

ORDSALL HALL REFURBISHMENT, SALFORD

Greater
Manchester



Archaeological Watching Brief and Excavation Report



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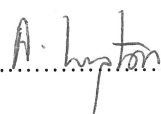
National Grid Reference: SJ 815 972

Prepared by: Chris Wild
Position: Project Officer
Date: March 2012

Checked by: Alison PLummer
Position: Senior Project Manager
Date: March 2012

Signed.....

Approved by: Alan Lupton
Position: Operations Manager
Date: March 21012

Signed.....

Oxford Archaeology North

Mill 3, Moor Lane Mills
Moor Lane
Lancaster
LA1 1GF
t: (0044) 01524 541000
f: (0044) 01524 848606

© Oxford Archaeology Ltd (2012)

Janus House
Osney Mead
Oxford
OX2 0EA
t: (0044) 01865 263800
f: (0044) 01865 793496

w: www.oxfordarch.co.uk
e: info@oxfordarch.co.uk

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SUMMARY

Oxford Archaeology North (OA North) was commissioned by Urban Vision on behalf of Salford City Council to undertake a programme of archaeological works at Ordsall Hall, Salford (NGR SJ 815 972). The works were programmed to take place during a major refurbishment project part funded by the Heritage Lottery Fund, intended to both conserve the building, and maximise its use by the local community. The building work element of the project began in May 2009 and the Hall was re-opened to the public in the spring of 2011.

Ordsall Hall is a Grade 1 Listed Building (949-1/4/94), being located on the edge of a deprived housing estate, and close to an area of proposed regeneration. It is an outstanding survival of a late medieval/post-medieval moated hall, with a long history of use and adaptation. Its fabric, both timber-framed and brick construction, records changes and alterations over a period of five hundred years, particularly in the late fourteenth, sixteenth, seventeenth and nineteenth centuries, and with complex interactions between these. It has been a social history museum since 1972 (Salford Museum Service).

Norman Redhead, the Greater Manchester County Archaeologist, issued a brief for a programme of archaeological work to be undertaken during the refurbishment. This comprised three main elements, the first of which was a programme of targeted watching briefs to be undertaken both, internally, within the structure of the Hall and, externally, during landscaping works for the Herb Garden and Formal Garden. Secondly, a detailed description of the timber elements of the roof was required, along with a measured survey through one of the seventeenth century trusses in the west wing. The final element was an excavation of the kitchen well and within the Great Hall, following the lifting of the floor. Unfortunately, due to health and safety constraints, OA North were unable to excavate the well, and this element of the brief was reduced to a watching brief.

Ordsall Hall currently comprises an extensively modified and extended medieval moated manor house. The oldest part of the current building includes the room known as the Star Chamber and has been dated to between c 1363 and 1383. This represents a portion of the earlier east wing, which was the lord's private apartments, known as a solar. The earliest known description of the hall is from 1380 and mentioned five chambers, a kitchen and a chapel. Associated with the hall were a demesne farm yard, two stables, three granges, two cow houses, a garner or granary, a dovecote, an orchard and a windmill. The current Great Hall was built in c 1513 and the west wing was built in 1639. The east wing was also extended during the seventeenth century.

A kitchen area appears to have been added to the east wing during the eighteenth century and by 1812 the east wing had been demolished completely, forming the basis of the current L-shaped plan. A brick-built servants' wing was constructed at the south-eastern corner of the hall in the late nineteenth-century. In 1959 the hall was purchased by Salford Corporation and opened in 1972 as a period house and social history museum.

The watching brief undertaken within the Hall served to enhance current understanding of the construction techniques utilised throughout the Hall, and also to

record a number of significant developments, such as changes to both internal and external access arrangements.

The opportunity to investigate the roof provided evidence for an earlier phase to the west wing (pre-dating the seventeenth-century construction), as well as allowing a full phasing of the various elements of the roof to be undertaken.

The excavation within the Great Hall confirmed the presence of an early sixteenth-century hearth. It also allowed for an insight into the natural ground conditions prior to the construction of the Hall.

Within the Proposed Formal Garden, only a few structural remains were identified, quite a number of which would appear to be of late-nineteenth century date, and thus almost certainly pertaining to St Cyprian's church, which was constructed on the site of the east wing in the 1890s. The walls, drains and pits revealed to the west of the hall, within the Proposed Herb Garden, clearly demonstrate widespread, multi-phase activity within this part of the site, and four broad phases were identified, including a nineteenth century extension to the kitchen.

The watching brief, roof survey and excavation have enhanced the understanding of the development and phasing of the Hall. In addition, attempts at interpretation have served to highlight the need for a more thorough investigation of the archaeological archive from previous phases of work.

ACKNOWLEDGEMENTS

Oxford Archaeology North would like to thank Urban Vision for commissioning the project, and for their assistance throughout the duration of the watching brief, and Marcus Walker and the staff of Lambert Walker for their assistance on site during the fieldwork. Thanks are also due to Norman Redhead, County Archaeologist for Greater Manchester, for his advice and support throughout the fieldwork.

APR Services Ltd was commissioned to produce a laser scan image of the roof. Sean McPhilips and Karl Taylor carried out the watching brief, and Jon Onraet assisted during the excavation in the Great Hall. Chris Wild undertook the study of the roof timbers, and Nick Johnson managed the fieldwork.

Sean McPhilips assessed the finds. Mark Tidmarsh compiled the illustrations, and Alison Plummer, Alastair Vannan and Chris Wild contributed to the report. Alison Plummer edited the report.

1. INTRODUCTION

1.1 CIRCUMSTANCES OF PROJECT

- 1.1.1 Ordsall Hall, a Grade 1 Listed Building (949-1/4/94), is an outstanding survival of a late medieval/early post-medieval building, with a long history of use and adaptation. Its fabric records changes and alterations over a period of five hundred years (from the fourteenth century), with complex interactions between these. It has been a social history museum since 1972 (Salford Museum Service).
- 1.1.2 In 2009 Salford City Council commissioned a major programme of refurbishment of the Hall, setting themselves the challenge of balancing the conservation of the Hall, whilst maximising its use by the local community. The archaeological works, as specified by Norman Redhead, the County Archaeologist for Greater Manchester, was just one small element of the overall project. The refurbishment was successfully completed in 2011, and the Hall re-opened to the public.
- 1.1.3 In summary, the brief (*Appendix 1*) specified, firstly, a targeted programme of watching brief both within the Hall itself, and also during the landscaping of the Proposed Formal and Herb Gardens. Secondly, the brief required a descriptive record of the roof, and a measured survey through a selected truss in the west wing. Finally, two excavations were recommended; one within the kitchen well, and the other beneath the floor of the Great Hall. Due to health and safety concerns the excavation of the well was reduced to a watching brief.

1.2 LOCATION, TOPOGRAPHY AND GEOLOGY

- 1.2.1 Ordsall Hall lies within the city of Salford (SJ 815 972) to the north-west of the transition between the Manchester Ship Canal and the River Irwell at approximately 23 AOD. The grounds associated with the Hall have been reduced to a rectangular area of grassland defined by Taylorson Street, Warburton Street, Guy Fawkes Street, and Ordsall Lane, and the surrounding area comprises residential, retail, industrial, and business development interspersed with green parks. The moat that formerly enclosed the hall is no longer visible as an earthwork.
- 1.2.2 Ordsall Hall now lies within the eastern part of Salford, which falls within the Manchester conurbation (Countryside Commission 1998, 125). The hall occupies a shallow shelf on the northern edge of the Irwell flood plain and occupies recent alluvium, comprised of clay, sand and silt (BGS 2011), which would have formed a fertile base for arable or pastoral farming (UMAU 2005). The local bedrock comprises undifferentiated triassic sandstone and conglomerate (BGS 2011).

2. METHODOLOGY

2.1 PROJECT BRIEF

2.1.1 The project brief *Archaeological Works at Ordsall Hall, Salford*, was issued by the Greater Manchester County Archaeologist (*Appendix 1*). The brief outlined three aspects of work and these are presented below. It was adhered to in full with the exception of the excavation of the well (*Section 2.4.2, below*), which was reduced to a watching brief due to health and safety constraints.

2.2 WATCHING BRIEF

2.2.1 ***Interior of the Hall:*** eleven areas within the Hall were highlighted in the brief (*Appendix 1*) as being of specific archaeological interest, and therefore to be targeted by the watching brief. The areas are as follows (numbers in bold relate to architects plans: Figs 3, 4 and 5):

- **G3** Star Chamber - repairs to the ceiling;
- **G4** Great Hall - the exposure of the spere post base, and any lifting of existing floor;
- **G4** Great Hall - a new door in the south facade near spere truss base where earlier wall foundation may be seen;
- **G10** Kitchen - excavate ramp beside inglenook fireplace and new access;
- **G11A** West Wing Hallway - insert new lift base and new toilet works, and new access into **G13** (Stair Tower);
- **G13** Stair Tower - this will become a stair tower and will be stripped out providing an opportunity to understand the porch structure;
- **G10** Kitchen, **G11B** The Radclyffe Room, and **G12** Gardener's Office are to be stripped back to bare wall;
- **F5** The Frederic Shields Gallery - the floor to be replaced, need to check for early joists;
- **F7** The Egerton Gallery - removal of wall by chimney-breast and stripping out of later fireplace by the lift shaft;
- **F3A** Great Chamber - floor to be strengthened and all floorboards will be replaced;
- **F1** East Wing Landing - intervention work for new staircase and reduction of floor level by 100mm.

- 2.2.2 **Watching Brief during landscaping of the Hall Grounds:** this was maintained during groundworks within the Proposed Herb Garden (to the west of the hall) and the Formal Garden, located to the north of the hall. The depth of soil removal varied between 0.3m to 1.3m. A number of areas within the proposed landscaping proved to be heavily disturbed by services.
- 2.2.3 A full written and photographic archive was compiled for each of the areas subject to the watching brief. Plans were produced as appropriate, and tied into the site plan.
- 2.2.4 All features of archaeological interest were investigated and recorded. All spoil was scanned for artefacts. Recording comprised a full description and preliminary classification of the deposits and materials revealed on OA North *pro-forma* sheets. The external areas of the watching brief were located using a GPS, which is accurate to +/- 0.25m. Hand-drawn plans were produced showing the contents of the trenches and the results of the excavation, with representative sections being drawn at a scale of 1:10 or 1:20 as appropriate. An indexed photographic record, using monochrome and digital formats, was maintained.
- 2.2.5 **Finds procedures:** all finds recovered during the external watching brief were lifted, cleaned, bagged and boxed in accordance with the United Kingdom Institute for Conservation (UKIC) *First Aid for Finds* (1998). Recovery and sampling programmes were in accordance with best practice (current IFA guidelines) and subject to expert advice.

2.3 THE ROOF STRUCTURE AND ROOF SPACE (S4 TO S9)

- 2.3.1 Access was provided to the third floor roof structure (known as the Roof Space), which has excellent seventeenth century timber-framing not previously surveyed. A measured survey was compiled for the most northerly roof truss in Room S9. The section extended down through the building to room G11 on the ground floor.
- 2.3.2 The roof across the entire hall was exposed in re-laying slates. This provided a unique opportunity to photograph, describe and phase the roof structure. In addition to the photographic record, the decision was taken in consultation with the client and County Archaeologist to record the roof using laser scanning techniques. A digital copy of the results was supplied to both the client and County Archaeologist and a brief assessment of the results is presented within this report.

2.4 EXCAVATION IN THE GREAT HALL (G4)

- 2.4.1 **G4 Great Hall:** the original floor surface of the hall was subject to an excavation following removal of the floor boards above. This comprised the manual cleaning of the original surfaces, and the planning and descriptive recording of all features present. A full photographic archive was maintained.

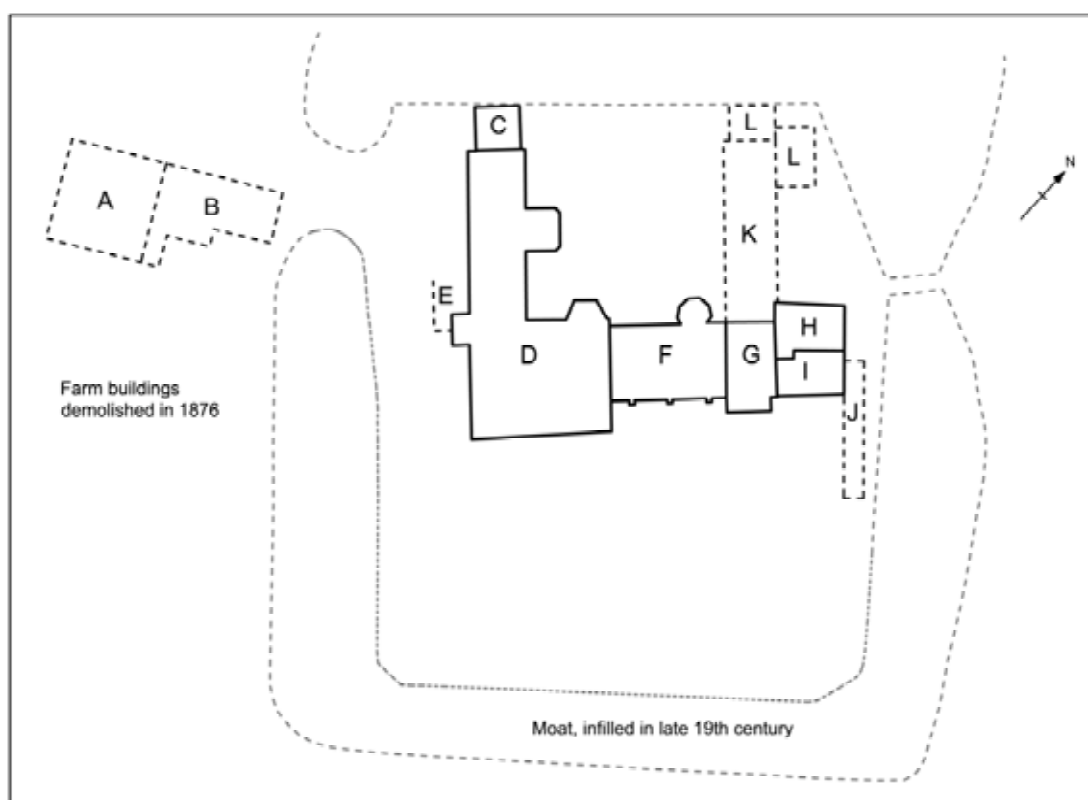
The floor joists remained *in-situ*, and any recording and investigation was undertaken between the joists.

- 2.4.2 **G10 Kitchen Well:** whilst it was originally envisaged that the well would be excavated to a specified depth, following discussions with the County Archaeologist and the OA South Safety Officer this element was reduced to a watching brief.

3. HISTORICAL AND ARCHAEOLOGICAL BACKGROUND

3.1 INTRODUCTION

3.1.1 Detailed documentary research relating to the general history of Ordsall Hall is beyond the remit of this project, however the provision of a summary of the historical development of the hall will provide a context within which to understand the results of the current archaeological work. Therefore, the following section represents a summary of the detailed overview of historical and archaeological evidence for the development of the hall presented in 2005 by P Arrowsmith in *Ordsall Hall, Salford, an archaeological desk-based survey*.



- A = Aisled Barn 1646
- B = Cottage, seventeenth century with later modifications
- C = Annexe, c late seventeenth century - early eighteenth century
- D = West Wing, c 1639, on site of earlier wing
- E = Kitchen, possibly destroyed by fire in nineteenth century
- F = Great Hall, c 1513
- G = East Wing, c 1361
- H = Infill Block, c 1790
- I = Annexe, c 1630
- J = Servants' Wing, nineteenth century
- K = East Wing, c 1361, demolished between 1750 and 1812
- L = Annexe/Kitchen, c late-seventeenth to early-eighteenth centuries

Plate 1: A broad chronology of the development of key elements of Ordsall Hall (taken from Arrowsmith, 2005)

3.2 HISTORICAL AND ARCHAEOLOGICAL BACKGROUND

- 3.2.1 **Owners and Occupants:** Ordsall Manor was first documented in 1177 but its status prior to the mid-thirteenth century is unclear. In 1251 it was granted by William Ferrers, earl of Derby, to the Hulton family, who for nearly a century held it as part of a group of local manors. By the 1340s, Ordsall, along with other parts of the Hulton's estates, had passed to a branch of the Radcliffe family, originally of Radcliffe near Bury.
- 3.2.2 In 1662 financial difficulties resulted in the sale of the hall to John Birch of Ardwick, and by 1704 the building was divided into two separate tenancies. In 1758 ownership passed to the Egertons of Tatton (Farrer & Brownbill 1911, 213; Vigeon 1975, 12; Higham 1980, 8). In the late 1890s Earl Egerton of Tatton had the building restored as a clergy training school and rectory for the Church of St Cyprian which was built at this time on the site of the hall's former east wing (Farrer & Brownbill 1911, 213; Vigeon 1975, 12). In 1959 the hall was purchased by Salford Corporation and opened in 1972 as a period house and social history museum (Vigeon 1975, 12). St Cyprian's church closed in 1963 and was subsequently demolished (Bullock 1996, 57).
- 3.2.3 **The East Wing:** the oldest part of the current building is the two-storey build immediately to the east of the Great Hall (**G10**). This would have been the south end of the east wing, prior to its demolition. It contains a single heated room on each floor, of which the ground-floor room is traditionally known as the Star Chamber (G on Plate 1). Tree-ring dating evidence suggests a felling date for the timbers of the build between 1348 and 1383, and perhaps towards the upper end of this range, *ie* between 1363 and 1383 (Smith 1995, 6). Its location, at the upper end of the Great Hall (**G4**), allows it to be identified as the lord's private apartments or solar.
- 3.2.4 The dating evidence suggests that the Radcliffes built the east wing, and it formed part of the hall as described in 1380. This is the earliest known description of the hall, and was provided by the inquisition following the death of Richard Radcliffe. The hall was described as comprising five chambers, a kitchen and a chapel, which was licensed in 1361. Associated with the hall, were a demesne farmyard, two stables, three granges, two cow houses, a garner or granary, a dovecote, an orchard and a windmill (Higham 1980, 7-8).
- 3.2.5 The solar was extended to the east by the addition of an annexe in the early-seventeenth century (I on Plate 1), and of an infill block in *c* 1790 (H on plate 1), but the earlier eastern wall of the solar formerly marked the end of the building at this side. The fourteenth-century solar formerly continued to the north to form a substantial east wing, measuring approximately 6m wide and 29m long. Remains of this were discovered during the construction of St Cyprian's church in the 1890s (Farrer & Brownbill 1911, 213), although the main evidence consists of stone footings discovered during archaeological excavations carried out in 1990-1 and 1994. This wing has been suggested to have equated with the five chambers and a chapel documented in 1380 and to have been constructed contemporaneously with the provision of the chapel licence in 1361 (Smith 1995, 5; Plate 1).

- 3.2.6 The stone footings of a smaller structure measuring approximately 5m square were revealed adjacent to the northern end of the east wing and the footings of a substantial chimney-stack butted against the northern end of the east wall of the wing (L on Plate 1). A curving line of stonework immediately to the north-east of the chimney was suggestive of a bread oven, and these features suggest that the northern end of the wing was used as a kitchen. A possible stone-lined well was discovered within the structure to the north of the wing, supporting the theory that the building was an annex to the kitchen. Two small features believed to be hearths were also discovered within the east wing. The hall was divided into two separate tenancies by 1704. While no direct dating evidence was found relating to the construction of the east wing and the associated structural features, adjacent deposits produced pottery consistently dating to the late-seventeenth or early-eighteenth century.
- 3.2.7 The Victoria County History dates the demolition of the east wing to 1639, suggesting that its removal was contemporary with the building of the west wing (Farrer & Brownbill 1911, 213). However, the east wing was clearly shown on a map of 1740. In addition, a document entitled 'A State of the Manor of Ordsall, 1750' described the hall as 'the mansion house or hall of Ordsall...consisting of a large Hall, Long Dining Room, a Chapel, six rooms on a floor with brew house, large court, stable and other conveniences' (Smith 1995). Smith concluded that the east wing was still standing at that date, but that the hall was divided with the Great Hall and east wing forming one occupancy, and the western side of the hall, comprising the service wing and west wing. The earliest estate plan, of 1812 did not depict the east wing (Smith 1995, 6). After the demolition of the east wing, a thick layer of fine brown loam was deposited over the site and this area was utilised as a garden until the construction of St Cyprian's church in the 1890s.
- 3.2.8 ***The Great Hall G4:*** the current Great Hall was built in c 1513 by Sir Alexander Radcliffe (Plate 1). It must have replaced an earlier hall, vestiges of which may be preserved in the current dais wall, which was originally built as the west wall of the fourteenth-century solar (Smith 1995, 9). A slight lens of burning was revealed approximately 250mm from ground level below the louvre in the Great Hall, during excavations seeking to locate remains of a central hearth. This offered firm evidence for the position of the hearth.
- 3.2.9 ***The North Side of the Courtyard:*** the building appended to the northern end of the east wing echoed the northern bay of the west wing. The Victoria County History, referring to the west wing, notes that 'Near the north end of the wing the east wall sets back on a line so nearly coinciding with that of a foundation discovered in 1896 running westward from the old east wing, that it may be taken as marking the width of an original north wing' (Farrer & Brownbill 1911, 215). More recent archaeological investigations have not located this east-west wall and its function is uncertain. The 1740 map showed the north side of the courtyard enclosed not by a wing but by a perimeter wall with a central arched entrance. This wall was shown in early-nineteenth-century depictions of the hall (Plates 2 and 3), and the arched entrance and the western side of the perimeter wall were still shown on a photograph of 1875. A section of the base of the perimeter wall, measuring approximately 0.55m thick and constructed of handmade brick, has been uncovered during

excavations. It was abutted at a right angle by a slighter brick wall measuring at least 5m long that projected over the line of the moat and presumably post-dates the infilling of the moat in the later nineteenth century.



Plate 2: Oil painting by John Ralston c 1830 from an aspect looking north-east with the northern end of the western wing in the foreground

- 3.2.10 **The West Wing:** the current archaeological evidence for an earlier west wing relates to several features which adjoined the western side of the wing but have since been demolished. This includes a surface of handmade brick that partially corresponds with a north-westerly projection of the west wing shown on the Victoria County History's plan of the hall, and was described as being largely 'modern'. It was also shown incorporating a seventeenth-century wall, which continued the line of the perimeter wall to the east.
- 3.2.11 Approximately opposite the centre of the west wing, brick foundations were discovered, which were cut by the causeway leading from Rixton Street to the hall (shown as E on Plate 10). The discovery of kitchen artefacts and considerable evidence of burning suggests that this could have been a kitchen destroyed by fire in the nineteenth century. This building was not shown on the OS map of 1849.
- 3.2.12 A southern extension of the current bay, now demolished, was shown on the 1849 OS map and on the Victoria County History plan, which described this extension as modern. A wall footing of sandstone blocks, associated with surfaces and a construction trench, was discovered projecting from the west wall.
- 3.2.13 **Servants' Wing:** at the south-east corner of the hall, excavations uncovered the foundations of a late nineteenth-century brick-built servants' wing, as depicted on the Victoria County History plan of the hall (shown as J on Plate

1). Sections of the boundary wall that continued the line of this wing to the north and south were also found.



Plate 3: Early-nineteenth century topographic drawing, possibly dating to the 1820s photographed from a picture on display at Ordsall Hall museum by UMAU (2009)

3.2.14 **The Moat:** the moat at Ordsall Hall was depicted on the OS mapping of 1849 defining a rectangular platform that measured 65m long and 60m wide. The moat was 7m wide to the south and 12-16m wide to the north, and in 1849 was crossed by a central bridge or causeway to the north (*see* Plate 3) and a footbridge to the east. A gap at the western side of the moat measured 9-12m wide, although the moat originally formed a continuous barrier around the hall, and an earlier footbridge, which pre-dated the early-seventeenth century and mirrored the bridge to the east, occupied part of this area. Parts of the moat featured stone retaining walls. The moat was up to 2m deep and was infilled during the later nineteenth century, when a 2.5m thick deposit of levelling material was laid in association with the construction of a corporation depot. Excavations have revealed large quantities of seventeenth-century pottery. The moat was originally cut to a depth of 1.5m below ground level and a probable associated bank was overlain by a metallised surface. No dating material has been found for the earliest phase of the moat, although moats in Greater Manchester generally date between the late-thirteenth to late-fourteenth century (Tindall 1985, 69-70), and it is possible that the moat was established by the Radcliffes.

3.2.15 It is evident that by the seventeenth century the moat had entered a period of decline, and the partial infilling of the western arm of the moat allowed a direct link between the moat platform and new farm buildings, which were built on its western bank. The silting moat was used as a dumping area in the

seventeenth century, and was recut in the eighteenth century, at which time it was perhaps intended merely as a decorative feature.

3.2.16 ***Demesne Farm Buildings:*** farm buildings associated with the running of the estate were listed in 1380, and on the OS map of 1849 three groups of farm buildings were depicted. The largest of these comprised the main Home Farm that lay to the north-west of the moated site. The Great Barn was built in 1646 and lay close to the north-eastern corner of the moat, and the third group of buildings was located just to the west of the moated site.

3.3 PREVIOUS ARCHAEOLOGICAL WORK

3.3.1 ***1961-66:*** these were earliest excavations at Ordsall Hall and were undertaken under the direction of Anstice Parke, who was then custodian of the building. Most of this work concentrated upon the area immediately to the south of the hall and located the moat at several points. Trial trenching also found traces of the former east wing and other features around the house.

3.3.2 ***1978-79:*** The Greater Manchester Archaeological Group (GMAU), under the direction of Dr Nick Higham, undertook an excavation on the site of part of the demesne farm to the west of the hall, outside the line of the moat in response to a proposed redevelopment of the site.

3.3.3 ***1990-94:*** in 1988 the Greater Manchester Archaeological Unit proposed a scheme at Ordsall Hall to reinstate the moat and grounds around the building, with a view to recreate the past environment of the house and to encourage more visitors. With this end in mind, Salford City Council Technical Services Department formulated an initial landscaping project to reduce the ground levels around the hall in order to expose the original garden levels. This scheme resulted in several stages of archaeological work, as outlined below.

- 1990-91: prior to the reduction in ground levels, GMAU was contracted to undertake archaeological excavation works that included trial trenches in the vicinity of the moat and a large trench in the north courtyard to investigate the footings of the demolished east wing.
- 1991: this work attempted to identify and examine in some detail the moat and bridge to the east of the hall, in order to provide Salford City Council with information which might assist them with their planned reconstruction and landscaping project at the site. Since the presence of GMAU coincided with the stripping of overburden by council contractors, additional areas to the south and west of the hall were also examined.
- 1993: a building survey of the two standing bays of the east wing was undertaken by GMAU and W John Smith (Smith 1995)
- 1994: an open area excavation was undertaken in the area of the demolished east wing by GMAU.

- 1994: UMAU undertook an evaluation to locate the seventeenth-century aisled barn discovered by Nick Higham in 1978-79.
- 3.3.4 **2006:** a programme of archaeological evaluation was undertaken by UMAU to the east of the hall. This was followed by an open area community excavation to the east of the hall (UMAU 2007a).
- 3.3.5 **2007:** a programme of archaeological evaluation was undertaken by UMAU in the area immediately to the north of the hall (UMAU 2007b).
- 3.3.6 **2009:** an archaeological building survey was undertaken by UMAU (2009) of the standing building complex.

4. WATCHING BRIEF RESULTS

4.1 INTRODUCTION

4.1.1 The watching brief was maintained during works in the specific areas of interest as outlined in the brief issued by GMAU (*Section 2.2; Appendix 1*). The results are presented below in the order provided in the project brief. All dimensions are given in imperial with the corresponding metric equivalent. Figures 3, 4 and 5 illustrate the locations of the various elements of the watching brief within the hall.

4.2 INTERIOR OF THE HALL

4.2.1 *The Star Chamber Ceiling Room (G3)*: during the course of the refurbishment works, the scheduled changes to the Star Chamber ceiling were re-designed in order to avoid potential damage to the fabric. The strengthening works were undertaken from above, below the floor of the Great Chamber (F3) and, concurrently, with the specified floorboard replacement within this room (*Section 4.2.35* below).

4.2.2 *The Spere Post Base (G4)*: the base of the northern spere post was revealed during the excavation of the floor in the Great Hall (*Section 5.2.4* below). Removal of the floor revealed close-framed floor joists with trimmers and braces (Plate 4). These were all jointed simply with nails, and appeared to be of softwood.

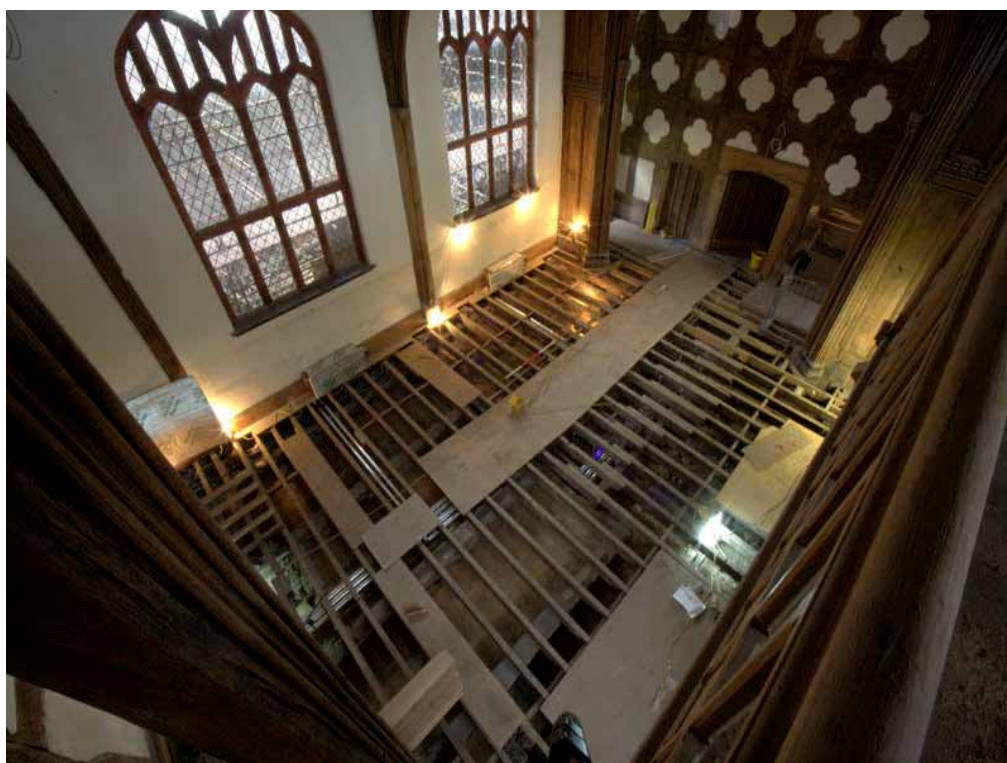


Plate 4: General view of the Great Hall (G4), showing floor construction

- 4.2.3 The decorated base of the spere post was diamond-shaped in section, although with a flattened southern side at the point where the wall-frame was joined to the post (Fig 9). The post was supported on a 6” (0.15m) deep, pale-coloured padstone. This was 3’(0.91m) square in plan (Plate 5), and comprised two approximately equally-sized sandstone blocks. This padstone was set on compacted orangey-brown natural sand (**I00**). A single-skin brick wall (**I03**) underlying the western side of the padstone, formed part of an undercut and later feature (see *Section 5*, below).



Plate 5: Detail of the Spere Post, with sandstone pad below

- 4.2.4 **New Door in the South Façade (G4)**: refurbishment works within the Great Hall included the insertion of a new doorway, at the western end of the south elevation, located to the west of the spere post (Fig 7; Plate 6). This allowed examination of the construction detail of the nineteenth century wall fabric.
- 4.2.5 The south wall of the hall comprised brick cavity construction, the cavity being 2” (50mm) wide, and through which passed Y-shaped wrought-iron ties, at approximately every four or five courses (Plate 7). The external face was constructed using machine-made red brick, laid in header bond, and using a black sooty mortar, typical of the late-nineteenth and early-twentieth centuries (Plate 7). It was of full brick thickness – 9” deep (229mm). The inner wall was of a similar brick, but here the stretcher bond, typical of early cavity wall construction, restricted the width to 4” (108mm).



Plate 6: South external wall of the Great Hall (G4), showing the position of the new doorway



Plate 7: Detail of cavity wall construction

- 4.2.6 A terracotta string-course was incorporated into the external face of the wall. It was of *ogee cyma recta* style, being positioned at mid-floor level, and matching a similar string-course positioned between the ground and first floors. The individual sections of the string-course were jointed together with timber dowels and liberally bonded with a black sooty mortar (Plate 8). Each section was stamped on the reverse face with the makers mark “JABEZ THOMPSON TERRACOTTA WORKS MANCHESTER”, accompanied by the letters “OH”, suggesting that the mould was specifically made for Ordsall Hall (Plate 9).



Plate 8: Detail of the Great Hall (G4) string-course

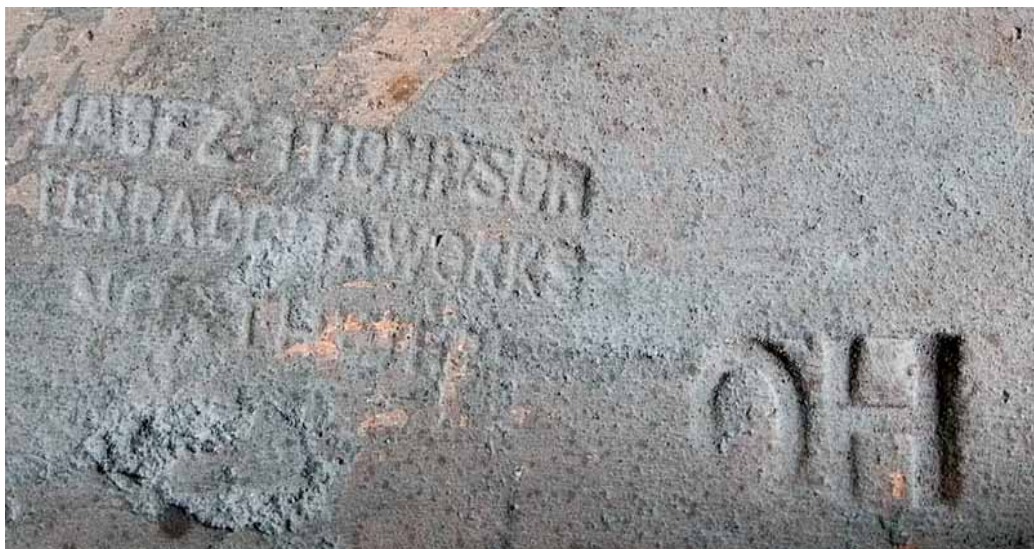


Plate 9: Manufacturer's and batch stamps on string-course moulding

- 4.2.7 A red sandstone plinth projected slightly from the base of the external face of the wall. It comprised large sandstone blocks 3' x 2' x 9" (910 x 610 x 229mm), narrowing to a chamfer of half that thickness at the top (Plate 10). Removal of a section of the plinth exposed a timber rail, the purpose of which was unclear, although it appeared to be aligned with two rectangular-shaped apertures in the back of the plinth (Plate 10).



Plate 10: Removed section of Plinth, external south wall of Great Hall (G4)

- 4.2.8 No evidence for earlier fabric was observed following the removal of the plinth. However, just visible within the wall cavity, and to the east of the new opening, a pier was seen to be located adjacent to the south side of the spere post, presumably intended to support the post.
- 4.2.9 **Kitchen (G10):** this kitchen is located at the southern end of the west wing. The refurbishment proposed the provision of a new access arrangements and modifications adjacent to the inglenook fireplace. Furthermore, removal of the wall finishes afforded the opportunity for a more detailed examination of the fabric than had previously been possible (Plate 11), allowing enhancement of the building survey undertaken in 2008 (UMAU 2009), extracts from which are incorporated into the following sections.
- 4.2.10 All of the walls are of brick construction, and extensive patching and repairs were visible, most of which appears to have been carried out relatively recently using cement-based mortar and a variety of brick types. The earliest fabric was constructed in English Garden Wall bond, typically comprising three courses of stretchers between those of headers, with thin hand-made bricks measuring approximately 9" x 4¼" x 2" (229 x 108 x 50mm), and bonded in a pale lime and sand mortar (Plate 11).



Plate 11: General aspect of the Kitchen (G10), with large inglenook fireplace and bread ovens

- 4.2.11 The east elevation housed two large windows at its northern end, almost certainly inserted in the late-nineteenth century, and comprising six-light vertical windows with moulded timber mullions and transom, similar in style to those of the Great Hall (G4). At the southern end of the east elevation, a doorway afforded access into the low end of The Great Hall (Fig 3). The western side of the doorway was rebated into the kitchen wall, with the door being set in a three-centred basket arch comprising alternating headers and stretchers (Plate 12). A stone block within the structure of the doorway was intended to house a pintel for the door hinge. The opposite face showed the door aperture to have a substantial stop-chamfered lintel.
- 4.2.12 The southern wall of the kitchen appeared to form a contemporary return of the east wall, and was similarly constructed in English Garden Wall bond. An opening towards the western part of the wall had been blocked with machine-made brick, using a cement mortar, suggesting a twentieth century date, and its irregular shape would appear consistent with the blocking of a fireplace and rebuilding of the flue (Plate 13). A rectangular aperture at approximately door-head level, and with a concrete lintel, almost certainly represents access inserted into the flue. The full brick-thickness wall also appeared to retain a fireplace in the corresponding position on its southern face, within Room G9 (Fig 3). A wide doorway, towards the eastern end of the wall, may occupy an original position, but had certainly been remodelled, with the insertion of a concrete lintel, above a simple timber architrave (Plate 13).



Plate 12: Internal doorway from the Kitchen(G10) through to the low end of the Great Hall(G11)

4.2.13 The west wall was again of two brick-thickness, and incorporated a wide three-centred arch into a tower projecting from the western façade (Fig 3; Plates 11 and 13). The brickwork around, and forming this opening, was consistent with the other walls, suggesting that the tower was contemporary with the earliest extant fabric of the west wing. The upper three courses of this part of the west wall, however, had been rebuilt, above and to the south of the doorway, suggesting a possible change in ceiling height.



Plate 13: View of the Kitchen (G10), showing flue aperture and re-modelled doorway

4.2.14 To the north, the wall had a 3.4m wide rebuild in similar machine-made brick to that to the south. It was straight-sided in the centre, becoming more ragged towards the base and the ceiling (Plates 11 and 14). The rebuild houses two cast-iron oven double-doors (Plate 14), each below a cast-iron lintel, stamped 'J JENNISON^S PATENT MANCHESTER'. These are almost certainly bread ovens, and appear to have been inserted in the late-nineteenth century. There was no direct evidence for the ovens on the external face of the wall, although it had been rebuilt in a different sequence of English Garden Wall bond from the original wall to the north. In addition, results from both the watching brief (See wall **23** in *Section 4.5.16*, below) and the more extensive excavations undertaken by UMAU in 1991 (GMAU 1991), revealed a possible structure placed adjacent to the west wing, which would almost certainly have incorporated the ovens.



Plate 14: Detail of inserted bread ovens

4.2.15 Immediately to the north of the bread ovens, the return of the north wall was incorporated into a large inglenook fireplace. This had been modified on at least one occasion, and comprised the majority of the north elevation, the full brick-thickness firehood being carried on a large-scantling, flat-chamfered bressumer, with decorative broach stops (Plate 15). This spans the full elevation, forming a lintel to a heck passage on the eastern side of the fireplace (Plate 15). This passage had been extensively remodelled, showing evidence for at least three phases, having originally been open into the room to the north, and blocked and re-opened, subsequently.



Plate 15: Inglenook fireplace in the Kitchen (G10)

4.2.16 A reduction in the depth of the inglenook fireplace, creating a narrow passage between the fireplace and the north wall of the kitchen (Fig 3) was presumably undertaken concurrently with one of the alterations to the access between the kitchen and the Radclyffe Meeting Room (**G11**). It comprised a single-skin wall of machine-made brick, bonded in a black sooty mortar. Whilst it has been suggested that the passage formed a flue to the bread ovens (UMAUI 2009), no evidence was observed for any such flue externally. Moreover, an arched aperture in the western wall of the inglenook, blocked subsequently by the partition wall (Plates 14 and 15), would have been far more suited for an oven and flue. The passage is more likely to simply represent a cross-passage, allowing access from the courtyard at the front of the hall, to a later kitchen and gardens to the west. This appears to have been undertaken in the late-nineteenth century, by which time the hall comprised two dwellings. The probable doorway at the western end of the passageway may have been blocked at the same time as the removal of the original oven, whilst that in the eastern end was remodelled to form a window.

4.2.17 **Radclyffe Room, lift base and toilet works (G11A and G11B):** in order to improve access to the first and second floors of the building (the Egerton Lobby (**F8**) and the Roof Space (**S4** to **S9**) above), a lift was inserted into southern end of the Radclyffe Room (Fig 3). As in the kitchen to the south, the wall finishes were also removed (Plate 16) allowing for more detailed analysis of the room than had been previously possible.



Plate 16: General aspect of the Radclyffe Room (G11B), with inserted piers and doorway

4.2.18 Where original fabric survived, the elevations were similar to those of the kitchen, comprising hand-made brick, laid in three-stretcher English Garden Wall bond, using a pale lime mortar. The two long elevations were heavily remodelled, with brick piers added to each elevation to support re-positioned ceiling beams above (Plate 16), the southern of which spanned to the east wall above an extant doorway, and had a run-out stop chamfer. The piers were concrete-capped, and almost certainly of twentieth-century date. The beams were all of relatively large scantling, and chamfered, with several retaining mortises and auger holes, being evidence of earlier use within timber framing (Plate 17).



Plate 17: Ceiling within the Radclyffe Room (G11B), showing re-used beams

4.2.19 Large doorways were inserted into both east and west elevations, with associated late-nineteenth or early-twentieth century rebuilding, with that in the west elevation replacing an earlier doorway immediately to the north, which was possibly blocked at a slightly earlier date, the brick being bonded in a black sooty mortar. A tall, segmental-arched doorway into the Stair Tower (G13) in the eastern elevation, was blocked for the construction of one of the adjacent brick piers (Plate 18), demonstrating that access was not required from the stairs to the ground floor by this time. A padstone for a pintel, as that seen within the kitchen (Section 4.2.11, above), was present to the left side of the blocking.

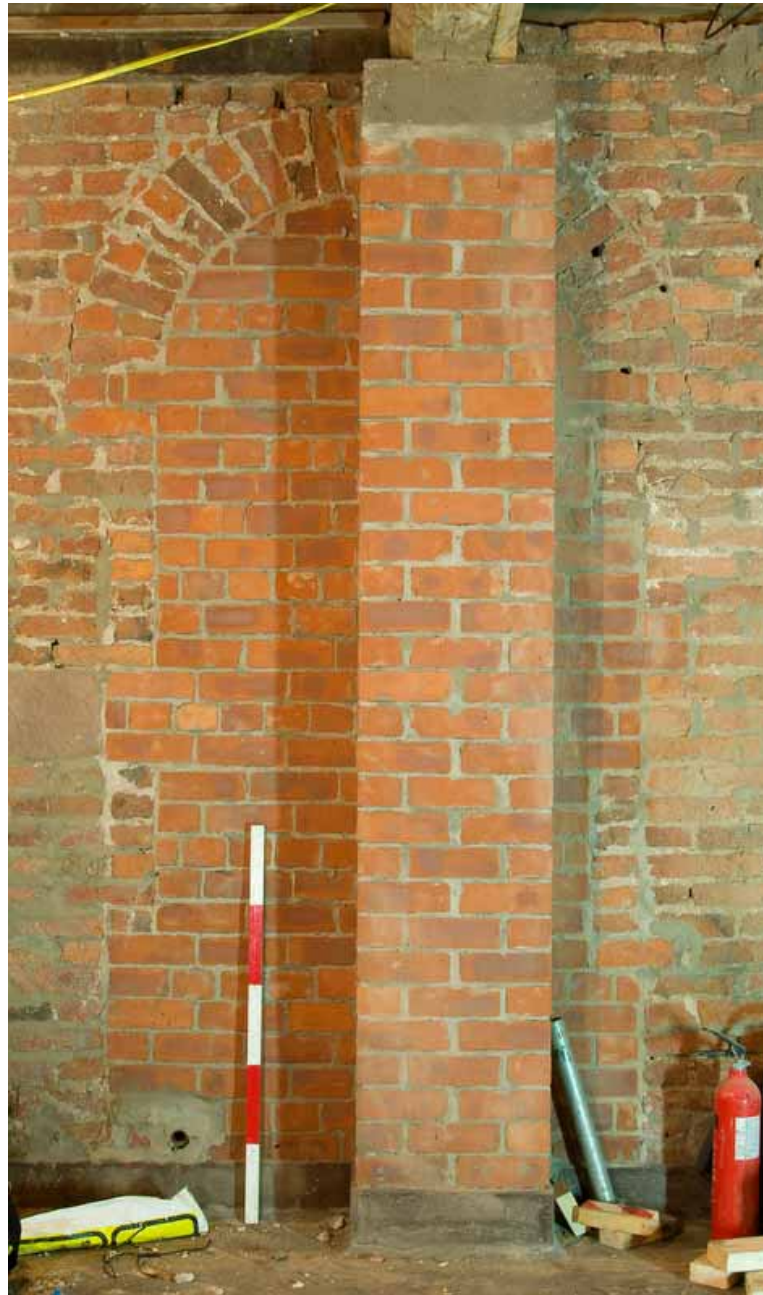


Plate 18: Blocked doorway into Stair Tower (G13)

4.2.20 The north and south elevations both contained blocked fireplaces. That in the north wall was offset to the left of centre, giving symmetry to the elevation, which had a doorway at its right-hand side into the annexe to the north (Fig 3). The fireplace was approximately 4' (1.22m) wide, and had a very shallow basket-handle arch, and was blocked with twentieth-century machine-made brick, bonded in a cement mortar similar to that used in the construction of the brick piers (Plate 19). The flue above had also been rebuilt on at least one occasion. The doorway within the north wall also had been remodelled in the twentieth century, with the round-headed arch being removed on the facing skin of the two brick-thickness wall, and replaced with a flat lintel, presumably in order to house a standard timber door frame (Plate 19). The fireplace in the southern elevation was placed on the right side of a projecting chimney-breast (Plate 20), which shared a flue with the large inglenook fireplace to the rear in the kitchen. The hearth appears to originally have been positioned centrally within the chimney-breast, and was approximately 4' (1.22m) wide. It was subsequently narrowed on its left side, whilst being extended to the right. The new aperture had a two-row segmental arch, incorporating machine-made and refractory brick, bonded in black sooty mortar (Plate 20), both suggesting a late-nineteenth or early-twentieth century date for the remodelling. The fireplace was blocked with similar brickwork to that in the north elevation, almost certainly in the twentieth century.



Plate 19: Blocked fireplace and remodelled doorway, the Radcylffe Room



Plate 20: Blocked and remodelled fireplace, south wall, the Radclyffe Room

4.2.21 **Stair Tower (G13):** partitions and wall finishes within the tower were removed in order to insert a new staircase. The three-storey tower comprised Rooms **G13**, **F12**, and **S9** (Figs 3, 4 and 5), and appeared to have been an addition to the west wing, with a straight joint visible internally between the north wall of the stair tower and the east wall of the west wing. The walls were of hand-made brick construction, laid in three-stretcher English Garden Wall bond, using a pale lime mortar (Plate 21). The bricks were of typical eighteenth or nineteenth-century dimensions, measuring 9 x 4 ½ x 2 ½” (228 x 114 x 63mm). Several patches of machine-made brick repairs were observed, as were similar rebuilds around remodelled window apertures (Plate 21). The walls were of 1½ brick-thickness, except for at second-floor level, where the thickness was reduced to a single brick; this being tied into each corner of the wider wall below by brick piers six-courses high and one brick wide (Plate 22).



Plate 21: Remodelled first-floor window in Stair Tower



Plate 22: Reduced wall thickness at second-floor level of the stair tower

4.2.22 A doorway in the east wall afforded access through the main façade of the tower. This had been narrowed slightly, and the remodelled lintel, may originally have been arched. The original north jamb contained two sandstone blocks, similar to those in the kitchen and the Radclyffe Room (*Sections 4.2.11 and 4.2.19* above), supporting the hinge pintels (Plate 23). Original access into the ground floor of the west wing was via a large doorway at the north end of the west wall, described on its opposite face in the Radclyffe Room (*Section 4.2.19*, above; Plates 18 and 24). This was latterly replaced by a door at the southern end of the elevation, which had itself been removed prior to commencement of the watching brief. A similar, but smaller doorway at first floor level (Plate 24) was also blocked, and had been replaced by a centrally-placed doorway, with concrete lintel, and of twentieth century date. The third floor was accessed via a pair of arched doors set within timber framing (Plate 25).



Plate 23: Remodelled entrance in Stair Tower



Plate 24: Blocked doorways in the Stair Tower, at ground and first floor level



Plate 25: Timber-framed doorway to second floor, with roof detail above

4.2.23 The ground floor (Room **G13**) had windows in all of the external elevations (Fig 3). A large horizontal three-light window in the north elevation, with plaster-rolled brick mullions similar to those of the larger first-floor window (Plate 21), had been reduced in height, the base having been infilled with modern brickwork. A smaller, two-light mullioned window in the south elevation, was of similar style, although this appeared to have been inserted into an earlier aperture. A small, single-light window located to the left of the doorway in the east elevation, retained vertical wrought-iron bars (Plate 26). This had been blocked externally with a single skin of brickwork, and covered by panelling on the internal face. It appears to have been cut into the brickwork (Plate 26).



Plate 26: Small window with wrought-iron bars revealed at ground-floor level

4.2.24 The northern part of the stair tower had a herringbone brick floor (Plate 27) positioned at doorstep level, whilst although the southern part of the floor comprised a further brick floor, it was laid 15" (0.38m) below the level of that to the north. The square bases for both the main newel (offset slightly to the south), and the curtail newel post, were *in-situ*, with slightly raised brick forming the riser of the foot of the staircase beyond (Plate 28). Whilst the staircase was possibly a late-nineteenth century insertion, the stone newel pads were almost certainly original, and the arrangement of windows and original door apertures suggests the original stair was an open-string, quarter-turn staircase. The lower level of the southern part of the floor was probably designed to allow for increased access under the staircase.



Plate 27: Herring-bone brick floor of Stair Tower



Plate 28: Footings of staircase and newel

4.2.25 The first floor (Room **F12**) had only a single window, which was placed in the main façade, and comprised a large horizontal four-light, mullioned window, similar to those on the ground floor, but retaining a timber lintel, although it too had been reduced in height at sill level (Plate 21). At second-floor level (Room **S9**) a further three-light mullioned window had a central light extending into the gable above. The mullions and transom were of bare brick,

each mullion being quite degraded (Plate 29). The glazing within this window also differed from those below, comprising diagonal leaded comes, rather than the larger squares below, suggesting it represented an earlier survival. A blank sandstone panel immediately below the window on the external face, was not visible internally, however, the rear of the terracotta wall plaque, dated to 1898, was clearly visible within an area of rebuilding, and was bonded in black sooty mortar (Plate 29). Evidence for a blocked horizontal aperture at eaves level in the south elevation was also observed, but given the lack of access within the tower it could not be examined in detail, although it possibly represented a blocked small window.



Plate 29: Inserted wall plaque, and window in Stair Tower gable

- 4.2.26 The pitched roof of the stair tower was visible from the ground floor (Room **G13**), and was of common rafter construction, carried on a single purlin to each pitch (Plate 25). It was of oak construction with the rafters on the southern pitch being of significantly lower scantling, and probably representing a late-nineteenth century replacement.
- 4.2.27 **Gardener's Office (G12)**: this small annexe was subjected to the removal of all wall finishes, allowing for a more detailed analysis of the fabric than had previously been possible. It comprised a single-storey extension to the west wing, with a pitched slate roof. Early-nineteenth century depictions of the property, however, show it to originally have been of similar three-storey height to the remainder of the west wing (Plates 2 and 3). Its similar brick construction, in three-stretcher English Garden Wall bond, and 1½ brick wall-thickness, suggests that it was constructed at a similar date to, and possibly concurrently with, the eastern stair tower.
- 4.2.28 Removal of the wall plaster revealed that the English Garden Wall bond continued through the full thickness of the wall. The door and small four-light window in the eastern wall appeared original, whilst a ragged, modern brick rebuild of the full height of the south end of the east wall was of unclear function, being too narrow for a doorway, or door rebate, and too tall for a window, suggesting that it merely represented a repair to damaged brickwork.

4.2.29 The large horizontal 12-light window in the north elevation (Plate 30) represented a replacement of an apparently similar earlier example. This appeared to be contemporary with the rebuilding of the north wall (Plate 30). This presumably dated to the reduction of the extension to single-storey height, quite probably undertaken during the major remodelling of the property at the turn of the twentieth century.



Plate 30: Rebuilt north wall of the Gardener's Office

4.2.30 The relatively short west wall contained four apertures, all having been blocked subsequently (Plate 31). At its southern end, it originally appeared to have housed a large full height doorway, being approximately 6' (1.83m) wide. A further doorway of similar width was inserted to the north of a narrow brick pier, providing access into a small lean-to extension which it is clearly depicted on a painting dated to 1830 (Plate 2). The southern aperture was then remodelled to form a 2' (0.61m) wide vertical window, which was also blocked subsequently. The doorway into the extension at the north end of the west wall was narrowed, almost certainly at the turn of the twentieth century, at which time the lean-to was removed, leaving an external door towards the north end of the west wall. Finally, this aperture was also blocked, with the door in the east wall becoming the only external access.

4.2.31 The south elevation, this being the earlier north end of the west wing, housed a large central chimney-breast, which utilised the flue of an earlier fireplace. The narrower, slightly offset position of the extension resulted in the access between the Radclyffe Room and the annexe, which was placed on the eastern side of both fireplaces, being a slightly dog-legged corridor (Fig 3). The fireplace had a flat brick lintel, supported on an iron plate, and had been remodelled to house the late nineteenthth century 'Triplex' range, identified during the earlier survey (UMAU 2009).



Plate 31: Blocked apertures in west wall of the annexe

- 4.2.32 The floor within the annexe comprised late-nineteenth century 6" (0.15m) ceramic quarry tiles, laid in a diamond pattern of red and black tiles. The raised brick hearth was bounded by edge-set refractory brick, and the alcove to the right of the chimney-breast appeared to have a concrete step of similar height, although this was obscured by the footing of a structural prop (Plate 31).
- 4.2.33 ***Frederic Sheilds Gallery (F5A)***: the floor within the gallery (Fig 4) was replaced, allowing an opportunity to examine the joist structure beneath. The floorboards themselves were simple oak planks, up to 5¾" (0.15m) wide, and 1" (0.03m) thick. The beams and joists below were nearly all rectangular in section, with many showing circular-saw marks, dating them to no earlier than the mid-nineteenth century. The ceiling below the floor sloped from west to east, and as a result, differing thicknesses of joists were utilised in an attempt to level the floor of the gallery. That at the east end of the floor was 9 x 3" (0.23 x 0.08m), whilst those at the western end of the floor were only 3 x 2" (0.08 x 0.05m). In the north-west corner of the room, several earlier joists survived, forming part of the ceiling for Rooms **G5A** and **G5B** below. These were 5½" (0.14m) wide, and were chamfered on both soffit edges, and tenoned into the beams, suggesting a medieval date, and thus forming part of the 1519 construction of the Great Hall. A few similar joists were observed at the eastern end of the room.
- 4.2.34 ***Egerton Gallery Chimney-breast (F7)***: a small L-shaped stub of wall was removed in the north-eastern corner of the gallery, at the southern end of the corridor to the stair tower (Fig 4). This butted the southern face of the sloping wall of the substantial chimney-stack (Plate 32), present in the room, and was presumably inserted to provide a vertical wall in which to set a frame for a door between the gallery and the corridor. Removal of the wall revealed a

continuation of the brickwork of the stack around its south-eastern corner, where it was constructed in three-stretcher English Garden Wall bond. A small section of plaster, which predated the L-shaped wall, survived at the base of the chimney-stack (Plate 32).



Plate 32: Chimney-stack revealed by removal of a later wall in the Egerton Gallery

4.2.35 **The Lord's or Great Chamber Floor (F3):** the floor in this room was partly revealed by the removal of much of the existing floor boards (Plate 33). The specification for the refurbishment of the building required that the floor in this room be strengthened, and previous interventions were to be left *in situ* by the contractors. The floor remained in the same condition as when drawn by the GMAU survey of 1993 (GMAU 1995, Fig 9).



Plate 33: Area of floor structure exposed in the Lord's Chamber

- 4.2.36 The floor comprised four large-scantling beams attached to the post of the wall-frame in the western elevation of the room, although, unfortunately, the joints could not be examined. The beams were placed on an east/west alignment and had two equidistant binders, of slightly lower scantling, but of similar square-section, tenoned into their faces (Plate 33). Smaller scantling, square section oak joists were again tenoned into the binders, parallel to the main floor beams. It has been previously postulated that the southern-most beam formed the original extent of the room, marking the position of the original gable (GMAU 1995, 11). The joists within the narrower southern bay were markedly different, comprising straight, rectangular-section timbers, placed on a perpendicular alignment to those to the north, and extending a further bay into the room, where they were notched over the earlier joists (Plate 34). The northern bay of the room also had remodelled flooring, with much lower-scantling, rectangular-section pine joists, lap-jointed into two more centrally-placed binders of similar size (Plate 33).
- 4.2.37 The floor structure also had been subjected to various phases of minor repairs. Some modern L-shaped brackets had been added to supplement the timber jointing in several places. Notches also had been cut into some of the beams and joists for the insertion of cables and wires. Steel-mesh reinforced mortar had been applied to the spaces between the main structural members, obscuring the nature of the upper face of the Star Chamber Ceiling, which appeared to be of lime. The entire floor was sealed by 8" (0.20m) wide square-edged floorboards (Plate 33), with an array of packing pieces used to level the floor.



Plate 34: Later joists associated with an extension to the south of the Great Chamber, notched over the earlier fabric

4.2.38 An I-section rolled-steel joist situated below the threshold between Room **F3** and Room **F1** (Plate 35), bore no makers stamp, and appears to be of mid/late twentieth century date. Whilst the timber rail of the wall-frame survived *in situ* behind it, the steel joist appears to have been inserted to carry the structural load of the floor of Room **F1**, which was placed at a higher level than that to the west (Plate 35).



Plate 35: Steel beam inserted to support wall frame and floor

- 4.2.39 **Reduction in floor level of the East Wing Landing (Room F1):** this room is situated at the north-east corner of the east wing, and together with the East Wing Lobby below (Room G1) was having a staircase inserted to provide easier access to the upper floor. The floor level within this room was reduced by 100mm. The watching brief was undertaken following the removal of the extant floorboards. Inspection of exposed features was limited, due to health and safety restrictions.
- 4.2.40 The removal of the existing floor left a wide scar, approximately 7½” (0.19m) wide (Plate 36), around the base of the north, south and east walls (the west side of the floor remained intact at the time of the inspection). The walls were of hand-made brick construction, typically measuring 9 x 4 x 2¼” (0.23 x 0.10 x 0.06m), bonded with pale with lime mortar. The evenly-spaced, vertical-section joist slots for the recently removed floor were visible in both the north and south walls (Plate 36).



Plate 36: Extent of wall-strip for watching brief, Room F1

4.3 THE ROOF SPACE (S6-S9)

- 4.3.1 **Timber-framing in the Roof Space (S6-S9):** whilst the trusses within the eastern extant part of the hall were examined in some detail in 1993 (GMAU 1995), no such recording of the roof space of the west wing was possible at that time. Access provided to the second floor during the recent renovations allowed for the recording of the three trusses within the west wing (Fig 5), and also for a more detailed recording of the roof structure of the entire hall (Section 4.3, below).
- 4.3.2 The three trusses were of similar style, and had been heavily altered from their original form. They formed a continuation of the timber-framing below, which had been replaced with brick walls. Each truss comprised five panels, each

double-pegged within mortices in the tie-beam, and with only single pegs into the much lower-scantling rail at floor level (Plate 37). This rail was almost certainly a replacement, and redundant third peg-holes within the mortices on the soffits of the tie beams suggest that the posts may have also been replaced (Plate 37).



Plate 37: Detail of truss within Room S9, showing pegged assembly

- 4.3.3 Above the tie-beams, large scantling principal rafters were quadruple-pegged into mortices, and formed a birdsmouth at their apex, clasping a more slender square-section ridge purlin (Plate 38). Two angled-braces above a collar were also incorporated into the truss, all having double-pegged mortices. However, all of the collars had two empty central mortices (Plate 38), and the joint forming the birdsmouth for the ridge appeared very untidy carpentry in comparison to other elements of the timber-framing. A peg-hole near the apex of each of the western pitch principal rafters appears to represent the remains of a mortice (Plate 38), with the rafter originally oversailing that to the east. The empty mortices in the collar were matched by a similarly positioned mortice in the tie-beam (Plate 39), and by mortices on the soffit of each of the upper principal rafters. This represents an unusual arrangement, whereby two vertical struts gave the impression of a king-post, but lacked its structural role, being broken by the collar, which provided the support.
- 4.3.4 The timber-framing within the trusses was infilled with daub, or wattle and daub panels, supported by staves (Plates 37, 38, and 39). Several of the panels were empty (Plate 40), whilst the upper panel of the central truss had been infilled with brick nogging (Plate 38), quite possibly during the construction of the present west wing.



Plate 38: Detail of truss apex, showing ridge assembly, and brick noggin



Plate 39: Assembly marks and redundant mortices, with wattle and daub panelling



Plate 40: Southern truss of the west wing, with original wind braces

- 4.3.5 Each of the trusses had inscribed assembly marks on their northern faces, although not fully discernible, the numerals IIII and V were present with some additional tags. Chiselled I and II marks were observed on the tie-beams of each of the trusses, with corresponding marks on the arched braces from the tie-beams (Plate 39). The two purlins to each pitch were butt-ended into the trusses, and had arched wind braces from the principal rafters on both north and south sides (Plate 40).
- 4.3.6 The northern truss, forming a partition between Rooms **S9** and **S8** (Fig 6), differs from those to the south, in that it has a central doorway, with a carved four-pointed arched head, being cut from the tie-beam (Plate 37). This represents a secondary feature, cut through the truss, with auger holes for the earlier staves visible in the bottom rail. The upper, northern, face of the truss was refaced either side of the door with lath and plaster panelling, containing horse-hair. This had also been applied to the other panels of the upper face (Plate 37). The lower face appears to have been left exposed, showing the post inserted to form the western door jamb, which was hung by pintels on this face (Plate 41).
- 4.3.7 The northern and central truss also had timber flich plates at the western end of their upper faces (Fig 6), whilst the exposed eastern end of the northern and southern tie-beams suggested that the original wall-frame was constructed with normal assembly, the end of the tie-beam being rebated to house the wall plate, and having a peg-hole to the inside for the jowled head of the wall-post (Plates 40 and 41).



Plate 41: Lower face of northern truss of west wing, with remodelled doorway

- 4.3.8 The eastern end of the tie-beam in the central truss was socketed into the jamb mullion of the southern door into the stair tower. This utilised a simple unpegged mortice, definitely representing a rebuild of the frame. Several of the posts within the wall panel below the tie-beam also had redundant mortices in their edges, strongly suggesting their re-use, above a narrow scantling floor joist, as in the other trusses. Similarly, apparently re-used posts were also observed in the southern truss.

4.4 THE ROOF STRUCTURE

- 4.4.1 **The Roof:** the removal of slates from the entire roof of the hall afforded a rare opportunity to record its structure. This was undertaken from a scaffold erected around the building. An extensive collection of detailed photographs were taken, and an outline description and chronological sequence has also been prepared. The majority of the roof structure was also surveyed independently with a laser scanner, the results of which are presented separately (*Section 4.5*). The Ordsall Hall roof comprised 14 distinct elements (Fig 5) each of which was ascribed an identifier (Letters A to M), and is described below.

- 4.4.2 **Roof A:** this represents the roof above Room S2, in the south-eastern corner of the east wing (Fig 5). For the main part the roof was east/west aligned, with gables to the south and east. Both gables were of brick construction, with the ridge and single side purlins housed within the eastern gable, and passing through the smaller southern gable, which was of single-skin thickness (Plate 42). Each valley of the southern gable had two valley rafters: a full-length valley rafter, onto which the rafters of the gable were nailed; and a shorter rafter, with a splayed scarf onto the valley rafter, which in turn housed the feet of the rafters of the steeper eastern gable (Plate 42).



Plate 42: Roof A, with timbers projecting through single-skin southern gable (left)

- 4.4.3 The roof contained a large rectangular chimney-breast, with a triple-pillared chimney-stack rising through the ridge, in a T-shape plan arrangement (Plate 39). Each contained two flues within stretcher bond stacks, and was tied into the adjacent pillar at both the crown and the mantel (Plate 43). The internal faces between the stacks were infilled with decorative brickwork arranged in a zigzag pattern (Plate 43). The pots were squared, with diamond panels, above a chamfered crown cap (Plate 43). The ridge purlins of the roof were socketed into the chimney stack. To the west the ridge was supported purely by the attached rafters, the western end resting only partially on the lower scantling northern valley rafter, which overlay Roof C (Plate 43). The southern valley rafter terminated prior to the ridge, where it butted an adjacent rafter.



Plate 43: Roof A, with triple-pillared chimney-stack and remodelled purlins and rafters

- 4.4.4 Internally, the second floor had a suspended ceiling of lath and plaster construction. The eaves were undersealed to the height of the purlin on each pitch, which had runners nailed to their soffits, and also to the rafters supporting the ceiling beams below (Plate 43). Hanger timbers nailed to the ridge purlin supported a further central runner.
- 4.4.5 The generally rectangular-section of the roof timbers, and the method of the roof's construction, exclusively comprising nails, suggests a late-nineteenth or early-twentieth century date of construction. To the west of the chimney, however, the lower purlin and wall-plate of the northern pitch appeared to comprise re-used telegraph poles (Plate 43), suggesting a mid-twentieth century date for this element of the roof. The ridge purlins, which were of a more waney-edged nature, and of approximately square-section, were almost certainly re-used from an earlier roof structure.
- 4.4.6 **Roof B:** this small north/south aligned pitched roof, covered the northern part of the eastern annexe of the hall (Fig 3). It contained only a single truss positioned towards its southern end, and relatively close to its junction with Roof A. This was at a greater height than Roof B, the ridge of Roof B being at the wall-head height of Roof A (Plate 44). The truss simply comprised a slender tie-beam, which appeared to be halved into the ceiling joist below, from which raking struts supported the two purlins on each pitch, and the ridge plate (Plate 44). The common rafters were completely independent of the truss, and were arranged in pairs to the north of the chimney-stack, with the southern member oversailing that to the north. The chimney was rectangular in plan, and had a stack constructed of similar brick to that within Roof A, and also with squared pots with diamond panels (Plate 43).



Plate 44: Relationship between Roofs A (left) and B (right)

- 4.4.7 To the south of the chimney the rafters were arranged in offset pairs, with those on the western side being interrupted with trimmers for a timber water

tank, which was housed in the valley between Roofs **B** and **C** (Plate 45). At their base, the rafters on this pitch were also strengthened, being sprocketed onto the wall plates at the northern end, and onto the lower purlin of Roof **C**, further to the south (Plate 45).



*Plate 45: Timber water tank between Roofs **B** (left) and **C** (right)*

4.4.8 **Roof C:** this north/south aligned pitched roof was partially obscured by the later Roofs **A** and **D**, but represents the earliest and most intricate element of the hall's roof structure. It has been described previously by W John Smith in 1972 (UMAU 1995), and a brief summary of its components is included below.

4.4.9 The roof retains two cranked tie-beams, each carrying a central crown-post, held in position by down-braces. Those on the southern truss are convex, whilst to the north they are concave (Plate 46). The foot of each crown-post is splayed to accommodate a straight longitudinal brace to a collar purlin, which is clasped by the jowled head of the crown-post (Plate 46). Both crown-posts retained evidence for tenons at their heads, for jointing to a collar above. At the northern end of the roof the collar purlin is socketted into the brick gable. However, it retains a notched lap joint adjacent to the wall (Smith 1995, Fig 12), denoting the position for a further arched brace, which would have been attached to a crown-post in the position of the present brick gable.



Plate 46: Northern truss, clasp crown post, Roof C

4.4.10 Between the two trusses the roof retains its original form, comprising seven lower scantling common rafter trusses, the collars of which were carried on the collar purlin (Plates 46 and 47), but were also braced to each rafter by straight 'soulaces' (Plate 47). These are joined with notched oblique lap joints, on differing faces (Plate 47), with the collars having similar joints to the rafters, whilst the rafters of each pitch have a simple halved lap joint at the apex of the roof (Plate 48), all joints being single-pegged (Plates 47 and 48). It is noteworthy that this original form of the roof had neither a ridge nor side purlins, with the longitudinal stability being provided solely by the collar purlin.



Plate 47: South truss, with detail of rafter, collar, and soulace construction, Roof C



Plate 48: Halved and pegged common rafters, Roof C

- 4.4.11 The northern two rafters appear to have been cut too short for their intended role, and had small extensions added, presumably prior to the erection of the frame, using stop-splayed scarf joints (Plate 49). Many of the timbers of the common trusses bear carpenter's assembly marks. It would appear that the series was numbered from the southern end, with the trusses having their upper faces on the northern side. However, the trusses appear not to have been arranged in the order that they were numbered, with the sequence apparently being I, II, VII, VIII, V, X, and VIII. These trusses could easily have been positioned once the wall frame below had been erected, and it is therefore likely that their final position was unimportant. The wall plate was jointed immediately beneath the northern extant crown-post truss, using a splayed scarf, with over-squinted abutments (*ibid*).
- 4.4.12 The southern three rafters between the trusses have been remodelled with late jack rafters replacing the upper elements, and forming part of a southward extension of the roof, which had a low-scantling ridge and two side purlins added to the earlier structure (Plate 50). These were trenched into short principal rafters which were added to the crown-post truss (Plate 51), rising to only the height of the upper purlin. Additional braces to the upper purlin and ridge were also bolted with an iron plate to horizontal timber pads below (Plate 51). The northern part of the roof also had been heavily remodelled, again with two side purlins and a re-used ridge purlin being inserted. The replaced square-section rafters were attached to the ridge with large round-headed nails (Plate 52).



Plate 49: Eastern truss, Roof D, with scarfed common rafters of Roof C behind (bottom right)



Plate 50: Remodelled southern part of Roof C



Plate 51: Remodelling of southern truss, Roof C, with inserted short principal rafters



Plate 52: Re-used ridge purlin and common rafters, northern part of Roof C

4.4.13 The main elements of the early roof structure were all stop-chamfered (Plates 46 and 51), strongly suggesting that the roof was originally open to the Lord's

Chamber (**F3**) below. An inserted lath and plaster ceiling was supported by rectangular-section runners, which were nailed to the tie-beams, socketed into the gable walls, and further supported by runners, nailed onto the rafters (Plates 46, 47, 50, and 51).

- 4.4.14 **Roof D:** this was the largest of the roof elements, comprising the long east/west aligned roof of the Great Hall (**G4**). This was open from the ground floor to the rafters, which were undersealed with plaster, and decorated with quatrefoil panelling. The internal arrangement of the roof has been described previously, and is therefore not described in detail within this report. However, the removal of slates and batons from the roof, prior to the watching brief (Plate 53), allowed for the examination of the roof structure from above, providing additional information about its construction and phasing.



Plate 53: General view of stripped Roof D, with sprocketing to southern parapet

- 4.4.15 The carpentry of the purlins and panels comprised single-pegged mortice and tenon joints (Plate 54), with the exception of the longitudinal joints between purlins. That observed on the ridge purlin had a splayed scarf joint with bridled and squared abutments, the evidence for the bridle comprising a peg below the splay, which would have been redundant without the internal bridling (Plate 55).



Plate 54: Pegged jointing of decorative timber panels on Roof D



Plate 55: Bridled scarf joint in ridge purlin (Roof D)

4.4.16 Incised carpenter's assembly marks were observed on many of the joints, comprising Roman numerals and tags (Plate 54). The ceiling below was formed onto riven oak laths (Plates 53 and 54), laid above the decorative panels and purlins, but beneath the rectangular-section common rafters. These were set in opposing pairs, the northern member being bridled, and clasped and pegged into the southern rafter (Plates 55 and 56). Several replacement rafters of similar scantling had squared ends, and were nailed to the ridge (Plates 53 and 56). On the southern pitch, the rafters were sprocketed onto the later parapet (Plate 53). The third bay from the eastern end of the lath and plaster ceiling contained a steel sheet between the upper and ridge purlin on each pitch, which was held in position by short re-used jack rafters (Plate 56). This represents the infilling of the original open louvre of the Great Hall (G4),

with the ceiling below the steel sheets having been infilled with plaster. Whilst of apparently relatively modern date, the sheets almost certainly represent the replacement of an earlier blocking, which may have failed to maintain a waterproof membrane to the ceiling.



Plate 56: Blocked louvre, southern pitch, Roof D

- 4.4.17 At the eastern end of the Great Hall (**G4**), the truss was also decorated with quatrefoil panelling and lime rendering. This was attached to the upper face of a king-post truss, visible within the roof space (Plates 53, 57 and 50). The king-post was capped with a saddle, triple-pegged into the principal rafters (Plate 57). All other joints were double-pegged mortice and tenons comprising rails and studs to form small square panels (Plate 58). Smaller peg holes for the decorative panelling on the opposite face were also visible (Plate 58). The three square-section purlins were butt-jointed into the truss, and were stop-chamfered, as was the similar scantling ridge purlin (Plate 57), strongly suggesting that this part of the roof was also originally open to the rafters. A further truss 5'6" (1.68m) to the south was of similar style, with a cambered tie-beam, and a king-post below a saddle (Plate 49). The truss was devoid of the panelling but had mortices on the soffit of the principal rafters, and a grooved upper surface of the tie-beam, suggesting that the infilling was formed by angled braces, similar to that at the southern end of Roof **F** (Section 4.4.21, below).
- 4.4.18 Unfortunately, no access was possible to examine the detail of the joint between this truss, and the perpendicular truss of the earlier Roof **C** to the immediate east (Plate 49). However, it appears to comprise a relatively large-scantling trimmer to a ceiling joist of Roof **C** (Plate 49).
- 4.4.19 **Roof E**: this was a dormer roof added to the northern side of Roof **D** (Fig). It comprised two king-post trusses (Plate 59), and given the size of the roof was of relatively large scantling.



Plate 57: Lower face of truss forming Dais in Great Hall (Roof D)



Plate 58: Saddle within truss construction, and pegging of decorative panelling (Roof D)

4.4.20 Each truss had double-pegged principal rafters, and a single, rectangular-section trenched purlin was present to each pitch. Each king-post had a birdsmouth apex, clasping the square-section ridge purlin, whilst each principal rafter had a notched oblique lap-jointed straight wind brace, which was tenoned into the purlin (Plate 60). The rafters, which were arranged in pairs, were nailed onto the wall plate, purlin, and ridge, with square-headed

large nails (Plate 59), with those on the eastern side oversailing those to the west.



Plate 59: Roof E, with king-post truss either end, and vaulted ceiling

4.4.21 The ceiling below was barrel-vaulted, and formed of lath and plaster, the runners for which were three-pieced, and essentially comprising slender arch-braces to the rafters (Plate 59). Either end of the ceiling met the tie-beams of the roof above (Plate 60).



Plate 60: Detail of wind-brace jointing (Roof E)

4.4.22 **Roof F:** this roof was aligned perpendicular to the roof of the Great Hall (G4), projecting beyond it to both the north and south, and finished with jetties at these ends (Fig 5). Its construction comprised king-post trusses, with slightly cambered tie-beams, and with straight braces from the tie-beam to below the single trenched purlin on each pitch (Plate 61). The purlins had straight wind

braces, with notched lap-joints to the principal rafters, although several had been removed. The king-posts had birdsmouth apices, clasping the square-section ridge (Plate 61), which in turn comprised several members, each with splayed scarf joints with square vertical abutments (Plate 62).



Plate 61: Truss detail, Roof F



Plate 62: Aspect of roofs from west. Note bridled scarf joints on ridge of transverse Roof F

4.4.23 All of the joints were double-pegged, except for the wall-plates, which were triple-pegged onto the wall-frame post (Plate 63), suggesting normal assembly with an internal upstand. The jetty bressumer at the northern end of the roof was single-pegged to the wall-plate (Plate 63). It was rather unusual in that it did not house the studs for the gable façade, instead having only a central wrought-iron bolt (Plate 64), and this probably to strengthen the rail supporting the jetty coving located approximately 3' (0.91m) below (Plate 61). The façade of the southern gable was placed against a repositioned truss, located approximately 2' (0.61m) to the north of the façade (Plate 65). This was presumably originally positioned further out to the south, with a bladed scarf joint immediately below this truss in the eastern wall plate (Plate 64), also suggesting that the roof originally continued for a considerable distance to the south.



Plate 63: Triple-pegged wall frame, showing normal assembly, and with jetty bressumer beam to left (Roof F)



Plate 64: Jetty bressumer and trusses, northern end of Roof F

4.4.24 The jettied north gable comprised a king-post above a moulded beam, supported on decorated console brackets. The infill comprised double-pegged studs and rails forming quatrefoil panels, matching those of the Great Hall (G4). The southern jettied gable reflected the style of the truss behind it and had a series of raking struts forming the decoration either side of a central stud (Plate 65).



Plate 65: Repositioned truss and scarf-jointed wall-plate, southern gable, Roof F

- 4.4.25 The square-section rafters of the north gable were nailed onto square-section plates using heavy square-headed nails. The square-headed plates were attached to the outer edge of the wall-plates at the northern end of the east pitch (Plate 63), and also to the purlin and ridge, and again with heavy square-headed nails. Several of the rafters were short, only spanning between the wall-plate and purlin, and purlin and ridge (Plate 62).
- 4.4.26 **Roof G:** this short and wide roof linked the east and west wings of the hall. It was asymmetrical, with the ridge offset to the south, forming a continuation of that of Roof **D** (Fig 5). The present roof structure appeared to replace an earlier structure. Evidence for this was the tie-beam being incorporated into a brick wall at the western end of the roof. This was jointed onto a wall-frame post at the south-western corner of the roof. Although the wall-plate was missing, the joint appeared to represent normal assembly with the outside upstand almost certainly chamfered in line with the eaves at a later date (Plate 66).



Plate 66: Brick gable, incorporating tie beam with normal assembly to wall post (Roof G)

- 4.4.27 The roof had no trusses, being carried on the brick walls of the Frederic Shields Gallery (Room **F5** (Fig 5)), and comprised a single purlin to the southern pitch, and two purlins on the deeper northern pitch, all of rectangular section. The square-section ridge purlin was re-used, quite probably from its present position, and comprised two timbers jointed by a simple splayed scarf. Short rafters spanned each purlin, and were nailed to the ridge in offset pairs.

4.4.28 **Roof H:** this short gable roof was hipped on its northern side, creating an internal valley within the overall roof structure (Fig 5). The valley was drained by a channel along the west side of the roof, adjacent to the wall below Roof **I**. The roof structure comprised a single king-post truss of machine-cut rectangular-section, with hip purlins on its north side. This was augmented by a principal rafter which was placed perpendicular to the truss, and which supported the trenched purlin of the hip (Plate 67). The north-eastern hip rafter was of larger scantling than the other timbers, and was a re-used timber from an earlier roof. The king-post had a jowled head, clasping the slender ridge board, with the principal rafters being attached by bolts. The jack rafters were trenched into the hip rafters, with the common rafters being nailed onto the purlins, ridge and wall plates. The rafters were also sprocketed onto the wall plate of Roofs **F** and **G**. A small planked louver spanned the ridge board adjacent to the truss (Plate 67), but detailed examination was not possible.



Plate 67: Late hipped Roof H, with raised timber louver

4.4.29 **Roof I:** this was also a short-gabled structure, narrower and steeper than Roof **H**, and with higher walls to Room **S3** (Fig 5). The roof was supported on the north and south walls of Room **S3**, and comprised a ridge and a single purlin to each pitch (Plate 68). The ridge was square-sectioned, and probably from an earlier roof. The purlins were of larger-scantling rectangular-section softwood; the eastern one displaying Baltic shipping marks (Plate 69), suggesting a nineteenth-century date for the roof. The opposing pairs of common rafters were trenched into the purlins, and nailed to the face of the ridge, and onto the narrow wall plates (Plate 68).



Plate 68: Roof I, looking west



Plate 69: Baltic shipping marks on eastern purlin, Roof I

4.4.30 The southern gable had a joggled terracotta window surround (Plate 70), the removal of the wall around the window revealing it to be stamped with the letters O.H and AX (Plate 70). The O.H clearly stood for Ordsall Hall, whilst the AX possibly represents a style or numbering system. A facing brick located in the wall nearby was stamped with the name 'Whittaker's Darwen'. The brick was a hard-glazed engineering brick, and the Victoria County History of the County of Lancaster (Farrer and Brownbill 1911), catalogues a glazed-brick manufacturer in Darwen at this time. Thus the brick almost

certainly dated from the extensive remodelling of the west wing at the turn of the twentieth century.



Plate 70: Joggled terracotta window surround, with maker's stamps 'O.H.' and 'AX' (Roof I)

- 4.4.31 **Roof J:** this covered the majority of the west wing, and had a supporting gable at both ends. It contained two small dormer gables (Roofs **K** and **L**) on projecting towers (Sections 4.4.32 and 4.4.33 below). The roof comprised three trusses and two brick cross-walls. The three trusses are described in Section 4.3 above. It is possible that the southernmost of the two cross-walls replaced a truss similar to those present to the north. The other cross-wall housed a large inglenook fireplace at ground level (kitchen), with a considerable chimney rising through the floors above (Fig 5). It is again possible, however, that a timber-wall frame and truss originally occupied this position.
- 4.4.32 The two square-section purlins of each pitch were butt-ended into the trusses (Plates 40 and 41), and the similar scantling ridge purlins were jointed with simple splayed scarf joints (Plate 71). Those to the south of the brick cross-wall between rooms **S5** and **S4** bore redundant mortices and peg holes, demonstrating their re-use. Replacement common rafters in offset pairs were nailed to the purlins and ridge. The ridge itself is capped with a smaller scantling member, presumably to carry later ridge tiles. The common rafters were jointed over the lower purlins, and were trenched into the wall-plates. The wall-plate at the north end of the west pitch had a bridled scarf joint (Plate 72) suggesting its re-use. Other wall-plates exhibited redundant mortices, again demonstrating their re-use.



Plate 71: Simple splayed scarf joint in ridge purlin above truss, Roof J



Plate 72: Bridled scarf joint in wall-plate, adjacent to north gable, Roof J

4.4.33 **Roof K:** this small roof above the kitchen bay window comprised a square-section ridge purlin, and two similar scantling side purlins to each pitch. These were notched onto the purlins of Roof J, and were overlain by jack rafters of various scantling, suggesting that it comprised re-used timbers from various phases (Plate 73).



Plate 73: Small pitched gable of western tower (Roof K)

4.4.34 **Roof L:** this was the roof to the stair tower projecting out from the west wing (Fig 5). The square-section ridge purlins were butt-jointed above the west wall of the stair tower, which was capped with timber saddles on each face (Plate 74). The single purlins to each pitch were re-used square-section timbers, the southern example having a notched lap joint for a wind brace (Plate 74), whereas the north side comprised two separate members trenched into the cross-wall (Plate 75). The square-section common rafters were nailed to the ridge (Plates 74 and 75) and birdsmouth-jointed onto a slender southern wall-plate, whilst those on the northern side were re-used rectangular-section short rafters, butt-jointed above the purlin (Plate 75).



Plate 74: Timber saddles below butt-jointed ridge purlins, and redundant lap joint in purlin below, Roof L



Plate 75: Trenched purlins and butt-jointed jack rafters, Roof L

4.4.35 **Roof M:** the original roof above the annexe to the northern end of the west wing was replaced when the annexe was reduced to single-storey height. The roof comprised machine-cut rectangular-section softwood purlins to each pitch, with a slender ridge board, all socketed into the brick gables. The straight, rectangular-section rafters were trenched through the side walls and wall plates, and the opposing pairs clasped the ridge board (Plate 76). Hangers from the purlins stabilised the ceiling joists below, the northern of which had slender braces to the purlins (Plate 76).



*Plate 76: Slender timbers of late **Roof M***

4.5 LASER SCAN OF THE ROOF STRUCTURE

4.5.1 Following the removal of the slates from the roof, a laser scan survey of the structure was also commissioned by Urban Vision. This was undertaken independently of this project, and included an external scan of Roofs **A** to **K** (Plate 77). Unfortunately the scan did not include the majority of the western wing, and the density of the scaffold and lack of access resulted in several blank areas within the scan, particularly in the region of Roof **I** (Fig 7). Notwithstanding these deficiencies, the scan data has provided a three dimensional model, which when utilised in conjunction with the detailed photographic record undertaken during this phase of works, will provide a useful tool for future research when access to the external roof timbers is no longer available.



Plate 77: Laser scanning of the external roof structure

4.6 LANDSCAPING OF THE GROUNDS: PROPOSED HERB GARDEN

- 4.6.1 The refurbishment works in this area comprised the installation and replacement of drains along the western side of the hall (Plate 78). The watching brief was maintained during all ground disturbance, and although the excavations were undertaken in a series of short trenches and pits, due to the nature of the archaeology observed, the results are presented by area (Fig 8). The depth of soil removal varied between 0.3m to 1.3m across the proposed garden.



Plate 78: General view of the watching brief within the Proposed Herb Garden

- 4.6.2 **Northern end of the Herb Garden:** an alignment of three sandstone blocks, **10**, was observed approximately 1.5m west of the north-western corner of the hall. These appeared to respect the edge of the former moat, and correspond with a section of retaining wall as shown on the John Ralston painting dated c 1830 (Plate 2).
- 4.6.3 Two stone walls (**29** and **37**) and a stone culvert (**30**) were partially exposed. Wall **29** (Plates 79 and 80) followed a vague east/west alignment, and appeared to be truncated by the northern end of the west wall of the hall. It comprised a single course of unbonded, worn, yellow sandstone blocks, surviving for a length of 0.75m. These were set on red sandy-clay, which was exposed 1m beneath the modern ground level. A large block, measuring 0.8 x 0.6 x 0.4m was removed from loose deposits above the wall, and was likely to have formed part of an upper course. The projected approximate length of the wall measured 3.30m. It would certainly appear that this wall pre-dates the northern annexe to the west wing



Plate 79: Eastern extent of Wall 29



Plate 80: Wall 29

- 4.6.4 A stone culvert (30) comprising a single row of stones was aligned adjacent to, and to the north of wall 29 (Fig 8; Plate 81). It was encountered at a depth of 1m beneath the modern ground level, and sealed beneath modern dumped debris. The space between the culvert and wall 29 was filled with a sticky silty-clay (31), which yielded no artefacts. This was 0.2m thick and overlay the remains of the stone base of the culvert. Due to the limited exposure of 30, it is unclear whether wall 29 was part of the culvert, or alternatively, if the culvert was positioned so as to drain alongside the wall.
- 4.6.5 Wall 37 was exposed for a length of 1m (Fig 8) to the south of wall 29. It survived to two courses in height. The core of the wall comprised roughly-hewn small sandstone blocks, with the outer faces being of large stone blocks (Plate 81). The upper surface of the wall was exposed beneath a 0.5m thick deposit of levelling clay, and was cut into a reddish-brown clay. It is possible this small section of wall is related to the truncated remains of wall 25 (Section 4.6.6, below) seen to the west, although there was no physical evidence to this effect.



Plate 81: Wall 29 and the culvert, 30, with silty-clay between (31)



Plate 82: Wall 37

- 4.6.6 An arrangement of irregular-sized stone blocks and slabs (25; Plate 83) was exposed 5.8m to the west of the hall. It was aligned north/south for a distance of 2.1m, and was 1m wide. The stones are almost certainly the foundations for a wall. The wall overlay a 0.4m thick clay and gravel levelling layer, which in

turn overlay a horizon of red sandy-clay (28). The clay (28) yielded pottery dating no later than the late-seventeenth century. The stone blocks (25) were sealed by a dump of demolition debris (27) containing charred building material, and domestic refuse, including eighteenth-century blackware pottery. This tentatively limits the date of construction of the wall to between the late seventeenth century and eighteenth century, and suggests that the structure it relates to burnt down.



Plate 83: Foundation 25

4.6.7 Drain 4 (Plate 84) measured 4m long and 0.45m wide, and was located along the western side of the hall, slightly to the south of wall 29. It comprised two narrow walls of half-sized brick, beneath small sandstone tiles, and was stone-lined. It was exposed less than 0.35m beneath the modern ground level. The fill contained pottery dating to no earlier than the late eighteenth century. It was not possible to establish a physical relationship between the drain and wall 29.



Plate 84: Drain 4

- 4.6.8 A rectangular arrangement of three brick walls (**9** and **11**) was located in such a position as to suggest that it projected back from the edge of the moat into the garden. It comprised the remains of two long north/south walls (**9**), and one short east/west cross wall (**11**). The shorter wall followed the former course of the moat. Construction was of wire cut brick bonded with lime mortar. An uneven brick surface was present within the north end, and butted all three of the walls. Ralston, *c* 1830, (Plate 2) illustrates a brick structure in this location, which appears to house a culvert-type feature at moat level.
- 4.6.9 Immediately to the west of the rectangular-shaped structure was a mixed brown soil and clay (**3**), exposed beneath the topsoil. This appeared to butt against the western side of **9**, but its relationship with wall **2**, to the west, was unclear. This corresponds with an open area of sloping ground, also shown by Ralston.
- 4.6.10 Wall **2** measured at least 13m long and was aligned north-west/south-east (Fig 8). It was of brick construction and bonded with red speckled sandy-lime mortar. It approximately follows the eastern edge of the west arm of the moat, although, within the extent of the western causeway (OS 1849). It is possible that it relates to the causeway but its function remains unclear. Being of brick construction, this is unlikely to be a retaining wall, and in addition, Arrowsmith (2005) makes reference to stone retaining walls being observed along the line of the moat. A perimeter wall on a similar alignment, but slightly further to the east, and also continuing to both the north and south, is shown on the 1891 OS map. Furthermore, wall **2** more closely corresponds with the alignment of the pavement kerb to the former Rixton Street (OS 1891).

- 4.6.11 Against the east side of the north end of the wall (2) were the partial remains of a sandstone flag surface (1) (Plate 85). The flags appear to post-date surface 3, and could possibly relate to an abutment of the earlier moat causeway. However, the flagstones, which were exposed at quite a shallow depth, also align with the easterly pavement for the former Rixton Street (OS 1891).



Plate 85: Working shot showing sandstone flags adjacent to wall 2

- 4.6.12 Demolition debris, 27 was spread over the northern part of the strip and contained material dating between the eighteenth and nineteenth centuries.
- 4.6.13 **Central area of the Herb Garden:** to the south-west of wall 2, were the remains of a further short section of brick wall (7). It was constructed from coarse and dense brick, and would appear to be within the infilled moat. It lies on a very similar alignment to the west edge of the former Rixton Road (OS 1891).
- 4.6.14 A small area of brickwork (5) measuring 0.8m x 0.5m, and a 1m long by 0.5m wide area of flagstones (6), were observed to the east and south-east of wall 7, approximately 7m apart. The brickwork (5) aligns very closely with the perimeter wall shown on the 1891 OS map. No interpretation is offered for 6, other than it appears to post-date the infilling of the moat, but does not appear on the 1891 map.
- 4.6.15 Running parallel to the central section of the north wing of the hall, and lying 4m out to the west, was an 8m length x 0.5m wide section of brick wall (26). The bricks appeared to be wire-cut, and were bonded with dark grey mortar, suggestive of a nineteenth century date. It survived to a height of four courses, with a step of 0.5m to each side. The upper course, exposed at 0.10m below modern ground level, was of a yellowish coloured brick. This corresponds with a wall identified in previous excavations (UMAU 2007), and described as belonging to a kitchen burnt down in the nineteenth century. However, wall 26, or at least a wall sharing the same alignment, is present on the 1922 OS

map, and again on the 1950 edition, and appears to be either an extension or yard.

- 4.6.16 On a north-west/south-east alignment, and positioned to the east of wall **26**, a further brickwall (**24**), was seen to extend into the footings of the hall, immediately adjacent to the location of the bread ovens within the kitchen (Plate 86). It measured 3.1m in length by 1.3m in width, and was exposed to a height of three courses (0.40m), with a single step foundation. The wall was charred along its northern face and its outer skin was lined with fire brick. Within the core of the wall was a 0.2m wide ash-pit (Plate 87) sealed beneath an iron plate. This is almost certainly part of the construction and flue for the Jennison bread ovens present in the west wall of the kitchen (*Section 4.2.14, above*).
- 4.6.17 Brickwork, **33**, was aligned north-east/south-west and measured 1m long by 0.5m wide, and comprised two courses of half bricks laid side on. The upper surface was heavily sooted with traces of burnt lime mortar. Its function remains unclear. To the south of this brickwork a brick drain (**22**) was exposed, and this survived to a maximum length of 2.5m. Wall **8** located further to the south was two bricks wide and aligned east/west. The bricks were machine-pressed and bonded with dark grey cement mortar. The relationship of these features to the kitchen extension is unclear.



Plate 86: Upper courses of Wall 24, adjacent to the kitchen



Plate 87: Ash pit within the base of Wall 24

- 4.6.18 A brick footing (**12/32**) three courses high was exposed beneath the southern bay of the west wing. The fabric components comprised common brick bonded with a hard grey ash and cement mix mortar. It was aligned north-west/south-east and continued south of the bay for a distance of 3m, and was truncated by a ceramic drain pipe at its southern end. This corresponds with the line of an extension to the bay window as shown on the 1891 OS map.
- 4.6.19 ***Southern Area of the Herb Garden:*** this largely comprised the remains of a sequence of drains (**13**, **18** and **21**) and a possible coal store (**19**, **20** and **23**), which post-dated the drains. The drains were cut into a series of layers (**15**, **16** and **17**).
- 4.6.20 A layer of pale brown sandy-clay (**15**) contained two pieces of medieval pottery. It was present in patches across much of southern part of the watching brief area, and is likely to represent a buried soil contemporary with the earlier phases of the hall. This was sealed by a spread of mixed clay and sand (**16**)

containing pottery with a broad date range between the sixteenth and nineteenth centuries. It is possible it may represent a levelling layer into which the subsequent sequence of drains. A spread of charcoal (**17**) was located directly north of drain **13**. This maybe the upper fill of a pit, although the limited nature of the watching brief did not allow further investigation.

4.6.21 The best preserved of the drains were **13** and **21**. Drain **21** was the most southerly and of brick construction. It survived for a distance of 2m in length by 0.45m wide. It was capped by thin sandstone tiles. The stone-lined drain, **13**, to the north (Plate 88) comprised two parallel, and slightly curving single course (0.3m high) masonry walls. It survived for a length of 1m by 0.5m in width. It was capped with thin (<0.5cm) sandstone tiles, and filled with dark brown silty-clay (**14**) containing pottery dating to no later than the early nineteenth century. It would seem there was a secondary phase to the drain as represented by the addition of a stone and brick wall (**18**) located along the southern wall of the drain.

4.6.22 The coal store comprised brick walls (**19** and **20**) and a coal-covered brick surface (**23**). The walls were unremarkable and a single skin in width.



Plate 88: Section through Drain 13



Plate 89: North-facing section showing pit 34, and layers 35, 36 and 27

- 4.6.23 **Herb Garden Finds:** in total, 99 artefacts were collected from the site. The material was collected from stratified and unstratified deposits, such as buried soils, fills of drains and wall footings, demolition layers, and cleaning layers. The assemblage was dominated by animal bone (37 fragments) and ceramic vessels (31 fragments), with lesser amounts of industrial residues (15 fragments), clay tobacco pipe (5 fragments), glass (4 fragments, including an almost complete bottle), copper alloy (4 fragments), and ceramic building material (3 fragments). Most can be dated to the later nineteenth century, but the pottery from the site clearly indicates earlier activity, probably from the later medieval period onwards.
- 4.6.24 **Ceramic:** the pottery derived from nine contexts, such as the area across the former kitchen (39), buried soils layers (15 and 28), and the fills of drains (4 and 13), a possible pit fill (17), the fill of wall trench (12) and unstratified deposits (100). It was generally in good condition with occasional indication of water exposure.
- 4.6.25 **Medieval:** the earliest pottery recovered from the site comprised one sherd in a very sandy green-glazed fabric, and a small sherd in a fine white fabric with a dark green glaze. It is likely that the former dates to the fourteenth/fifteenth century, whilst the latter could be later, perhaps in the 'Tudor green' tradition, continuing into the sixteenth century (Haslam 1978, 22). Both were recovered from buried soil 15. In addition, there were nine joining sherds from a small yellow-glazed vessel recovered from unstratified layer 100. This seems likely to be a drinking jug in the Midlands Yellow tradition, produced from the late fifteenth to the seventeenth centuries (Watkins 1987). It resembles a

seventeenth-century example from Bewsey Old Hall (Lewis *et al* 2011, 133, Fig 65.21) and should perhaps be regarded as of post-medieval date.

- 4.6.26 *Early post-medieval*: in total, there were five sherds from a single blackware beaker in the Cistercian ware tradition, and a single body sherd from a second vessel in a similar, but less hard-fired bright orange fabric. These came from the fill (**14**) of stone culvert **13**, which also produced much later (nineteenth century) material suggesting that drain was in use for a significant length of time. Blackwares such as these are known in significant numbers from post-dissolution deposits at Norton Priory (Howard-Davis 2008), and from post-medieval deposits at Bewsey Old Hall (Lewis *et al* 2011), both in Cheshire, and were probably produced at seventeenth century kiln sites in South Lancashire, for instance Prescott and Rainford (Davey 1991).
- 4.6.27 *Later Post-medieval*: two blackware body sherds recovered from pit fill **17** appear to be in a relatively early fabric, probably no later than the eighteenth century, and a third blackware body sherd from culvert **13** (fill **14**) could be of a similar date. The remainder of the assemblage included various kitchen and tablewares, such as transfer-printed refined whitewares from wall trench fill **12**, and a small amount of late stoneware, including sanitary wares. Although found unstratified, two whiteware plates, one with hand-painted red bands close to the rim, the other with printed blue bands, bore a transfer-printed central roundel bearing the legend Ordsall Hall, Salford, and presumably reflect dumped kitchen wares.
- 4.6.28 The pottery assemblage is not large, but hints at medieval and later activity in the vicinity, emphasising that of the early post-medieval period, when the hall was clearly drawing on both local and more far-flung resources to supply its pottery needs.
- 4.6.29 *Other finds*: there is little of interest amongst the other finds. An eighteenth-century clay tobacco pipe stem came from demolition deposit **27**, and is a Chester product (pers comm D Higgins) Except for a small and degraded fragment from an eighteenth-century dark green wine bottle, glass from the site is unlikely to be earlier than the last decades of the nineteenth century, and could well be no earlier than the early twentieth. The small amount of copper alloy is probably all of twentieth-century date and includes a coin of George VI, found unstratified.
- 4.6.30 *Animal Bone*: of the 37 fragments, 34 derived from a buried soil (**28**) which perhaps accumulated in the seventeenth or eighteenth century. The remaining fragments were recovered from a drain (**4**). The bone consisted of sheep, fowl and bovine, with none showing any indication of butchery marks.

4.7 LANDSCAPING OF THE GROUNDS: PROPOSED FORMAL GARDEN

- 4.7.1 This element of the landscaping area was concentrated at the rear of the hall, at the north-western end, and across the site of the former east wing of the hall and the subsequently demolished Church of St Cyprian (Fig 9).
- 4.7.2 A decision was undertaken in agreement with the client to machine excavate eight trial trenches prior to landscaping taking place in the area of the former church former church (Plate 92). The trenches varied in size and depth and were intended to characterise any archaeological features or deposits encountered. They were aligned north-east/south-west, and measured between 4 to 5m long, 1m wide, and averaged in depth no deeper than 700mm, although Trench 4 measured 500mm (Fig 9).



Plate 90: General view of the Proposed Formal Garden watching brief

- 4.7.3 **Results**; all of the trenches were predominantly filled with brick rubble sealed beneath the topsoil and turf. In addition, there was occasional evidence of modern refuse, such as concrete, polythene and wire, relict of a former landscaping programme. This was presumably deposited after previous archaeological work undertaken by UMAU. Of the eight trenches only four (Trenches 1, 2, 3 and 4) contained archaeological remains, such as brick foundation walls and a paved area. All bricks measured an average of 8 x 4¼ x 3". The results of Trenches 1 to 4 are discussed below.
- 4.7.4 **Trench 1**: a brick wall was located 0.4m from the west end of the trench. It measured 0.35m in width by 0.8m in length.
- 4.7.5 **Trench 2**: a further brick wall was observed in this trench. It measured 0.54m in length to the limit of excavation, and shared the same alignment as that in Trench 1 (Fig 9).

- 4.7.6 **Trench 3:** contained a brick wall with a row of paving stones present along its eastern edge (Plate 93). The wall measured 0.63m wide and was located 1.2m from the western limit of excavation.



Plate 91: Wall within Trench 3 of the Proposed Formal Garden

- 4.7.7 **Trench 4:** this contained an extremely fragile and degraded brick wall measuring 0.36m in length, and was located along the western side of the trench.
- 4.7.8 The limited nature of the archaeology observed is such that it is not possible offer an informed interpretation of either function or date of the lengths of brick wall present.

5. EXCAVATION IN THE GREAT HALL

5.1 INTRODUCTION

5.1.1 Following the removal of the floorboards within the Great Hall (G4), the deposits visible below the joists were cleaned and recorded (Plates 3, 91-92). Several features of archaeological significance relating to the development of Ordsall Hall were revealed (Fig 10). These included evidence of a hearth, a brick surface, and a brick channel. Most of these features were truncated by twentieth-century services and were overlain by sleeper walls that ran north-east/south-west across the hall.

5.2 RESULTS

5.2.1 The earliest encountered material comprised naturally deposited mid-orange-brown sand. A sub-ovoid patch of the sand that was situated within the centre of the eastern, or 'high', end of the hall was seen to have been burnt and to have become discoloured to a pinkish-red hue (Fig 10; Plate 94). This burnt patch measured 2.6m long and 2m wide, and was situated beneath a former louvre in the apex of the roof, which has now been boarded over. The discolouration is, therefore, clearly evidence of the former presence of a hearth in this area, and the intense heat that this would have produced. The central part of the heat-affected patch had been truncated by modern services and it is likely that horizontal truncation had removed the former upper surface of the deposit and any associated deposits, such as charcoal and ash, or structural remains.



Plate 92: View of the Great Hall looking north-east



Plate 93: View of the Great Hall looking south-west



Plate 94: Area of burnt sand (101) resulting from the former presence of a hearth

5.2.2 A dumped deposit of building rubble comprising fragments of ceramic bricks and mortar, in addition to sherds of late-nineteenth-century pottery (*111*), was located at the south-western side of the hall (Plate 95). This deposit was 0.7m deep and extended over a sub-rectangular area measuring 2.42m wide and 3.22m long. The northern extent of the spread was defined by a single row of mortared bricks (*110*) that was traced for 2.42m. Only the upper surfaces of these bricks, which was level with the natural sand (*100*), were visible and it is not known whether lower courses were present. The relationship between the row of bricks (*110*) and the dump of rubble (*111*) suggests that they were possibly contemporary. A linear cut (*106*) measuring 0.44m wide and 2.16m long was filled by a single course of bricks (*109*). These had the appearance of being the remaining portion of a linear feature, such as a wall foundation, constructed to a width of three bricks, or 0.35m. This brick feature (*109*) shared the same alignment as the brick row (*110*), and it is possible that they represent discontinuous portions of a single structural element that was truncated by the installation of later services.



*Plate 95: Exploratory sondage through a dumped deposit of building rubble (*111*) facing south-east. The overlying brick channel (*108*) is visible at the right of the image*

- 5.2.3 A linear foundation trench (**102=107**) with vertical sides measuring 1.2m wide at the western end and 0.65m wide at the eastern end, was aligned south-east/north-west across the entire exposed width of the hall. The trench cut natural sand (**100**) to the south and the deposit of rubble infill (**111**) to the north. An apparent brick channel (**108=104**) had been constructed within the trench comprising parallel double-thickness walls sitting two courses higher than a brick base that lay between them.



Plate 96: Brick channel (108) facing south-west

- 5.2.4 The overall width of this structure varied between 0.88m at the western end (Plate 96), and 0.65m at the eastern end (Plate 83). The western end appeared to have been further widened by a stretch of wall (**103**) that ran parallel to the southern side of the structure (**108=104**). Wall **103** was a single brick wide and might have formed a second channel. It extended beneath a stone pad that supported the south-western spere post, and it is likely that this was simply a consequence of the insertion of the wall, as it extended for a further 1.7m beyond the stone pad. The foundation trench and the brick channel were truncated in the centre and at the eastern end, by the sleeper walls that supported the most recent floor joists above, and was overlain by a sleeper wall at the western end. As the channel overlay the deposit of building rubble (**111**) that contained pottery of late nineteenth-century date, this provides a relatively tight date range for the construction of the channel, lying between the late-nineteenth and early-twentieth centuries.



Plate 97: Brick channel (104) facing south-west

- 5.2.5 A crudely-formed brick surface (105) lay at the northern end of the hall (Plate 98). This was mainly constructed from reused broken bricks that had been laid on edge and did not include the use of bonding material. The surface measured 1.64m long and 0.7m wide and appeared to have abutted two sleeper walls that supported joists for the latest wooden floor and were of twentieth century date. This suggests that the surface was of modern construction and was used temporarily, perhaps in association with a phase of repair or modification to the hall during the twentieth century.



Plate 98: Brick surface (105) facing north-east

6. DISCUSSION

6.1 INTRODUCTION

- 6.1.1 The refurbishment project has enabled the long term conservation of the Hall. The results of the archaeological programme of work serve to enhance the existing site archive, and further the understanding of phasing and development of the Hall and its grounds
- 6.1.2 The scope of the work, as presented in this report, was targeted on specific areas of the site and, as such, was intended to add to the existing archaeological record, rather than produce a definitive document for the history, development, and curation of Ordsall Hall. The discussion has been split into two sections: the first discussing the fabric of the hall structure itself; and the second the external landscaped areas. This is followed by a short conclusion and outline recommendations for future work.

6.2 THE STRUCTURAL WATCHING BRIEF

- 6.2.1 The refurbishment interventions undertaken throughout the Hall afforded an excellent opportunity to examine its construction and development in greater detail than was possible during the building survey undertaken in 2009 (UMAU 2009).
- 6.2.2 ***The Great Hall:*** structural alterations within the Great Hall included alteration to the floor, and the insertion of a doorway in the south wall. Previous work within the Great Hall, comprising a trench excavated on behalf of the County Archaeologist by building contractors in 1994, revealed a slight lens of burning 0.25m below the ground level, and it was also recorded that natural sand was encountered at a relatively shallow depth (UMAU 1995; UMAU 2007). This excavation was apparently undertaken immediately below the louver, and was instigated with the intention of investigating whether any remains of a hearth were present. The current excavation clearly revealed the extent of a hearth beneath the louver, which was itself blocked subsequently.
- 6.2.3 Due to a lack of dating evidence it was not possible to ascribe a date of origin to the hearth, however, the alignment of hearth and louver would certainly suggest that the hearth was still in use when the current hall was constructed c 1513. The brick channel observed beneath the padstone for the spere post had very obviously undercut the padstone, and is not suggestive of an earlier phase of work to the hall.
- 6.2.4 The insertion of a doorway into the south elevation of the Great Hall afforded a detailed examination of the construction of the wall, the fabric and bonding materials of which, strongly suggest that it dates from the major remodeling of the building at the end of the nineteenth-century. This clearly represents the replacement of the earlier timber framing of the hall, although it remains unclear whether the timber components had been replaced at an earlier date. No evidence for an earlier structure was observed at wall-footing level, which corresponded to a similar lack of evidence for earlier structural features below

the floor of the hall itself. This suggests that any rebuilding used existing foundations. The excavations undertaken in 1990-1 recorded that the moat had been cut into natural sand (*ibid*).

- 6.2.5 **The West Wing:** the stripping of the walls of the west wing, and associated structural alterations afforded a detailed re-recording of the ground floor, in particular. The watching brief recorded details which were previously obscured by furniture and wall finishes.
- 6.2.6 The present west wing comprises a brick-built structure, of hand-made, mould-thrown brick, bonded in pale lime mortar. It was constructed in 1639 (Farrer & Brownbill 1911, 213), and it has been suggested that it replaced an earlier structure (*ibid*). Some evidence for this was observed during the building survey of 2009, when a redundant post, which appeared to stratigraphically predate the Great Hall of *c* 1513, was observed at first floor level (UMAU 2009). The watching brief has provided further evidence to suggest that the wing predates its brick-built form. The three extant trusses within the roof of the west wing (the Roof Space), although damaged and remodelled, retain evidence of timber jointing at their junctions with the wall plates that are redundant in their current usage. These comprise mortices and peg-holes indicative of normal assembly of wall-frames and trusses. This suggests that either the tie-beams and wall plates were re-used from an earlier structure, or more likely, that the west wing was originally a timber-framed structure, similar to the eastern and central ranges, and was refaced with brick in the seventeenth century.
- 6.2.7 The west wing was certainly a service range, with the kitchen housing a large inglenook fireplace, at the south end. A blocked aperture in the external wall of the inglenook probably represents the position of an oven, which was replaced by two cast-iron ovens to the south of the fireplace, in the late nineteenth century. A thin wall was inserted within the back of the fireplace, probably contemporary with the insertion of the new ovens, as it blocks the original oven. The wall created a narrow passage, and although its function remains uncertain, the suggestion of a doorway at either end, leads to the conclusion that it provided access from the moat to the courtyard, the hall having been divided into two properties in the eighteenth-century.
- 6.2.8 Blocked apertures within the Radclyffe room to the north, demonstrated subtle alterations to the access arrangements between this and the kitchen, and also to the exterior of the property. The construction of an entrance porch and stair tower appears to be a relatively early addition to the west wing, quite probably replacing a doorway in the smaller tower on the west wall of the kitchen. This may again reflect a change of status, with a rear service stair being replaced by a more ornate entrance porch and stair tower, added to the divided property. The extension to the northern end of the wing, the annexe, was probably a contemporary build with the stair tower, and provided additional accommodation. Blocked apertures in its west wall would have communicated with smaller buildings to the west, evidence for which was observed within the herb garden watching brief. The subsequent reduction in the height of the annexe also included a complete rebuilding of the north wall, suggesting that it may have been undertaken at the same time that the moat was infilled.

- 6.2.9 **The Roof:** the extant roof of Ordsall Hall represents a complex multi-phase structure. The watching brief determined that it comprised 14 distinct elements, almost all of which had been remodelled or replaced following their original construction. Whilst the removal of slates, felt and batons, and the erection of a substantial scaffold provided far better access than had previously been possible to many parts of the roof, there were very few places where the roof could be physically accessed. Thus the survey, whilst detailed, is not exhaustive, and many of the joints between timbers could not be examined in close-up detail.
- 6.2.10 The earliest part of the roof (Roof **C**) had been previously recorded, and identified as such, as early as 1972 (UMAU 1995), and comprised two extant crown-post trusses above the Great Chamber (**F3A**). This roof almost certainly originally extended the full length of the original east wing.
- 6.2.11 Whilst the roof of the Great Hall (Roof **D**), has been dated to the early sixteenth-century (UMAU 1995), that above the west wing (Roof **J**) is thought to retain seventeenth-century elements (*Section 6.2.6*), however, the carpentry of the trusses suggests a significantly earlier date. Stylistically, the trusses are more similar to those of the Great Hall, than the Great Chamber, having wind-braced side purlins, and timber panelling for decoration within the truss. However, the construction technique differs in a number of ways: most significantly, rather than rising from the tie-beam to the ridge purlin, the posts of the trusses are interrupted by the collar, and so merely form studs for the panelling, as opposed to a structural role. A similar arrangement is seen in Roof **C**, above the Great Chamber. Furthermore, the ridge joint to the truss is untidy for a building of such high status, and within a roof that was probably originally open to first floor level, this being suggested by the apparent lack of original access to the second-floor, a doorway having been cut into the tie-beam of the central truss during the construction of the later stair tower. The common rafters appear to retain elements of pegged mortice-and-tenon jointing at the apex of the roof, suggesting that the ridge purlin is not original, again typical of an earlier style of construction. A very similar roof, comprising king struts to the collar and principal rafters, was observed in a late-thirteenth century roof at Donington-le-Heath, Leicestershire (Woods 1994, 302). Whilst it is not suggested that Roof **J** is of similar date, this demonstrates that this style of roof was certainly in existence at the time of the construction of the earliest phase of Ordsall Hall. It is, therefore, quite possible that elements of the roof of the west wing, may predate the roof of the Great Hall.
- 6.2.12 Both Roofs **D** and **J**, comprising large-scantling timbers with heavy purlins and king-posts, or close approximations thereof, are of a typically more northern building tradition (*ibid*). It is, therefore, of some note that the medieval phases of the hall contain roofs of very contrasting origins, with the more French-styled Roof **C**, clearly being in a very different tradition to the heavier, more Scandinavian styles of Roofs **D** and **J**.
- 6.2.13 The roof of the Great Hall continued beyond the dais of the hall, where a further truss was almost certainly originally open to at least first-floor level. It is at present unclear whether this suggests that the dais was inserted following

the original construction of the Great Hall, or that the solar was simply open to the rafters at this time.

- 6.2.14 The small roofs associated with the Great Hall and west wing (Roofs **E**, **K**, and **L**), are difficult to phase, given their size and general simplicity of construction. However, they all appear to contain elements original to the construction of the associated structures below, suggesting that they represent some of the earliest elements of the remaining roofs. The construction of Roof **F** represented the next large-scale roof alteration. Its king-post trusses, square-section purlins and jetties, suggest a seventeenth-century date, although redundant carpentry within some of the timbers suggests possible re-use and certain remodelling and renewal.
- 6.2.15 The remaining structural elements of the roof are of eighteenth to twentieth-century in date, and again tend to incorporate elements, particularly rafters and side-purlins, from earlier phases or structures. Roofs **A** and **B** were heavily remodelled at the turn of the twentieth-century, during the large-scale remodelling of the hall, as were Roofs **G** and **H** above the southern end of the west wing.
- 6.2.16 **Conclusions:** for the most part the results of the roof investigation have served to confirm the dating of the various roof structures, as relating to the construction of the related elements of the hall below. In addition, it has enabled a phasing of the timbers to be compiled. The roof structure is known to retain fabric from the fourteenth-century (Roof **C**; Great Chamber) through to the modern period. Elements of the Roof **J** appear to be pre-date the roof to the Great Hall. The roof over the Great Hall (Roof **D** and **E**) was constructed in the early sixteenth-century, and further elements of the timbers within the main roof to the west wing (Roof **J**) date to the early seventeenth-century. Further seventeenth-century roofs timbers are retained in Roofs **A**, **F**, **G**, **H** and **K**. However, all of these roofs have been heavily re-modelled. Roof **F** displayed timbers with signs of re-use. Post-dating these earlier timbers are Roofs **L** and **B**, above the stair tower to the west wing and the extension to the Great Chamber respectively. These both exhibit late eighteenth century timbers. The timbers in the roof (**L**) above the southernmost annex to the west wing are nineteenth century but show signs of re-use, with those above the northern annex (**M**) being modern.
- 6.2.17 In addition to proving the existence of seventeenth roof timbers above the west wing, the investigation of the roof has presented firm evidence for its earlier construction. Both Arrowsmith (2005) and the VCH (Farrer and Brownbill 1911) allude to the presence of an earlier west wing, pre-dating the seventeenth century construction. Evidence for this has been quite scant, and so the likelihood of several elements of the roof above the west wing almost certainly being sixteenth century or possibly even earlier is a very significant finding.

6.3 THE EXTERNAL WATCHING BRIEFS

6.3.1 Whilst very limited in its scope, significant archaeological remains were revealed during this element of the watching brief, and, particularly, within the area of the Proposed Herb Garden. Several of the features appear to be those identified during previous excavations within this area (UMAU 2007).

6.3.2 Within the Proposed Formal Garden, only a few structural remains were identified, 11 of which would appear to be of late-nineteenth century date, and thus almost certainly pertaining to St Cyprian's church. The walls, drains and pits revealed to the west of the hall, within the Proposed Herb Garden, clearly demonstrate widespread, multi-phase activity within this part of the site. Four broad phases were identified.

- **Phase 1 (medieval):** this phase comprises buried clay soils (**15** and **35**), stone walls (**25**, **29**, and **37**) and a culvert **30**. Although all of the walls are of stone construction, and are suggestive of a small building, it was not possible to establish a firm relationship between them. Wall **29** appears to extend beneath the footprint of the annexe, as does the adjacent culvert. This certainly suggests the presence of a building pre-dating the late seventeenth-century. It is unlikely that the narrow wall footings would have been able to support anything other than a single-storey structure, and probably of timber frame construction.
- **Phase 2 (seventeenth-late eighteenth century):** clay layers **16** and **28** (containing late seventeenth century pottery), drain **14**, and sandy-clay **36**. These features/deposits appear broadly contemporary with the construction of the brick-built west wing.
- **Phase 3 (late eighteenth-mid nineteenth century):** this phase is represented by the remains of a number of structures, a surface, and demolition material. The demolition material, **27**, contains pottery dating between the eighteenth and nineteenth-century). The surface, **3**, clearly corresponds to a similar feature illustrated by Ralston (c 1830). Walls **9**, **11** and **10** also appear on Ralston's painting, and are certainly later than the annexe to the west wing.

The short sections of wall (**5** and **6**) are difficult to phase, but certainly post-date the infilling of the moat. The fabric of the coal store (**20** and **23**) is certainly of this phase. Walls **2** and **7** are included in this phase, as is stone surface **1**. The exact function of these features remains uncertain, and it is tentatively suggested that they relate to the former Rixton Street, although wall **2**, does follow the alignment of a wall shown by Ralston, and so could represent the remains of a perimeter wall.

- **Phase 4 (mid nineteenth-twentieth century):** the majority of the features from this phase relate to an extension to the kitchen: these include a number of walls (**8**, **24** and **26**), a flue (**33**) and drains (**21** and **22**). The kitchen extension housed two cast iron bread ovens, as seen in the kitchen wall internally. Wall **24** formed the foundation for the ovens, and contained an ash pit within its core. In addition to the kitchen extension, walls **12** and **32**

provide evidence for the remodelling of the bay at the south end of the kitchen.

6.4 THE EXCAVATION IN THE GREAT HALL

- 6.4.1 The excavation of a trench within the Great Hall in 1994 revealed a slight lens of burning 0.25m below the modern floor level, and recorded natural sand at a relatively shallow depth (UMAU 2005; UMAU 2007). The recent excavation of the Great Hall confirmed the presence of both of these findings.
- 6.4.2 The presence of the louvre within the roof of the Great Hall above burnt sand **101**, suggests that the hearth was served by the louvre, and almost certainly dates to at least *c* 1513. However, it was not possible to determine a date of establishment for the hearth, which could have been associated with an earlier phase of the Great Hall.
- 6.4.3 A trench (trench g) excavated by UMAU in 1990-1 to the south of the Great Hall did not encounter any structural remains that might have represented the continuation of the brick channel (**104=108**). If this structure had been intended to act as a drainage channel from the courtyard into the outer grounds then such an extension might have been expected. However, given that the structure appeared to post-date a rubble deposit of probable late-nineteenth-century date, it is likely that the channel post-dated the infilling of the moat and, therefore, would probably not have sought to drain water into the former moat. It is possible that the channel drained water northwards into the courtyard area to connect with systems in that area for dispersal of ground water.

6.5 RECOMMENDATIONS

- 6.5.1 The watching brief, roof survey and excavation have enhanced the understanding of the development and phasing of the Hall. In addition, attempts at interpretation have served to highlight the need for a more thorough investigation of the archaeological archive.
- 6.5.2 Given the growing body of evidence for a timber-framed west wing, predating the present brick structure of the mid-seventeenth century, a re-appraisal of the extensive archive is recommended. Not only would this be an important academic objective, but the results could provide an ideal basis for the production of a much-needed popular publication on the monument.

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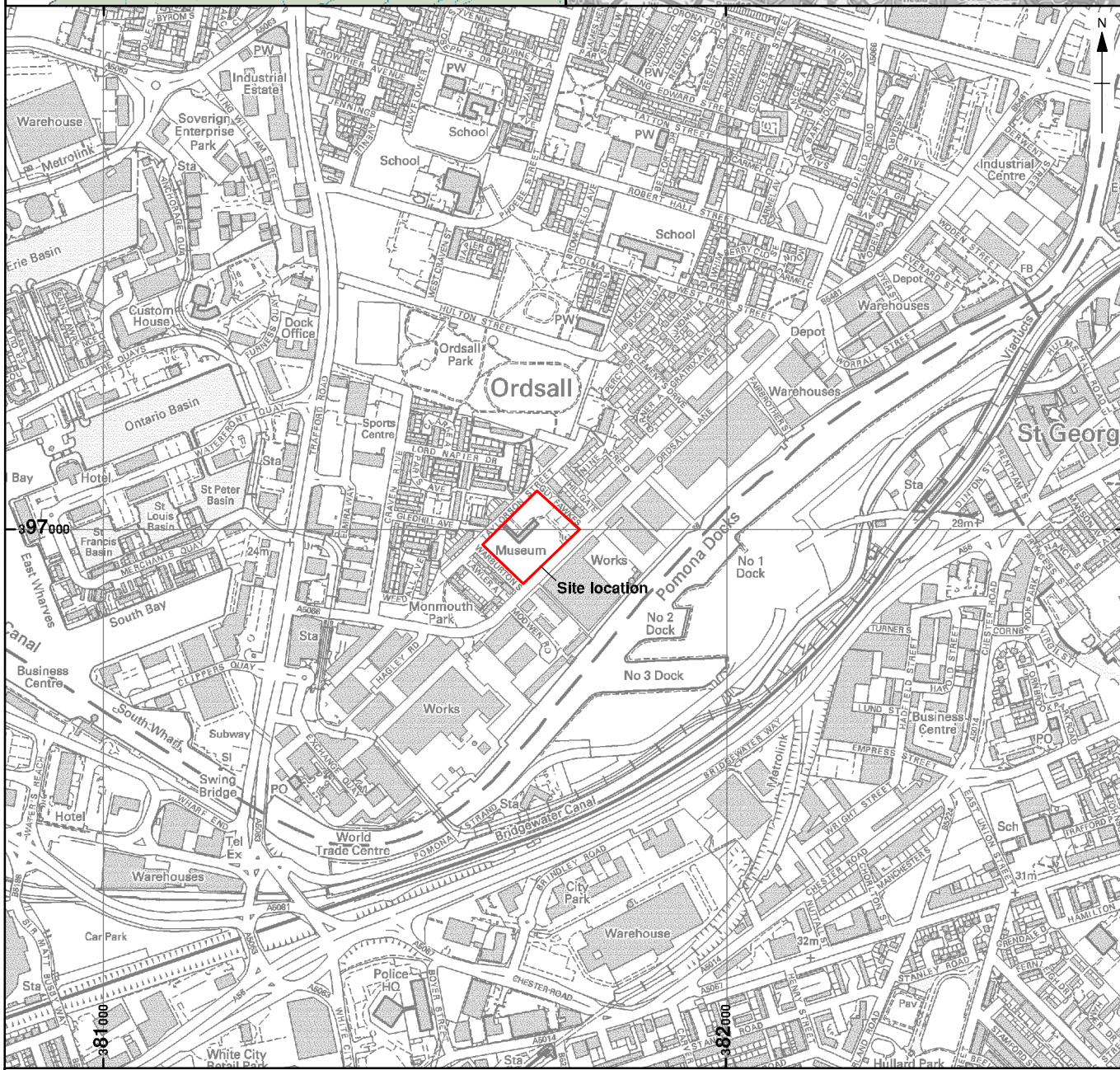
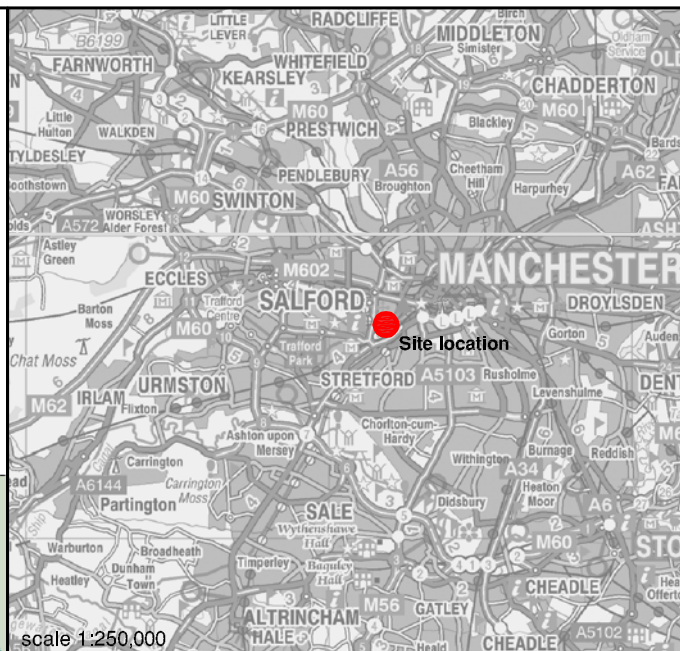
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Figure 1: Site location

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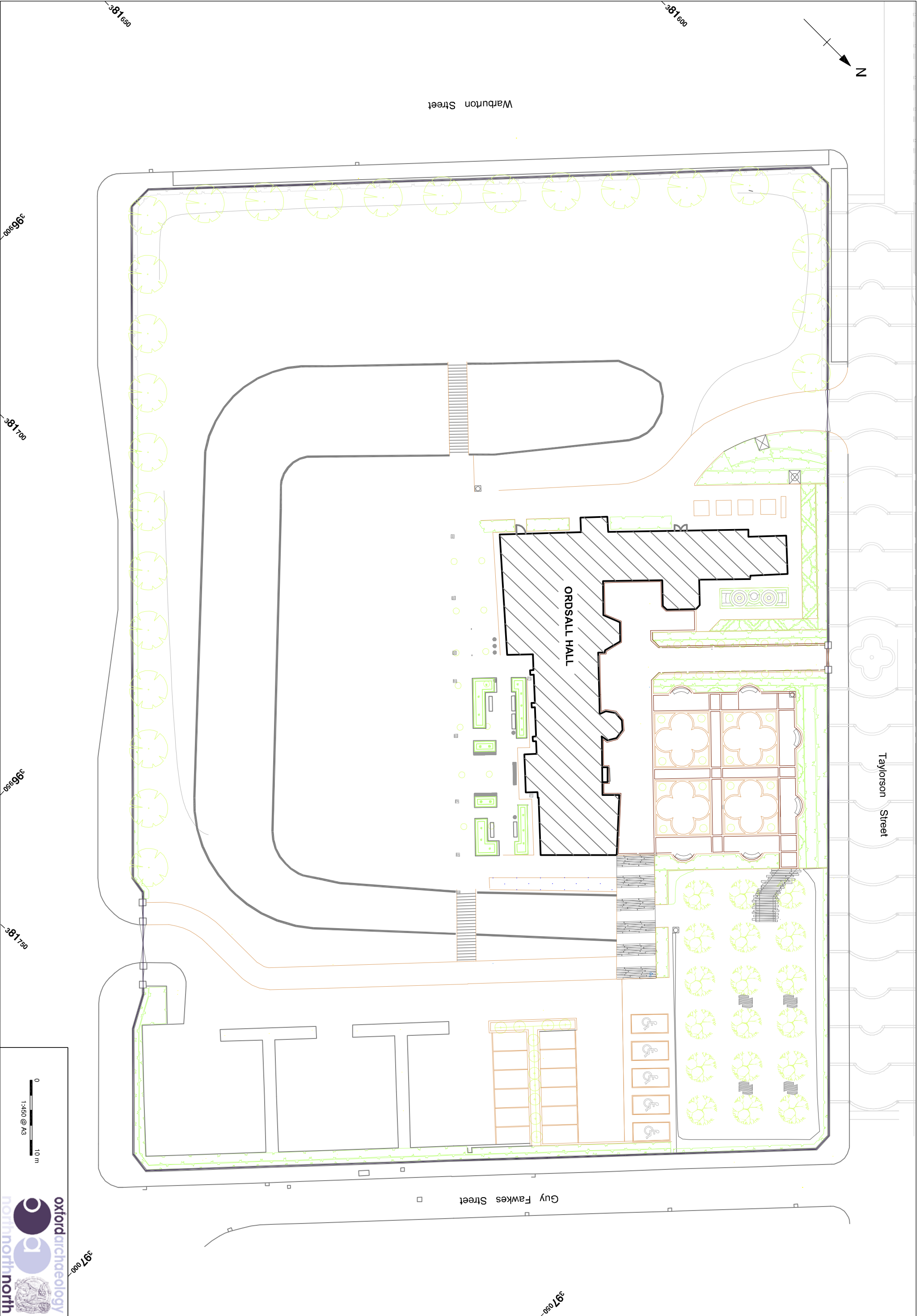


Figure 2: Plan of the Hall and grounds following refurbishment works

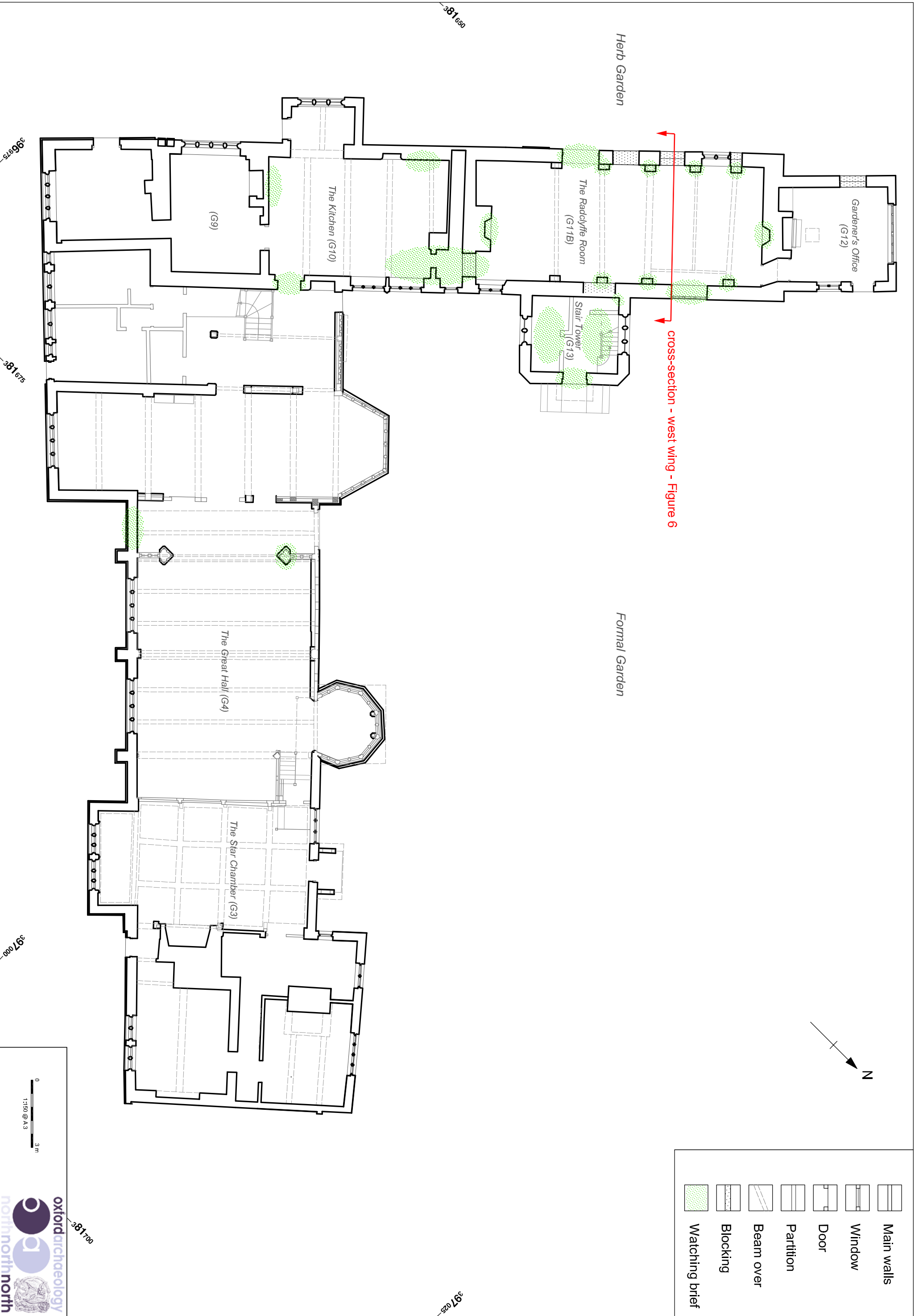


Figure 3: Ground floor plan of the Hall, showing rooms and specific areas subject to the watching brief

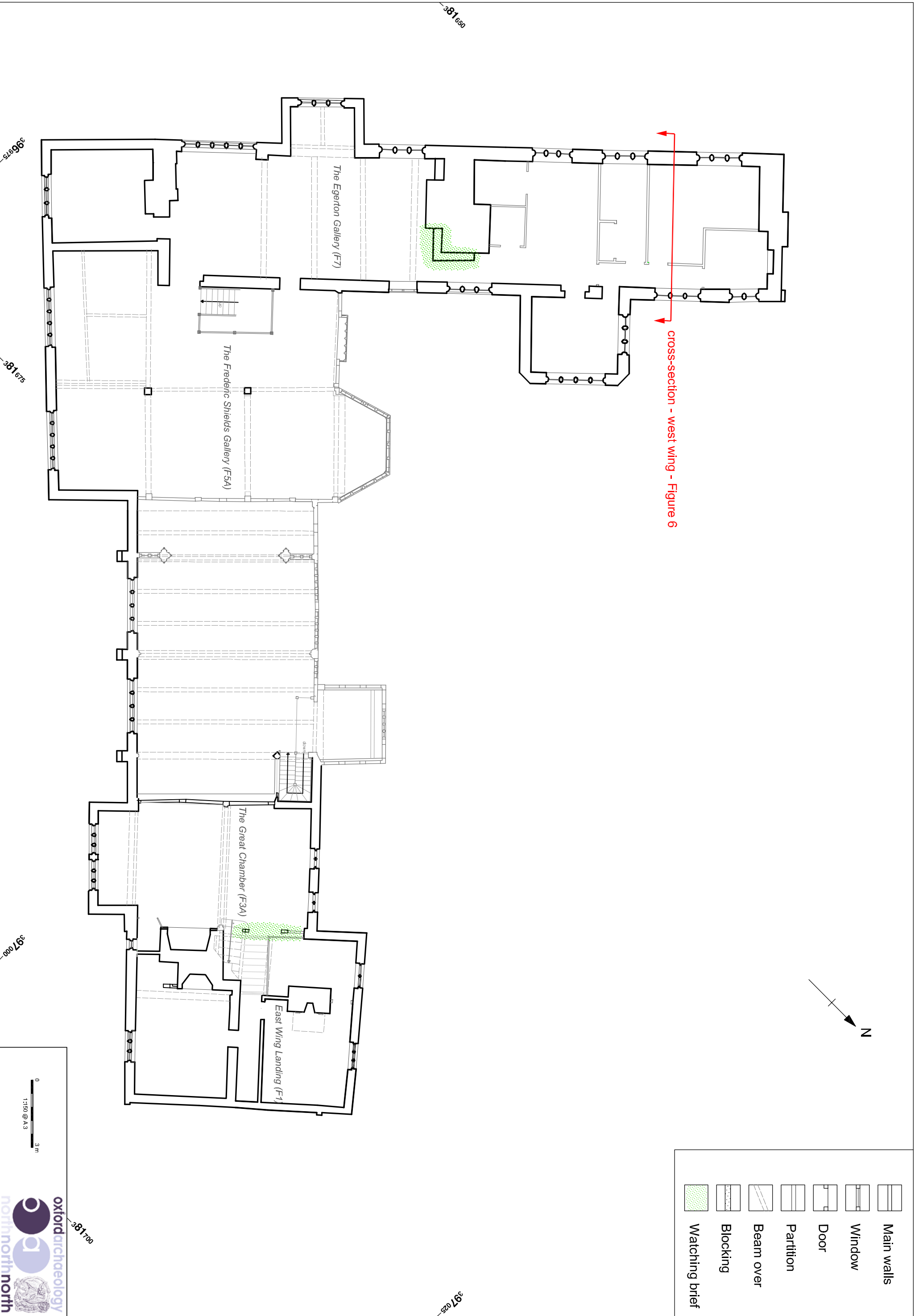


Figure 4: The Roof Space and roof plan of the Hall

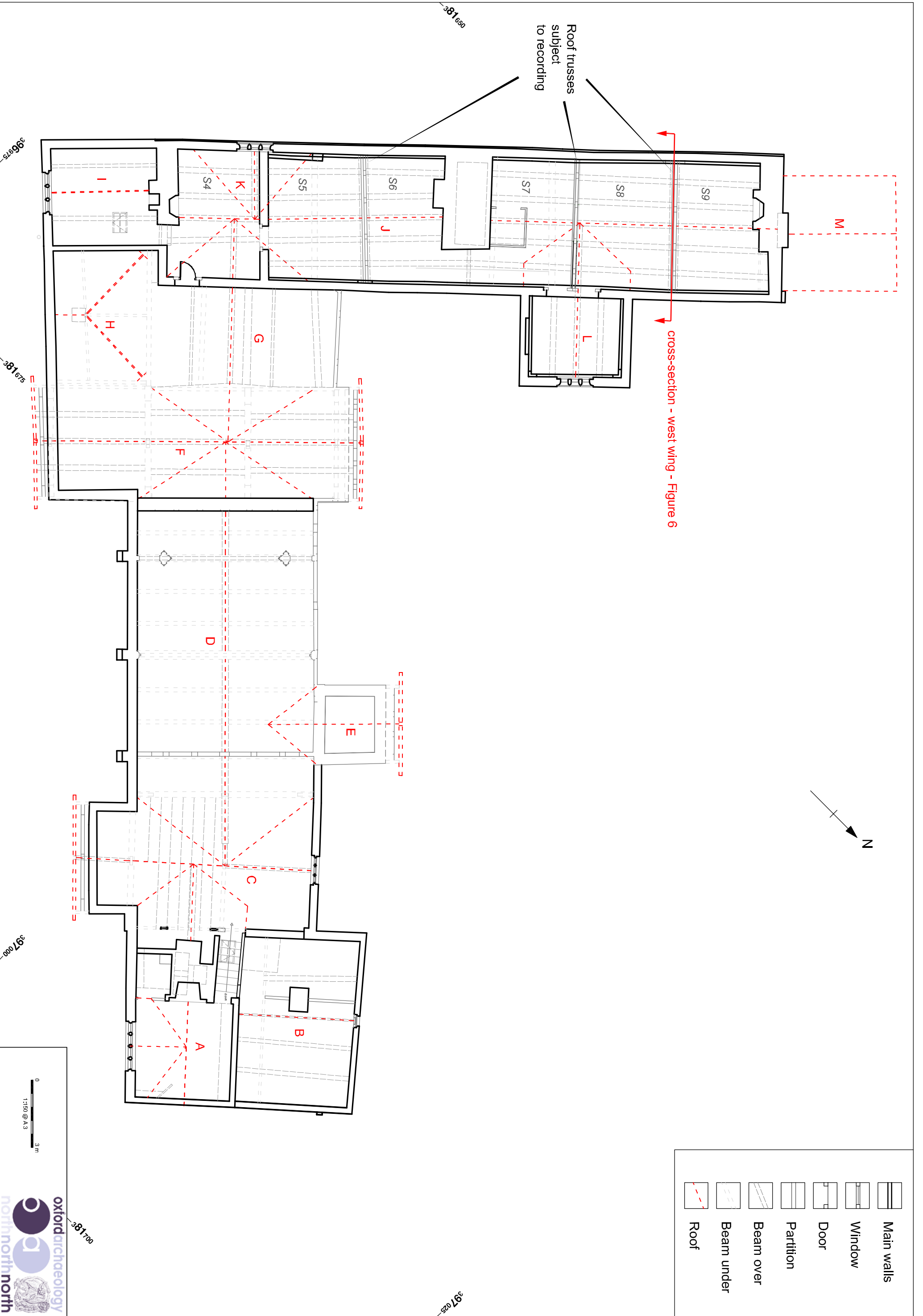
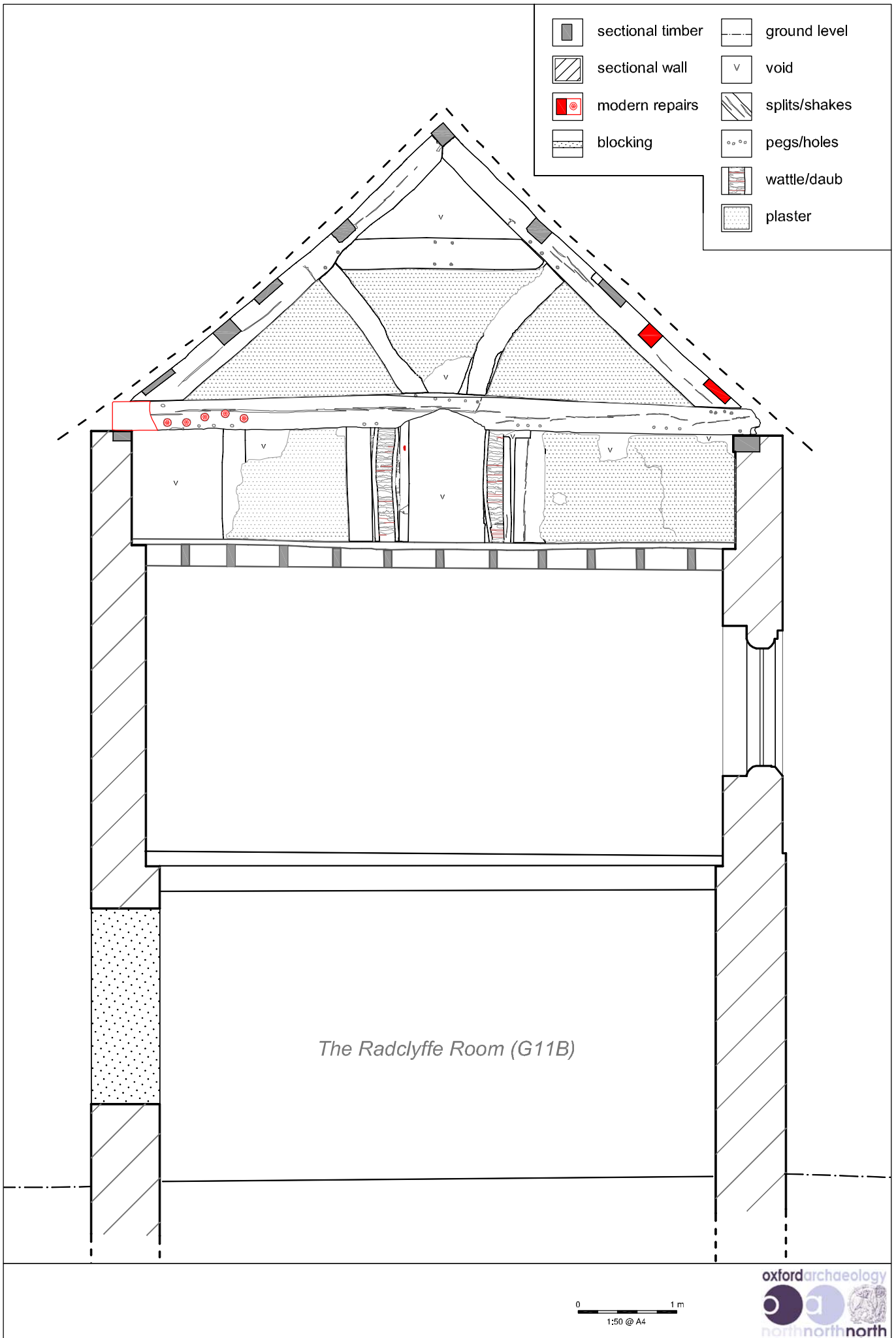


Figure 5: Second floor and roof plan of Ordsall Hall



AP*L10166*MAT* June 2011

Figure 6: Cross-section through the west wing of the Hall

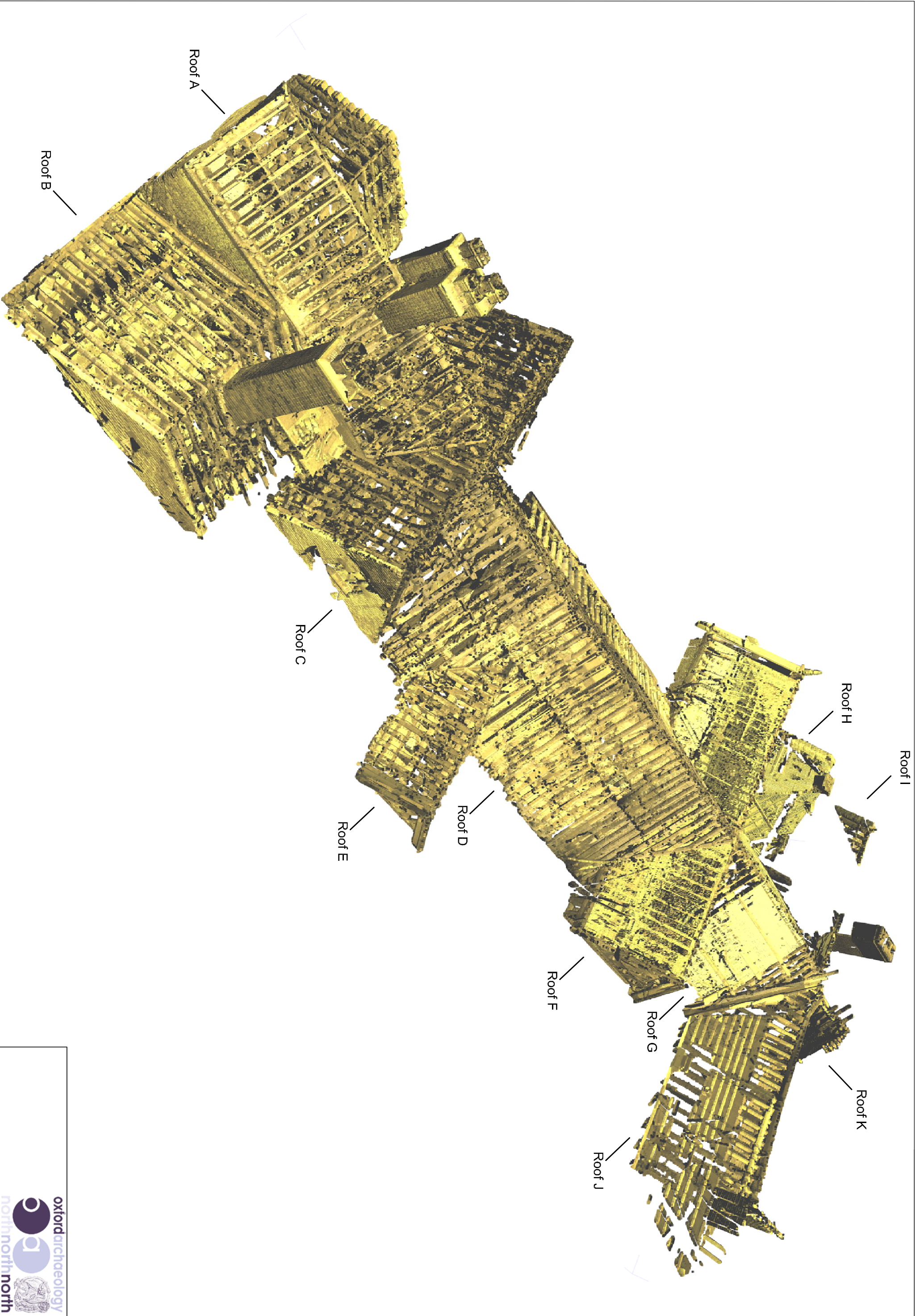


Figure 7 : Isometric view of the laser scan of the roof of Ordsall Hall from the north

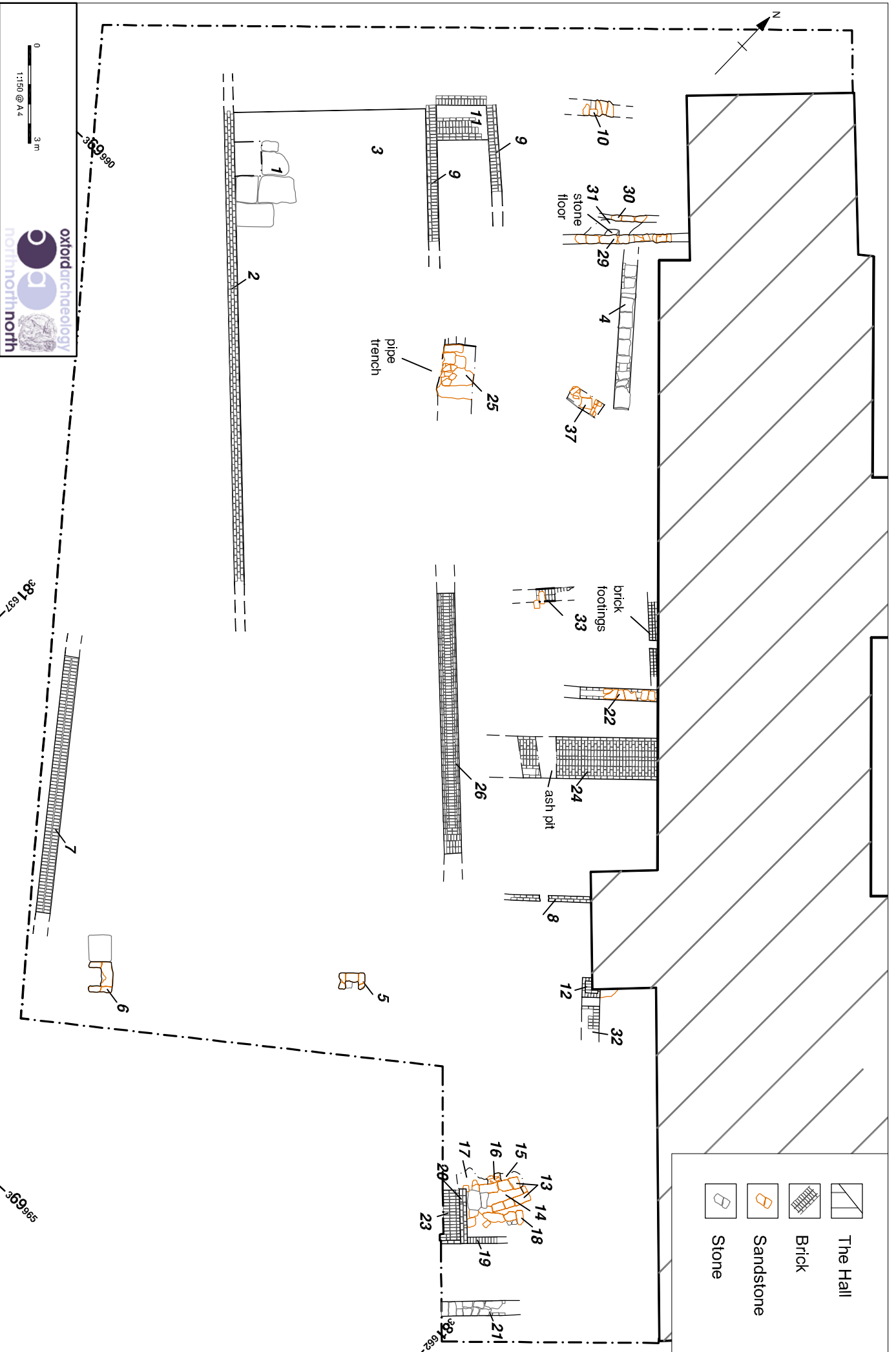


Figure 8: Herb garden watching brief

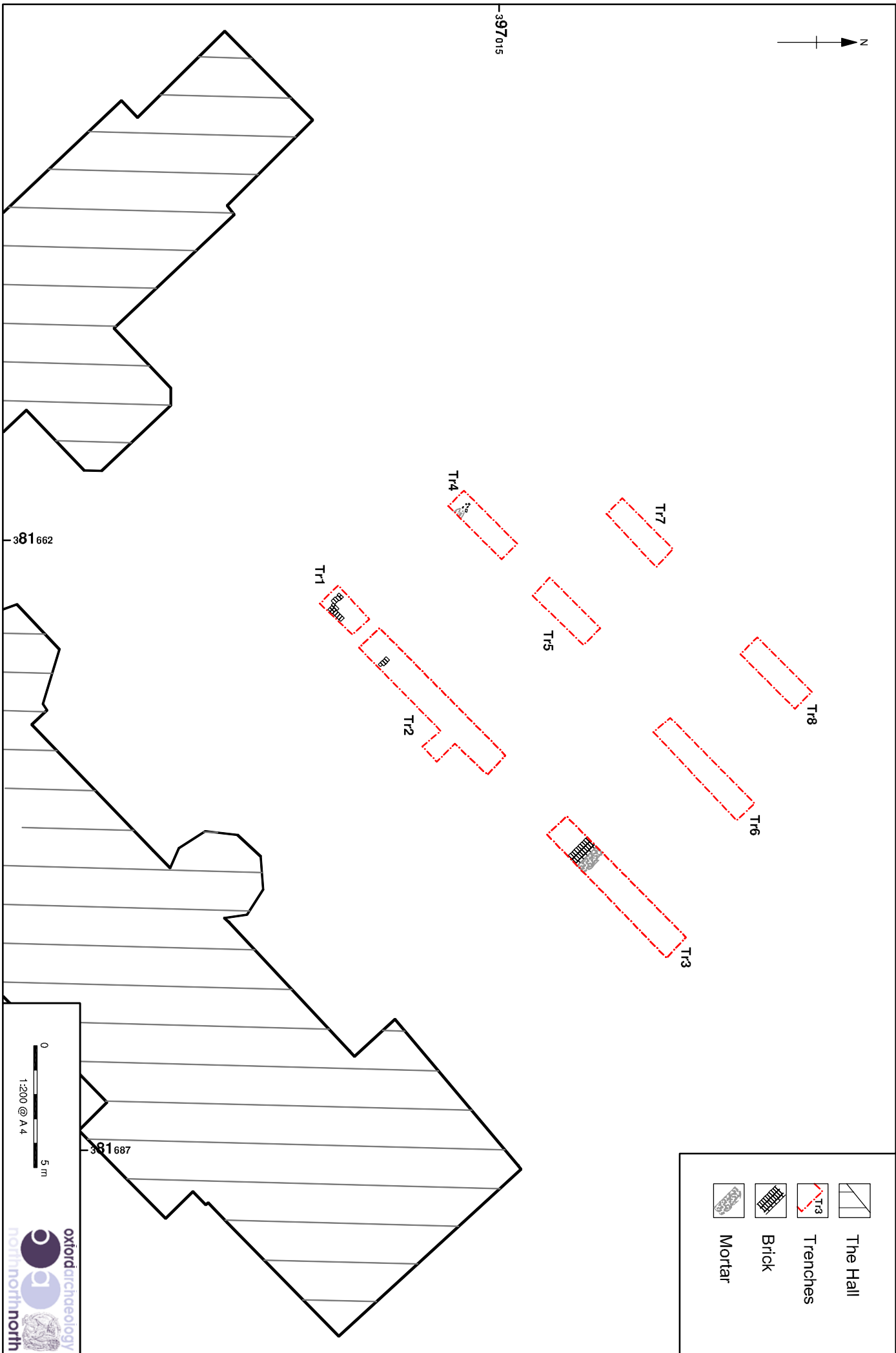


Figure 9: Formal garden watching brief

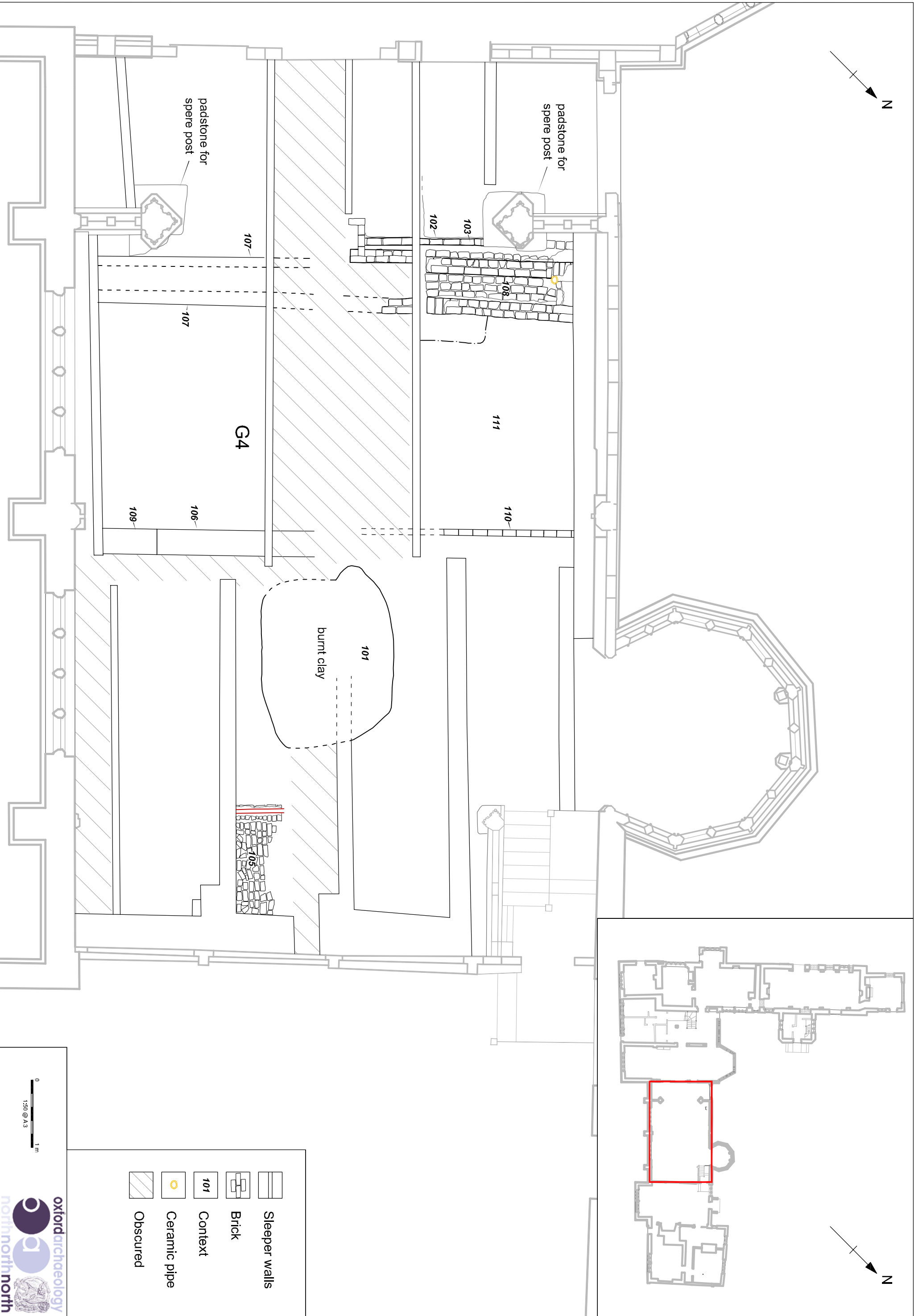


Figure 10: Plan of the excavation in the Great Hall

APPENDIX 1: PROJECT BRIEF

BRIEF FOR ARCHAEOLOGICAL WORKS AT ORDSALL HALL, SALFORD

1.0 Introduction

1.1 Background

Ordsall Hall is to undergo a major programme of refurbishment. Please see Appendix A for a summary of the project and Appendix B shows its location. As part of these works it is proposed to commission a targeted watching brief during the building and landscape works, which may include some small pieces of archaeological excavation as part of the building works.

There have been several pieces of archaeological fieldwork on land surrounding the hall, which has confirmed the line of the medieval moat and stone foundations for the former medieval east wing. An archaeological desk based assessment by UMAU in 2006 summarizes previous investigations and the history. 2006 also saw a community archaeology project on the west side of the hall grounds over the site of former out buildings; these are also reported on by UMAU. In terms of previous archaeological building surveys, there has been a detailed study of the surviving section of the east wing which included the medieval solar, as part of archaeological mitigation during refurbishment works here in 1994 (reported by GMAC). A survey on the west wing has recently been undertaken & will be available prior to this commission commencing. Please see Appendix C for the list of previous studies and other information available. It is expected that the archaeologists undertaking this work will first examine the grey literature archaeology reports to familiarize themselves with the site.

1.2 Timescales

1.2.1 The Hall is closed and due to re-open in April 2011.

1.2.2 The works to the building commence on the 18th May 2009 with a completion date of the 30th September 2010.

1.2.3 Phase 2 of the landscape works which consists of the moat artwork commission and works to the large grass areas will be undertaken this summer June – July 2009. The third & final phase of the landscape works starts in October 2010 until March 2011. A phasing plan is included as part of the pack of information listed in Appendix C. In addition there will be a separate landscape contract for the works to the grounds.

It is therefore crucial that you are able to commence this commission as soon as approvals obtained. The watching brief role will commence in June 2009 and run through to the completion of the landscape excavations estimated at February 2011.

2.0 The commission

2.1 Watching brief

2.1.1 The specific items of interest for the watching brief are listed below:

- 1) Repairs to the Star Chamber Ceiling.
- 2) The exposure of the spere post base in the Hall, and any lifting of existing floor.
- 3) A new door in south façade near spere truss base, where earlier wall

foundation may be seen.

4) G10 Kitchen. Excavate ramp beside inglenook fireplace and new access.

5) G11A. New lift base and new toilet works, and new access into G13.

6) G13. This will become a stair tower and will be stripped out providing an opportunity to understand the porch structure.

7) G11, G10 and G12. To be stripped back to bare wall.

8) F5A floor to be replaced. Need to check for early joists.

9) Removal of wall by chimneybreast F7 and stripping out of later fireplace by the lift shaft.

10) Access is to be provided to third floor roof structure, which has excellent 17th century timber framing.

11) All of the roof will be exposed in re-laying slates. This will provide a unique opportunity to photograph, describe and phase the roof structure.

12) Great Chamber floor to be strengthened and all floorboards will be replaced.

13) F1. Intervention work for new staircase and reduction of floor level by 100mm.

14) Landscaping of the hall grounds. The watching brief will be targeted on the Pergola (which will disturb c 1m depth of ground), planted areas (0.5m depth of disturbance) and where appropriate the ground works for paved areas and services.

2.1.2 Please provide a daily rate for the watching brief role based on an envisaged 28 days.

2.2 Excavation works.

2.2.1 G4 Great Hall - Please supply a separate quote for a small team of archaeologists for five days to undertake excavation of original floor surface beneath current hall flooring. This piece of work is not guaranteed due to presence of a heating duct that requires the removal of asbestos & due to the underlying floor structure remaining in place. A lump sum price is required for this work.

2.2.2 G10 Kitchen (the well). Please supply a separate quote for two archaeologists with confined space training to excavate well to a depth of approximately 4 metres. Price to include processing of finds. This piece of work is not guaranteed. A lump sum price is required for this work.

2.3 Report

A report is required documenting the results of the watching brief and the excavation works. A lump sum price is required for this work.

2.4 Interpretation advice

A new exhibition is part of the Ordsall Hall project. Information from the various archaeological investigations will be utilised within the exhibition. The exhibition designers / client team will produce the displays. Advice will however be required from an archaeologist to review the information. An hourly rate is to be provided for this work.

2.5 Other items

2.4.1 Archive and Publication

- i. An ordered site archive will be deposited with Salford Local Studies Library and Salford Museums Service.

- ii. The site will be published to an appropriate level commensurate with the significance of the survey results.

2.4.2 The Greater Manchester Sites and Monuments Record supports the Online Access to Index of Archaeological Investigations (OASIS) project. The overall aim of the OASIS project is to provide an online index to the mass of archaeological grey literature that has been produced as a result of the advent of large-scale developer funded fieldwork. The archaeological contractor must therefore complete the online OASIS form at <http://ads.ahds.ac.uk/project/oasis/>. Contractors are advised to contact the Greater Manchester Sites and Monuments Record prior to completing the form. Once a report has become a public document by submission to or incorporation into the SMR, the Greater Manchester Sites and Monuments Record may place the information on a web site. Please ensure that you and the client agree to this procedure in writing as part of the process of submitting the report to the case officer at Greater Manchester Sites and Monuments Record.

3.0 Other Considerations

- 3.1 The County Archaeologist, Salford Conservation Officer and client representative are to be consulted and issued with copies of the draft report.
- 3.2 The archaeological contractor will abide by the Institute of Field Archaeologists Bye-Laws of Approved Practice.
- 3.3 Copies of the final report will be sent to:
The client (x4), English Heritage Listed Buildings Inspector, Salford Conservation Officer, the County Archaeologist (GMAU), Salford Local Studies Library.
- 3.4 Consultants/contractors shall comply with the requirements of all relevant Health & Safety legislation and adopt procedures according to guidance set out in the Health & Safety Manual of the Standing Conference of Archaeological Unit Managers. Please provide within your tender submission a copy of your health & Safety policy, confirmation of being certified to work in confined spaces. In addition if you have operatives who have successfully undertaken the [CSCS - Construction Skills Certification Scheme](#), please state.
- 3.5 This commission is both a consultancy and contracting role. Salford City Council's standard terms & condition for both are attached and the appointed tenderer is expected to comply with the conditions. If there are items that cannot be complied with please state in the tender documents.

4.0 Tender submission

- 4.1 Please complete the enclosed form of tender. In addition please provide the following: -
 - Health & safety information as listed in section 3.3 above.
 - A brief statement on the type of project your company has previously worked on with particular relevance to this project
 - A brief statement on how you would undertake this project including a breakdown of how you have arrived at your daily rate for the watching brief.
 - The names & contact details of two referees.
- 4.2 Please ensure that your tender reply envelope is addressed as set out below. Top left hand corner please state: -

Quotation**Scheme:** Ordsall Hall – archaeology commission**Ref:** A/JA/OH**Closing date:** 26th May 2009 (no later than 2.00pm)

Please address the envelope to: -
Managing Director of Urban Vision Partnership Ltd
Business Strategy & Development
Emerson House
Albert Street
Eccles
Salford
M30 0TE

In addition, under NO circumstances must the tenderer name appear anywhere on the envelope otherwise the tender WILL be declared invalid.

Please note the client is Salford Council. Urban Vision Partnership is organizing this tendering process on behalf of the client team.

4.3 Quotes should include an allowance for inflation.

5.0 Contact details

5.1 This brief was originally prepared by Norman Redhead, Greater Manchester's County Archaeologist with revisions from Jackie Ashley, the project manager for the overall redevelopment project, from the Urban Vision Partnership Ltd.

5.2 Any queries during the tender period are to be put in writing via email to Jackie Ashley, contact details listed below.

Jackie Ashley
Project manager
Urban Vision Partnership Ltd
Emerson House
Albert Street
Eccles
Salford
M30 0TE Tel 0161 779 6043

Email Jackie.Ashley@urbanvision.org.uk

Norman Redhead
County Archaeologist
GMAU
Mansfield Cooper Building
The University of Manchester
Oxford Road
Manchester
M13 9PL
Email - norman.redhead@manchester.ac.uk

APPENDIX 2: FINDS CATALOGUE

| Object no | Context | Quantity | Material | Description | Period |
|-----------|---------|----------|---------------------------|--|----------------|
| 1015 | 4 | 1 | Industrial Residue | Unburnt coal | |
| 1014 | 4 | 1 | | Almost complete large brown beer bottle | 19th/20th c |
| 1016 | 4 | 2 | Clay Tobacco Pipe | Stems; large bored narrow diameter and narrow bored and thick diameter. Each smooth and unburnished | 17th/18th c |
| 1017 | 4 | 1 | Ceramic | Blue shell edge plate | 19th c |
| 1018 | 4 | 34 | Animal Bone | | |
| 1013 | 4 | 2 | Ceramic Building Material | Complete wire cut pale red bricks with large inclusion and lime mortar attached (240mm by 70 mm by 120mm) | 19th c |
| 1009 | 12 | 2 | Ceramic | Blue transfer printed refined whiteware sugar bowl, brown banded whiteware plate | 19th/20th c |
| 1022 | 14 | 1 | Clay Tobacco Pipe | Stem; thick diameter, narrow bore, smooth | 18th/19th c |
| 1021 | 14 | 2 | Glass | Clear frosted vessel glass and iridescent tumbler fragment | 18th/19th c |
| 1020 | 14 | 1 | Ceramic | Blackware with a metallic glaze and purple red fabric | 17th c |
| 1024 | 14 | 1 | Industrial Residue | Clinker | |
| 1023 | 14 | 1 | Animal Bone | | |
| 1025 | 15 | 2 | Ceramic | Worn plae green glazed sandy ware with incised surface decoration, olive green light red sandy ware | 14th/15h c |
| 1007 | 17 | 2 | Ceramic | Coarse dark brown glazed soft red ware with large inclusions, slightly burnt (15th/16th?). Black glazed red ware with fine hard fabric | 15th to 18th c |
| 1008 | 17 | 2 | Ceramic Building | Burnt brick fragment | 19th/20th c |

| | | | Material | | |
|------|------------|----|--------------------|---|----------------|
| 1006 | 17 | 1 | Glass | Boddington beer bottle fragment | 19th/20th c |
| 1026 | 21 | 1 | Clay Tobacco Pipe | Stem; large bored medium diameter, smooth | 19th c |
| 1028 | 27 | 1 | Clay Tobacco Pipe | Stems; ornate twisted decoration with foliage bordered panels (Chester type pers comm D Higgins, see Rutter and Davey) | 18th c |
| 1027 | 27 | 1 | Ceramic | Light brown stoneware | 19th/20th c |
| 1019 | 27 | 13 | Industrial Residue | Clinker from domestic fuel waste | |
| 1005 | 28 | 6 | Ceramic | dark brown glazed red ware (fine) jug (x 5). Cistercian type derivative form. Blackware | 16th to 18th c |
| 1004 | 28 | 1 | Animal Bone | | |
| 1012 | 39 | 1 | Lead | Strip | 19th/20th c |
| 1011 | 39 | 1 | Animal Bone | | |
| 1010 | 39 | 7 | Ceramic | Yellow and pale brown glazed stoneware sink bowl conduit (2), refine white earthenware handle, gwe plates with ORDSALL HALL SALFORD embossed (2), grown glazed we bowl base, Nott type stoneware bowl | 18th-20th c |
| 1000 | 100 | 1 | Copper Alloy | Military Badge embossed with P.G.SEC 1918 | 20th c |
| 1003 | 100 | 1 | Copper Alloy | Coin; George VI | 20th c |
| 1002 | 100 | 1 | Copper Alloy | Coin; heavily encrusted halfpenny. Illegible | 19th/20th c? |
| 1001 | 100 | 9 | Ceramic | Vessel; fragments from a polychrome pale green and yellow glazed jug based. Probable French import (Rouen?) | 15th c |

APPENDIX 3: CONTEXT INDEX

| Context | Type | Description | Phase |
|----------------|--------------|--|--------------|
| <i>1</i> | Surface | Probable floor east of wall <i>2</i> | 3 |
| <i>2</i> | Wall | North/south brick wall | 3 |
| <i>3</i> | Deposit | Soil/clay levelling layer | 3 |
| <i>4</i> | Drain | Located close to the western external hall wall | 2 |
| <i>5</i> | Structure | Small brick surface/pier associated with former outbuilding | 3 |
| <i>6</i> | Surface | Remains of flagged floor surface, probably contiguous with <i>5</i> . | 3 |
| <i>7</i> | Wall | North/south aligned brick external wall, probably contiguous with <i>5</i> | 3 |
| <i>8</i> | Wall | East/west aligned wall probably associated with the former kitchen | 4 |
| <i>9</i> | Structure | Group number for two north/south aligned walls (same as <i>26</i> ?) | 3 |
| <i>10</i> | Structure | Stone kerb, part of <i>9</i> | 3 |
| <i>11</i> | Wall | East/west aligned brick bridging wall at the northern end of <i>9</i> | 3 |
| <i>12</i> | Footing/Wall | Brick footing beneath bay protruding from the hall | 4 |
| <i>13</i> | Drain | Stone culvert possibly medieval origin | 1 |
| <i>14</i> | Deposit | Fill of <i>13</i> | 1 |
| <i>15</i> | Deposit | Buried soil | 1 |
| <i>16</i> | Deposit | Spread or dump | 2 |
| <i>17</i> | Pit | Possible upper charred fill | 3 |
| <i>18</i> | Wall | Wall overlying <i>13</i> | 4 |
| <i>19</i> | Wall | Brick | 4 |
| <i>20</i> | Structure | Coal store | 3 |
| <i>21</i> | Drain | Brick and stone culvert | 4 |
| <i>22</i> | Drain | Brick and stone culvert | 4 |
| <i>23</i> | Floor | Brick surface butting <i>20</i> | 3 |

| | | | |
|------------|-----------|---|---|
| 24 | Wall | Stone | 1 |
| 25 | Structure | Stone pad/foundation | 2 |
| 26 | Wall | North/south aligned external wall of kitchen | 4 |
| 27 | Dump | Demolition spread across most of the northern end of the strip | 3 |
| 28 | Deposit | Possible buried soil | 2 |
| 29 | Wall | Stone wall located in the northern part of the strip | 1 |
| 30 | Wall | Stone wall parallel with wall 29 | 1 |
| 31 | Deposit | Soil between walls 29 and 30 | 1 |
| 32 | Wall | North/south aligned brick wall | 4 |
| 33 | Structure | Possible chimney flue in the kitchen | 4 |
| 34 | Pit | Exposed in a pipe trench section | 3 |
| 35 | Deposit | Buried soil similar to 15 | 1 |
| 36 | Deposit | Levelling clay above 35 | 2 |
| 37 | Wall | Stone wall, possibly contiguous with wall 29 | 1 |
| 38 | Subsoil | Natural sand | - |
| 39 | Deposit | Demolition and soil layer along the western side of the hall associated with the former kitchen | 4 |
| 100 | Deposit | Unstratified/cleaning layer | 4 |