up and returned to Oxford where it will be copied onto the OA projects server. Each CAD drawing will contain an information layout which will include all the relevant details appertaining to that drawing. Information (metadata) on all other digital files will be created and stored as appropriate. At the end of the survey all raw measurements will be made available as hard copy for archiving purposes.

B.2 Relevant industry standards and guidelines

B.2.1 English Heritage (2009), Metric Survey Specifications for Cultural Heritage

B.2.2 English Heritage (2006), Understanding Historic Buildings A Guide to Good Practise

B.2.3 English Heritage, (2007) Understanding the Archaeology of Landscapes A Guide to Good Recording practise

B.3 Relevant OA manual and other supporting documentation

B.3.1 OA South Metric Survey, Data Capture and Download Procedures

B.3.2 OA South Digitising Protocols

B.3.3 OA South GIS Protocols

B.3.4 These will be superseded by the OA South Geomatics Manual (in progress).

Appendix C. Environmental evidence

C.1 Summary of Standard methodology

C.1.1 Different environmental and geoarchaeological sampling strategies may be employed according to established research targets and the perceived importance of the strata under investigation. Where possible an environmental specialist(s) will visit the site to advise on sampling strategies. Sampling methods will follow guidelines produced by English Heritage and Oxford Archaeology. A register of samples will be kept. Specialists will be consulted where non-standard sampling is required (eg. TL, OSL or archaeomagnetic dating) and if appropriate will be invited to visit the site and take the samples.

C.1.2 Geoarchaeological sampling methods are site specific, and methodologies will be designed in consultation with the geoarchaeological manager on a site by site basis.

C.1.3 Bulk soil samples, where possible of 40 litres or 100% of a deposit if less is available, will be taken from potentially datable features and layers for flotation for charred plant remains and for the recovery of small bones and artefacts. Larger soil samples (up to 100L) may be taken for the complete recovery of animal bones, marine shell and small artefacts from appropriate contexts. Smaller bulk samples (general biological samples) of 10-20 litres will be taken from any waterlogged deposits present for the recovery of macroscopic plant remains and insects. Series of incremental 2L samples may be

taken through buried soils and deep feature fills for the recovery of snails and/or waterlogged plant remains, depending on the nature of the stratigraphy and of the soils and sediments. Columns will be taken from buried soils, peats and waterlogged feature fills for pollen and/or phytoliths, diatoms, ostracods and foraminifera if appropriate. Soil samples will be taken for soil investigations (particle size, organic matter, bulk chemistry, soil micromorphology etc.) and possibly for metallurgical analysis in consultation with the appropriate specialists.

C.1.4 Bulk samples from dry deposits will be processed by standard water flotation using a modified Siraf-style machine and meshes of 0.25mm (flot) and 0.5 or 1mm depending (residue). Heavy residues will be wet sieved, air dried and sorted. Samples taken exclusively for the recovery of bones, marine shell or artefacts will be wet sieved to 2mm. Waterlogged samples (1L sub-sample) and snail samples (2L) will be processed by hand flotation with flots and residues collected to 0.25mm (waterlogged plants) and 0.5mm (snails) respectively; these flots and residues will be sorted by the specialist. Samples specifically taken for insects, pollen, other microflora and microfauna, metallurgy and soil analysis will be submitted as whole earth to the appropriate specialists or processed following their instructions.

C.2 Relevant Industry Standards and Guidelines

C.2.1 English Heritage 2010. Waterlogged Wood: Guidelines on the recording, sampling, conservation and curation of waterlogged wood.

C.2.2 English Heritage 2001. Archaeometallurgy. Centre for Archaeology Guidelines 2001.01.

C.2.3 English Heritage 2011. Environmental Archaeology. A guide to the theory and practice of methods, from sampling and recovery to post excavation, (2nd ed)

C.2.4 English Heritage 2004. Dendrochronology: Guidelines on Producing and Interpreting Dendrochronological Dates.

C.2.5 English Heritage 2006. Archaeomagnetic Dating. Guidelines for Producing and Interpreting Archaeomagnetic Dates.

C.2.6 English Heritage 2007. Geoarchaeology. Using Earth Sciences to Understand the Archaeological Record.

C.2.7 English Heritage 2008. Luminescence Dating. Guidelines on Using Luminescence Dating in Archaeology.

C.2.8 English Heritage 2008. Guidelines for the Curation of Waterlogged Macroscopic Plant and Invertebrate Remains.

C.3 Relevant OA manual and other supporting documentation

C.3.1 Oxford Archaeology 2005. Environmental Sampling Guidelines, 2nd ed.

Appendix D. Artefactual evidence

D.1 Summary of Standard methodology

D.1.1 Before a site begins arrangements concerning the finds will be discussed with the Head of Finds. Information will be provided by the project manager about the nature of the site, the expected size and make-up of the finds assemblage and any site specific finds retrieval strategies. On-site requirements will be discussed and a conservator appointed who can be called on to make site visits if required. Special requirements regarding particular categories of material will be raised at this early stage for instance the likelihood of recovering assemblages of waterlogged material, large timbers, quantities of structural stone or ceramic building material. Specialists may be required to visit sites to discuss retrieval strategies.

D.1.2 The project manager will supply the Head of Finds with contact details of the landowner of the site so that consent to deposit any finds resulting from the investigation can be sought.

D.1.3 The on-site retrieval, lifting and short term packaging of bulk and small finds will follow the detailed guidelines set out in the OA Finds Manual (sections 2 and 3), First Aid for Finds and the UKIC conservation guidelines No.2.

D.1.4 All finds recovered from site will be transported to an OA regional office for processing; local sites will return finds at the end of each day, away based sites at the end of each week. Special arrangements can be discussed for certain sites with the department manager before the start of a project. Larger long running sites may in some instances set up on-site processing units to deal with the material from a particular site.

D.1.5 All finds qualifying as Treasure will be removed to a safe place and reported to the local Coroner according to the procedures relating to the Treasure Act (1996), and the Treasure (Designation) Order 2002. Where removal can not be effected on the same working day as the discovery, suitable security measures will be taken to protect the finds from theft.

D.1.6 Each box of finds will be accompanied by a finds context checklist itemising the finds within each box. The number of bags of finds from each context and individual small find from each context will be recorded. A member of the processing team will check the list when it arrives in the department. There are separate forms for finds recovered from fieldwalking.

D.1.7 The processing programme is reviewed on a weekly basis and priorities are worked out after discussions with the Head of Fieldwork and the Head of Post-excavation. Project managers will keep the Head of Finds informed of any pressing deadlines that they are aware of. All finds from evaluations are dealt with as a matter of priority.

D.1.8 All bulk finds are washed (where appropriate), marked, bagged and boxed by the processing team according to the guidelines set out in section 4 and 5 of the OA Finds Manual, First-aid for finds and the UKIC guidelines No.2. They must also take into account the requirements of the receiving museum. Primary data recording count and weight of fragments by material from each context is recorded on the site database.

D.1.9 Unstable and sensitive objects are recorded onto the database and then packaged and stored in controlled environments according to their individual requirements. The advice of a conservator will be sought for sensitive objects in need of urgent conservation. All metalwork will be x-rayed prior to assessment (and to meet the requirements of most receiving museums).

D.1.10 Finds recovered from the environmental sample processing will be incorporated into the main assemblage and added to the database.

D.1.11 On completion of the processing and data entry a finds file for each archaeological investigation will be produced, a summary of which is available for the project manager. The assemblage is allocated an OA number for storage purposes. Bulk finds are stored on a roller racking system, metals in a secure controlled storage and organic finds are refrigerated where possible.

D.1.12 The movement of finds in and out of the department storage areas is strictly monitored and recorded. Carbon copy transit forms exist to record this information. Finds will not be removed from storage without the prior knowledge of the Head of Finds.

D.1.13 Finds information summarised in the finds compendium is used to assess the finds requirements for the post excavation stages of the project. The Finds department holds a list of all specialists used by OA (see below) both internal and external.

D.1.14 On completion of the post excavation stage of the project the department prepares the finds assemblage for deposition with the receiving museum. Discussions will be held with the museum, the excavator and the head of finds to finalise any selection, retention or discard policy. Most museums issue strict guidelines for the preparation of archives for deposition with their individual labelling, packaging and recording requirements.

D.2 Relevant industry standards and guidelines

D.2.1 UKIC, 1983, Packaging and Storage of Freshly-Excavated Artefacts from Archaeological Sites. Conservation Guidelines No.2. Archaeology Section, United Kingdom Institute for Conservation.

D.2.2 UKIC, 1988, Excavated Artefacts and Conservation: UK sites Revised Edition. Conservation Guidelines No.1. Archaeology Section, United Kingdom Institute for Conservation.

D.2.3 Society of Museum Archaeologists, 1993, Selection, retention and dispersal of Archaeological Collections. Download available via http://www.socmusarch.org.uk/publica.htm)

D.2.4 Watkinson, D E & Neal, V, 1998, First Aid for Finds (3rd edition). RESCUE & UKIC

D.3 Relevant OA manual and other supporting documentation

D.3.1 Allen, L, and Cropper, C (internal publication only) Oxford Archaeology Finds Manual.

Appendix E. Burials

E.1 Summary of Standard methodology

E.1.1 Human remains will not be excavated without a relevant licence/faculty and, where applicable (for example, a post medieval cemetery), a risk assessment from the local environmental officer.

E.1.2 All human remains will be treated with due care and regard to the sensitivities involved, and will be screened from the public throughout the course of the works.

E.1.3 Excavation will be undertaken in accordance with IFA (Roberts and McKinley 1993) and English Heritage and The Church of England guidelines (Mays 2005). For crypts and post-medieval burials the recommendations set out by the IFA (Cox 2001) in Crypt Archaeology: an approach, are also relevant.

E.1.4 In accordance with recommendations set out in the English Heritage and Church of England (2005) document Guidance for best practice for treatment of human remains excavated from Christian burial grounds in England, skeletons will not be excavated beyond the limits of the trench, unless they are deemed osteologically or archaeologically important.

E.1.5 Where any soft tissue survives and/or materials (for example, inner coffins, mattresses and other paddings) soaked in body liquor, no excavation or handling of the remains will take place until an appropriate risk assessment has been undertaken. Relevant protocols (i.e. Cox 2001) for their excavation, recording and removal will be adhered to.

E.1.6 OA does not excavate or remove modern burials (post-1907) and does not remove or open sealed lead coffins. Appropriate PPE (e.g. chemical suit, latex gloves) will be worn by all staff when working with lead coffins.

E.1.7 Graves and their contents will be hand excavated in plan. Each component (for example, skeleton, grave cut, coffin (or remains of), grave fill) will be assigned a unique context number from a running sequence. A group number will also be assigned to all of these, and small finds numbers to features such as coffin nails, hobnails and other grave goods (as appropriate).

E.1.8 Soil samples will be taken during the excavation of inhumations, usually from the region of the skull, chest, right hand, left hand, abdomen and pelvis, right foot and left foot. Infants (circa. less than 5 years) will normally be recovered as bulk samples. Soil samples will also be taken from graves that appear to contain no human bone.

E.1.9 Burials (including the skeleton, cremation, coffin fittings, coffin, urn, grave goods / other) will be recorded by photographic and written record using specialised pro forma context sheets, although these records may only include schematic representations of the location and position of the skeletons, depending on the nature and circumstances of the burial.

E.1.10 Where necessary, hand drawn plans (usually at 1:10, sometimes 1:5) will be made, especially of contexts where required details cannot be adequately seen using digital rectified photography (for example, urned cremations; undisturbed hob nails).

E.1.11 Levels will be taken. For inhumations this will be on the skull, pelvis and feet as a minimum.

E.1.12 Human remains that are exhumed will be bagged and labelled according to skeletal region and carefully packed into suitable containers (for example, acid free cardboard boxes) and transported to a suitable storage location. Any associated coffins and coffin fittings will be contained with the human remains wherever possible.

E.1.13 Unurned cremations will not usually be half sectioned or excavated in spits, but recovered as a bulk sample.

E.1.14 Wherever possible, urned cremations will be carefully bandaged, recovered whole and will be excavated in spits in the laboratory, as per the recommendations of McKinley (2004).

E.1.15 Unless deemed osteologically or archaeologically important disarticuled bone / charnel will be collected and reserved for re-burial if immediate re-internment as close to its original position is not practicable. In some instances, a rapid scan of this material may be undertaken by a qualified osteologist, if deemed relevant.

E.1.16 If undisturbed, pyre sites will normally be excavated in quadrants, at the very least in 0.5 m blocks of 0.5 m spits.

E.1.17 Pyre debris dumps will be half sectioned or quadranted and will be subject to 100% sampling.

E.1.18 Wooden and lead coffins and any associated fittings, including fixing nails will be recorded on a pro forma coffin recording sheet. All surviving coffin fittings will be recorded by reference to Reeve and Adams (1993) and the unpublished master catalogue that is being compiled by OA. Where individual types cannot be paralleled, they will be drawn and/ or photographed and assigned a style number. Biographical details obtained from legible departum plate inscriptions will be recorded and further documentary research will be made.

E.1.19 Funerary structures, such as brick shaft graves and/or vaults will be hand-drawn at a scale of 1:10 or 1:20, as appropriate. Location, dimensions and method of construction will be noted, and the structure added to the overall trench plan.

E.1.20 Memorials, including headstones, revealed within the areas of development will be recorded irrespective of whether they are believed to be in situ.

E.1.21 Where required, memorials will be accorded an individual context number and will also be included as part of the grave group, if the association with a burial is clear.

E.1.22 Memorials will be recorded on pro-forma context sheets, based on and following the guidelines set out by Mytum (2002), and will include details of:

- Shape
- Dimensions
- Type of stone used
- Iconography (an illustration may best describe these features)
- Inscription (verbatum record of inscription; font of the lettering)
- Stylistic type

E.2 Relevant industry standards and guidelines

E.2.1 Cox, M, 2001 Crypt archaeology. An approach. IFA Paper No. 3

E.2.2 Mays, S, 2005 Guidance for Best Practice for Treatment of Human Remains Excavated from Christian Burial Grounds in England. Church or England and English Heritage.

E.2.3 McKinley, J, and Roberts, C, 1993 Excavation and post-excavation treatment of cremated and inhumed human remains, IFA Technical Paper No. 13

E.2.4 McKinley, J, 2004 Compiling a skeletal inventory: cremated human bone. In Brickley, M, and McKinley, J (eds) Guidelines to the Standards for Recording Human Remains, IFA Technical Paper No. 7. 9-13.

E.2.5 Mytum, H, 2000 Recording and Analysing Graveyards. CBA Handbook No. 15.

E.2.6 Reeve, J, and Adams, M, 1993 The Spitalfields Project. Volume I – The Archaeology Across the Styx. CBA Research Report No. 85

E.2.7 The Human Tissue Act 2004

E.3 Relevant OA manual and other supporting documentation

E.3.1 Loe, L, 2008 The Treatment of Human Remains in the Care of Oxford Archaeology. Oxford Archaeology internal policy document.

E.3.2 Excavating and recording human remains. Oxford Archaeology internal guidelines document.

Appendix F. Reporting

F.1 Summary of Standard methodology

F.1.1 For Watching Briefs and Evaluations, the style and format of the report will be determined by OA, but will include as a minimum the following:

- A location plan of trenches and/or other fieldwork in relation to the proposed development.
- Plans and sections of features located at an appropriate scale.
- A section drawing showing depth of deposits including present ground level with Ordnance Datum, vertical and horizontal scale.
- A summary statement of the results.
- A table summarising the features, classes and numbers of artefacts contained within, spot dating of significant finds and an interpretation.
- A reconsideration of the methodology used, and a confidence rating for the results.
- An interpretation of the archaeological findings both within the site and within their wider landscape/townscape setting.

F.1.2 For Excavations, a Post-Excavation Assessment and Project Design will generally be prepared, as prescribed by English Heritage Management of Research Projects in the Historic Environment (MoRPHE) 2006, Section 2.3. This will include a Project Description containing:

- A summary description and background of the project.

- A summary of the quantities and assessment of potential for analysis of the information recovered for each category of site, finds, dating and environmental data. Detailed assessment reports will be contained within appendices.
- An explicit statement of the scope of the project design and how the project relates to any other projects or work preceding, concurrent with or following on from it.
- A statement of the research aims of the fieldwork and an illustrated summary of results to date indicating to what extent the aims were fulfilled.
- A list of the project aims as revised in the light of the results of fieldwork and the current post-excavation assessment process.

F.1.3 A section on Resources and Programming will also be produced, containing:

- A list of the personnel involved indicating their qualifications for the tasks undertaken, along with an explanation of how the project team will communicate, both internally and externally.
- A list of the methods which will be used to achieve the revised research aims.
- A list of all the tasks involved in using the stated methods to achieve the aims and produce a report and research archive in the stated format, indicating the personnel and time in days involved in each task. Allowance should be made for general project-related tasks such as monitoring, management and project meetings, editorial and revision time.
- A cascade or Gantt chart indicating tasks in the sequence and relationships required to complete the project. Due allowance will be made for leave and public holidays. Time will also be allowed for the report to be read by a named academic referee as agreed with the County Archaeological Officer, and by the County Archaeological Officer.
- A report synopsis indicating publisher and report format, broken down into chapters, section headings and subheadings, with approximate word lengths and numbers and titles of illustrations per chapter. The structure of the report synopsis should explicitly reflect the research aims of the project.

F.1.4 The Project Design will be submitted to the County Archaeological Officer or equivalent for agreement.

F.1.5 Under certain circumstances (eg with very small mitigations), and as agreed with the County Archaeological Officer or equivalent, a formal Assessment and Project Design may not be required and either the project will continue straight to full analysis, or a simple Project Proposal (MoRPHE 2006 Section 2.1) will be produced prior to full analysis. This proposal may include:

- A summary of the background to the project
- Research aims and objectives
- Methods statement outlining how the aims and objectives will be achieved
- An outline of the stages, products and tasks
- Proposed project team
- Estimated overall timetable and budget if appropriate.

F.1.6 Once the post-excavation Project Design or Project Proposal has been accepted, the County Archaeological Officer or his appointed deputy will monitor the progress of the post-excavation project at agreed points. Any significant variation in the project design will be agreed with the County Archaeological Officer.

F.1.7 The results of the project will be published in an appropriate archaeological journal or monograph. The appropriate level of publication will be dependent on the significance of the fieldwork results and will be agreed with the County Archaeological Officer. An OASIS (Online Access to the Index of Archaeological Investigations) form will be completed for each project as per English Heritage guidelines.

F.2 Relevant industry standards and guidelines

F.2.1 Oxford Archaeology (OA) adheres to the national standards in post-excavation procedure as outlined in English Heritage's Management of Research Projects in the Historic Environment (MoRPHE; EH 2006). Furthermore, all post-excavation projects take into account the appropriate regional research frameworks as well as national research agendas such as the Framework for Historic Environment Activities & Programmes in English Heritage (SHAPE; EH 2008).

Appendix G. List of specialists regularly used by OA

G.1.1 Below are two tables, one containing 'in-house' OA specialists, and the other containing a list of specialists who are regularly used by OA.

Internal archaeological specialists used by OA

Specialist	Specialism	Qualifications
Lisa Brown	Early Prehistoric pottery	BA, PGDip, MLitt, MIfA
Paul Booth	Iron Age and Roman pottery	BA, FSA, MIfA
John Cotter	Medieval and Post Medieval pottery, Clay Pipe and CBM	BA (Hon.), MIfA
Cynthia Poole	CBM and Fired Clay	BA (Hon.), MSc
Edward Biddulph	Roman Pottery	BA (Hon.), MA, MIfA
Ian Scott	Metalwork and Glass	BA (Hon.)
Leigh Allen	Metalwork and worked bone	BA (Hon.), PGDip
Dr Ruth Shaffrey	Worked stone artefacts	BA, PhD
Julian Munby	Architectural Stone	BA, FSA
Dr Rebecca Nicholson	Fish and Bird Bone	BA (Hon.), MA, D.Phil, MIfA, FSA Scot
Elizabeth Huckerby	Pollen and waterlogged plant remains	BA, MSc, MIfA
Lena Strid	Animal bone	MA
Kath Hunter	Charred and waterlogged plant remains	Bsc, MIfA
Dr Denise Druce Pollen	Charred plant remains and charcoal	BA, PhD, MIfA
Liz Stafford	Geoarchaeology and land snails	BA, Msc
Nicola Scott	Archaeological archive deposition	BA
Mike Donnelly	Flint	BSc, MIfA

External archaeological specialists regularly used by OA

Specialist	Specialism	Qualifications
Lynne Keys	Slag	BA (Hon.)
Quita Mould	Leather	BA, MA
Penelope Walton Rogers, The Anglo Saxon Laboratory	Identification of Medieval Textiles	FSA, Dip.Acc
Dana Goodburn-Brown	Conservation	BSc (Hon.), BA, MSc
Steve Allen, York Archaeological Trust	Conservation	BA, MA, MAAIS
Dr Richard McPhail	Soils, especially Micromorphology	BA (Hon.), MSc, PhD
Dana Challinor	Charcoal	MA (Hon.), MSc
Dr Nigel Cameron	Diatoms	BSc, MSc, PhD
Dr David Smith	Insects	BA (Hon.), MA, PhD
Professor Adrian Parker	Phytoliths and pollen	BSc (Hons.), D.Phil
Dr David Starley	Slag	BSc, PhD
Wendy Carruthers	Charred and waterlogged plant remains	
Dr Sylvia Peglar	Pollen	PhD
Dr John Whittaker	Ostracods and Foraminifera	BA (Hons), PhD
Dr John Crowther	Soil Chemistry	MA, PhD
Dr Martin Bates	Geoarchaeology	BSc, PhD
Professor Mark Robinson	Insects, molluscs, waterlogged plant remains	MA, PhD
Dr Dan Miles	Dendrochronology	D.Phil, FSA
Dr Jean-luc Schwenninger	Optically Stimulated Luminescence Dating	PhD
Dr David Higgins	Clay Pipe	BA, PhD, MIfA
Dr Hugo Lamdin Wymark	Flint	BSc, PhD, FSA Scot, MIfA

Appendix H. Documentary Archiving

H.1 Standard methodology – summary

H.1.1 The documentary archive constitutes all the written, drawn, photographic and digital records relating to the set up, fieldwork and post-excavation phases of the project. This documentary archive, together with the artefactual and environmental ecofact archive

collectively forms the record of the site. The report is part of the documentary archive, and the archive must provide the evidence that supports the conclusions of the report, but the archive may also include data which exceeds the limitations of research parameters set down for the report and which could be of significant value to future researchers.

H.1.2 At the outset of the project OA Archive department will contact the relevant local receiving museum or archive repository to notify them of the imminent start of a new fieldwork project in their collecting area. Relevant local archiving guidelines will be observed and site codes, which integrate with the receiving repository, will be agreed for labelling of archives and finds.

H.1.3 During the course of the project the Archive department will assist the Project Manager in the management of the archive including the cataloguing and development technique suitable for photographic archive requirements.

H.1.4 The site archive will be security copied either by microfilming and the master sent to English Heritage as part of the National Archaeological Record or it will be digitally scanned and stored in a dedicated archive section of the OA computer network. A copy of the work as microfiche diazo or .pdf/a on disk will be sent to the receiving museums with the hard copy. This will act as a safeguard against the accidental loss and the long-term degeneration of paper records and photographs.

H.1.5 Born digital data where suitable will be printed to hard copy for the receiving museum but if the format is such that it needs maintaining in digital form a copy will be sent to the receiving museum by CD. Back-up copies will be stored on the OA digital network and or posted to the ADS in accordance with AAF & ADS guidelines. In most cases a digital copy of the report will be included in the OASIS project library hosted by ADS.

H.1.6 Prior to deposition the Archive department will contact the museum regarding the size and content of the archive and discuss any retention and dispersal policies which may be applicable in line with local and SMA Guidelines ' Selection, Retention & Dispersal of Archaeological Collections' 1993

H.1.7 The site archive will then be deposited with the relevant receiving museum or repository at the earliest opportunity unless further archaeological work on the site is expected. The documentary archive will include correspondence detailing landowner consent to deposit the artefacts and any copyright licences in accordance with the receiving museum guidelines.

H.1.8 Oxford Archaeology will retain full copyright of any commissioned reports, tender documents or other project documents, under the Copyright, Designs and Patents Act 1988 with all rights reserved; excepting that it will provide a licence to the client in all matters directly relating to the project as described in the Written Scheme of Investigation.

H.1.9 OA will advise the client of any such materials supplied in the course of projects which are not OA's copyright.

H.1.10 OA undertakes to respect all requirements for confidentiality about the client's proposals provided that these are clearly stated. It is expected that such conditions shall not unreasonably impede the satisfactory performance of the services required. OA further undertake to keep confidential any conclusions about the likely implications of such proposals for the historic environment. It is expected that clients respect OA's general ethical obligations not to suppress significant archaeological data for an unreasonable period.

H.2 Relevant industry standards and guidelines

H.2.1 At the end of the project the site archive will be ordered, catalogued, labelled and conserved and stored according to the following national guidelines:

H.2.2 The 2007 AAF guide Archaeological Archives A Guide to best practice in creation, compilation, transfer and curation. Brown D.

H.2.3 The IFA Standard & Guidance for the creation, compilation, transfer and deposition of archaeological archives

H.2.4 The UKIC's Guidelines for the preparation of excavation archives for long-term storage

H.2.5 The MGC's Standards in the museum care of archaeological collections

H.2.6 Local museum guidelines such as Museum of London Guidelines: (http://www.museumoflondonarchaeology.org.uk/English/ArchiveResearch/DeposResource) will be adopted where appropriate to the archive collecting area.

H.2.7 The site archive will be prepared to at least the minimum acceptable standard defined in Management of Archaeological Projects 2, English Heritage 1991.

H.3 Relevant OA manual and other supporting documentation

H.3.1 The OA Archives Policy.

Appendix I. Health and Safety

I.1 Summary of Standard Methodology

I.1.1 All work will be undertaken in accordance with the OA Health and Safety Policy (Revision 13, August 2009), the OA Site Safety Procedures Manual, a site-specific Risk Assessment and, if required, Safety Plan or Method Statement. Copies of the site-specific documents will be submitted to the client or their representative for approvals prior to mobilisation, and all relevant H and S documentation will be available on site at all times. The Health and Safety documentation will be read in conjunction with the project WSI.

I.1.2 Where a site is covered by the The Construction (Design and Management) Regulations (2007), all work will be carried out in accordance with the Principal Contractor's Construction Phase Plan.

I.1.3 All work will be carried out according to the requirements of all relevant legislation and guidance, including, but not exclusively.

- The Health and Safety at Work Act (1974),
- Management of Health and Safety at Work Regulations (1999),
- Manual Handling Operations Regulations 1992 (as amended in 2002),
- The Construction (Design and Management) Regulations (2007), and
- The Reporting of Injuries, Diseases and Dangerous Occurrences Regulations (1995).

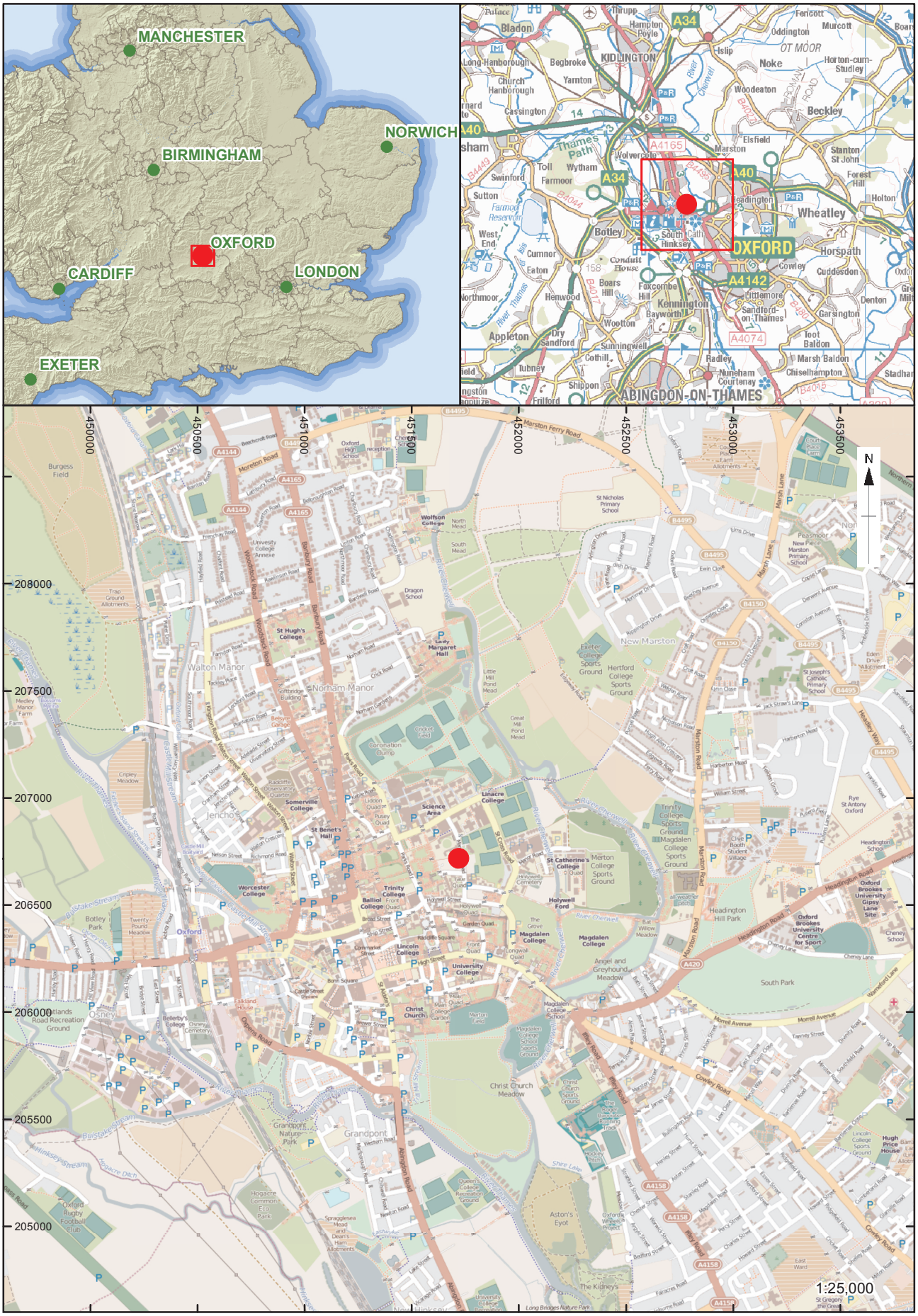
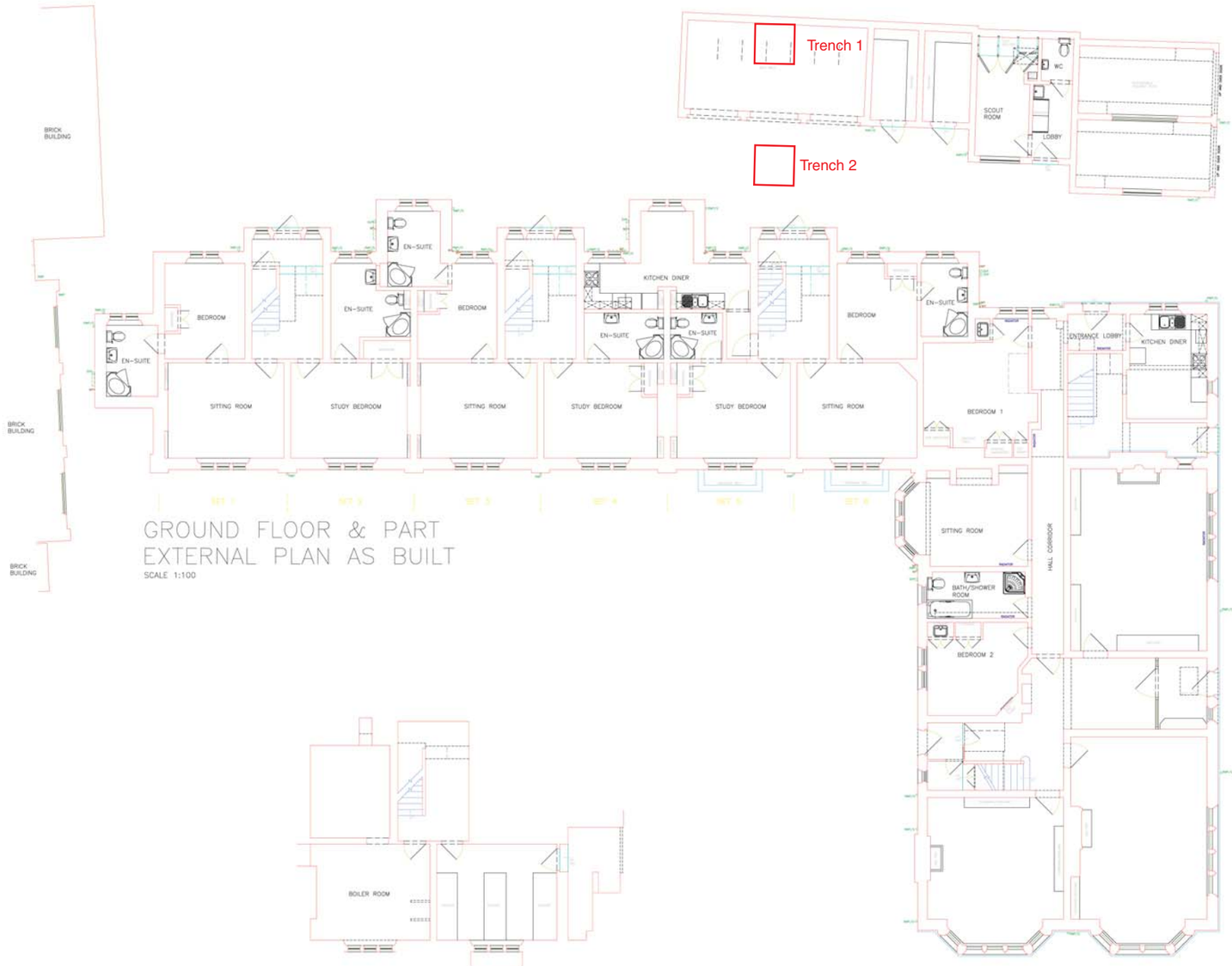


Figure 1: Site location



GROUND FLOOR & PART EXTERNAL PLAN AS BUILT
SCALE 1:100

BASEMENT FLOOR PLAN AS BUILT
SCALE 1:100

0 10 m
1:200

NOTES
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B	11-04-2007	AS BUILT ISSUE
C	JUNE 2006	CONSTRUCTION ISSUE
T	27-01-2006	MINOR REVISIONS AND TENDER ISSUE
P2	17-01-2006	REVISION TO DOORS IN BASEMENT TO REFLECT ADVICE FROM SPK CONSULTING; MINOR CHANGES TO KITCHEN DINERS; DOOR NUMBERS MADE CLEARER & WINDOW NUMBERS ADDED
P1	29-11-2005	MINOR REVISION TO DOOR OPENING B03

NEW COLLEGE, OXFORD

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GROUND FLOOR AND PART EXTERNAL PLAN AS BUILT + BASEMENT FLOOR PLAN AS BUILT

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Figure 2: Proposed Trench location

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