



MERLEWOOD, GRANGE-OVER- SANDS, CUMBRIA

Historic Building Investigation, Topographic Survey and Archaeological Evaluation



Oxford Archaeology North

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**JMP Architects and HPB
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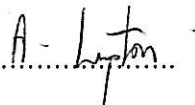
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SUMMARY

Planning applications have been submitted by JMP Architects, on behalf of HPB Management Ltd, outlining proposals to redevelop the site of Merlewood, Grange-over-Sands, Cumbria (SD 4095 7960) into a residential holiday complex (planning references 5/07/0585 and 5/07/0586). Merlewood is a Grade II listed nineteenth-century mansion with ancillary structures and is situated within extensive grounds. The proposals involve demolition of most of the ancillary buildings, to be replaced with new structures. The structures outlined for demolition date variously from the nineteenth century through to the late twentieth century. The main house is being retained and incorporated into the new development.

A previous desk-based assessment carried out by Oxford Archaeology North (OA North 2006) indicated that the site lies within an area of archaeological potential and that a number of the structures on site were of historical interest. Accordingly, Cumbria County Council Historic Environment Service (CCCHES) issued a brief for a programme of archaeological investigation and recording to be undertaken in advance of any development taking place. These works were to comprise an English Heritage Level II standard historic building investigation of a number of the structures that were scheduled for demolition, a topographic survey of the northern terrace and concrete WWII building platforms, and trial trench evaluations within the footprints of proposed new structures. Following submission of a project design, OA North was commissioned by HPB Management Ltd to undertake the works.

Historically, Grange-over-Sands developed into a resort during the nineteenth century and the opening of the Furness Railway in the 1850s brought in wealthy Manchester merchants looking for a country seat, of which Merlewood is a prime example. The estate was built in 1853 by Alfred Binyon, a partner in the Manchester printing firm of Thomas Hoyle and Sons. The estate originally comprised the house, stables and gardens, a tower and several other features being added in 1881. The estate remained in private hands until 1930 when it was sold and converted into a hotel. It was requisitioned in 1940 by the war office for training troops and reverted to a hotel seven years later. Merlewood Estate was finally bought by the Nature Conservancy Council in 1951, and was subsequently converted into laboratories, becoming known as the Merlewood Research Centre, and further extensions were added towards the end of the twentieth century.

The focus of the building investigation, undertaken in December 2007, concerned the majority of those buildings targeted for demolition within the proposed redevelopment scheme. Nine buildings were investigated, at least three of which probably date to the earliest phases of construction of the house in 1853. The remainder of the buildings are of twentieth-century date and include four WWII brick structures. The building investigation revealed that the south canted part of Building 1, an extension to the south-west corner of the main house, adjoining the mock pele tower, is of late nineteenth-century appearance and was possibly erected following the 1881 construction phase of the tower. The south part and internal timber roof structure of this building is of Edwardian appearance and may date to the early twentieth century. Earlier fabric is also present in the northern parts of Building 1. Building 2, a free-standing structure to the west of the main house, appears on the 1891 Ordnance Survey map but it may date to the original 1853 construction of the house. It shares

part of its roof with Building 1 and may be contemporary with the northern part of that structure. There have been some clear modifications to this building and the flat-roofed extension to the rear is obviously of twentieth-century date. Building 3, contemporary with, and to the north-west of, the main house, was probably used as a coach house, with three large rooms on the ground floor and the first floor utilised as living accommodation. The walled garden has seen much alteration; the only surviving traces of the original layout are the boundary walls, terrace wall and semi-circular structure labelled as 'Fountain' on the 1891 Ordnance Survey map. Brick walls located during the trial trench evaluation are probably the remains of glasshouse foundation walls.

The surviving brick military buildings represent a small part of the WWII camp complex and have since been modernised and converted into laboratories and offices. The presence of numerous platforms and concrete pads, surveyed in January 2008, suggest that some 24 other buildings, presumably of similar appearance, may once have existed and further concrete foundation slabs may lie undiscovered, covered by undergrowth and mulch. It is possible that these now vanished structures were temporary brick or timber hutments, and were simply dismantled after the War.

The evaluation, undertaken in January 2008, involved the excavation of six trial trenches within areas likely to be impacted upon by the proposed development; only three trenches revealed features or deposits of archaeological interest. Trench 1 contained two modern redbrick walls, which may relate to a former glasshouse or garden feature. The only trench that contained reasonably undisturbed deposits was Trench 3, although the identified pits and other negative features are likely to date from the use of the site as a research station. Such activity might also have truncated any nineteenth-century garden features. The high levels of disturbance and redeposited subsoil in the remaining trenches suggests that any archaeological remains that may have once existed are likely to have been truncated when the hillside was landscaped and terraced to accommodate the estate buildings and grounds in the 1850s.

ACKNOWLEDGEMENTS

OA North would like to thank Ian Nicholson of JMP architects and David Bullock of HPB Management Ltd for commissioning and supporting the project. Thanks are also due to the staff of the Cumbria County Record Office for their assistance and Jeremy Parsons of Cumbria County Council Historic Environment Service for his advice and support.

The building investigation was undertaken by Ric Buckle, Steve Clarke, Pip Haworth and Chris Ridings under the leadership of Karl Taylor. The topographic survey was carried out by Annie Hamilton-Gibney and Karl Taylor and the evaluation by Ric Buckle and Kelly Clapperton. The report was compiled by Kelly Clapperton and Karl Taylor and the drawings were produced by Alix Sperr and Marie Rowland. The project was managed by Stephen Rowland, who also edited the report.

1 INTRODUCTION

1.1 CIRCUMSTANCES OF THE PROJECT

- 1.1.1 Merlewood is a Grade-II listed nineteenth-century mansion located in woodland approximately 1km to the north of Grange-over-Sands, Cumbria (SD 4095 7960, Fig 1). The complex comprises the main house together with ancillary buildings and is located in extensive grounds. Planning applications have been submitted by JMP Architects on behalf of HPB Management Ltd (hereafter the 'client') outlining proposals to redevelop the site into a residential holiday complex (planning references 5/07/0585 and 5/07/0586). The proposals involve demolition of most of the ancillary buildings, to be replaced with new structures. The structures outlined for demolition date variously from the nineteenth century through to the late twentieth century (Fig 2). The main house is being retained and incorporated into the new development.
- 1.1.2 A desk-based assessment (OA North 2006) indicated that the site lay within an area of archaeological potential and that a number of the structures on site were of historical interest. Accordingly, Cumbria County Council Historic Environment Service (CCCHES) issued briefs for a programme of archaeological investigation and recording to be undertaken in advance of any development taking place (*Appendix 1*). These works were to comprise a historic building investigation, to English Heritage Level II standards, of a number of the structures that were scheduled for demolition, a topographic survey of the northern terrace and concrete WWII building platforms, and trial trench evaluations within the footprints of proposed new structures.
- 1.1.3 Oxford Archaeology North (OA North) submitted a project design (*Appendix 2*) at the request of the client, and this was subsequently approved by CCCHES. The building assessment was carried out over three weeks in December 2007 and the topographic survey and evaluation were undertaken in January 2008. This report sets out the results of all phases of work.

2 METHODOLOGY

2.1 PROJECT DESIGN

2.1.1 As far as possible, the CCCHES-approved project design (*Appendix 2*), outlining the methodology for the building assessment, survey and evaluation, was adhered to in full, and all works were undertaken in accordance with the relevant standards and procedures of the Institute of Field Archaeologists (IFA) and generally accepted best practice. Deviations from the project design were established in consultation with CCCHES and JMP Architects, and are detailed within the individual methodologies, below.

DBA Site	Description	Development Proposal	Archaeological Investigation
1	Stable Block and Courtyard	Demolition	Level II Historic Building Investigation (Building 3)
		Construction of Building C	
1	Nineteenth-century building between stable and tower	Demolition	Level II Historic Building Investigation (Building 2)
		Construction of Building C	
1	North-east/south-west aligned extension at south-west end of Merlewood mansion	Demolition	Level II Historic Building Investigation (Building 1)
		Construction of Building C	
21	Walled garden and associated internal and external lean-to structures	Demolition	Level II Historic Building Investigation (Building 4)
		Construction of Buildings A & B	Evaluation (Trenches 1, 2 and 3)
23	Terrace and other designed elements of the landscape to the north and east of Merlewood	General retention, but some landscaping to allow for the insertion of roads and services	Topographic survey
24	Derelict building at northern edge of development site	Demolition	Level II Historic Building Investigation (Building 5)
30	Second World War buildings	Demolition	Level II Historic Building Investigation and survey of platform locations of already demolished structures (Buildings 6-9)
		Construction of Building F	Evaluation (Trench 6)
	Land to the north of the Mansion	Access roads with associated services and drainage	Evaluation (Trench 4)
	Land between the mansion and the second world war buildings	Construction of Building E	Evaluation (Trench 5)

Table 1: Summary of archaeological investigation

2.2 LEVEL II HISTORIC BUILDING INVESTIGATION

2.2.1 **Introduction:** the historic building investigation was carried out to English Heritage Level II-type survey standards (English Heritage 2006), and involved the completion of the tasks outlined below.

2.2.2 **Documentary Research:** a brief study was undertaken of all readily available documentary sources in an attempt to trace the history, usage and function of the individual structures that were to be recorded. Research included:

- i. a rapid appraisal of the data in the Cumbria County Record Office, Kendal, together with any relevant information available from local libraries, archives and local history studies;
- ii. regression of historic maps, particularly the Ordnance Survey maps, in an attempt to provide information on the origin and development of particular buildings within the complex;
- iii. consultation with the Natural Environment Research Council (NERC), the previous tenants of Merlewood, in order that historic plans of the site might be accessed. Such avenues of enquiry, however, did not prove ultimately fruitful;
- iv. consultation with the local historian John Beckett, both personally, and his website, <http://mysite.wanadoomembers.co.uk/merlewood/index.html>;
- v. OA North has an extensive archive of secondary sources relevant to the study area, as well as numerous unpublished client reports on work carried out both as OA North and in its former guise of Lancaster University Archaeological Unit (LUAU). These were consulted where necessary.

2.2.3 **Descriptive Record:** a visual inspection of each of the buildings was undertaken and written records using OA North *pro-forma* record sheets were made of each buildings location together with a description of the type of building, purpose, materials and possible date. Particular attention was also paid to the relationship between parts of the building, especially those that would show its development and any alterations. These records are essentially descriptive, although interpretation is carried out on site as required.

2.2.4 **Plans:** despite lodging enquiries, and the efforts of JMP, no architect's plans were available for the survey, so digital site plans provided by the client were used as the basis for the production of scaled plans of each of the investigated structures. Each plan was checked for accuracy using electronic distance measuring equipment. During the survey, additional pertinent historic detail and annotation was added to the internal and external scale drawings. Section drawings were compiled through the buildings where appropriate.

2.2.5 The drawings are used to illustrate the phasing and development of the buildings. Detail captured by the annotation included such features as window

and door openings, an indication of ground and roof level, and changes in building material. The final drawings are presented through an industry standard CAD package.

- 2.2.6 **Photographic Archive:** photographs were taken of each building utilising 35mm and digital SLR equipment. The photographic archive consists of both external and internal views of the appearance of the building and detailed photographs of specific architectural details, which do not show on general views. Many of the internal rooms were of small dimensions and were photographed from restricted viewpoints, resulting in a limited record.

2.3 TOPOGRAPHIC SURVEY

- 2.3.1 Details of the northern terrace, together with any other element of the designed landscape that would be affected by the development, and the concrete slabs of the now demolished former military buildings, were recorded through instrument survey, tied into Ordnance Datum using Leica 1200 series DGPS survey equipment. GPS equipment was used initially, but, due to the high number of trees in the area, most of the survey was undertaken with a Leica 400 series total station.

2.4 EVALUATION

- 2.4.1 **Introduction:** the programme of evaluation trenching aimed to establish the presence or absence of any previously unsuspected archaeological deposits. The evaluation would then test the date, nature, depth and quality of preservation of any such deposits. Where possible, trenches were placed in accordance with the CCCHES-approved trench location plan (see Table 1), but in several cases the conditions on the ground prevented strict adherence to the location plan; as far as possible, the revised trench locations lay within areas of impact from the proposed development. Accordingly, Trench 4 was angled slightly to lie parallel with the present access road, whilst Trench 5 was angled to avoid an existing path. Trench 6 had to be moved to the west of its intended location, falling within an area that would be impacted upon by proposed Building E.
- 2.4.2 **Methodology:** six trenches, totalling 125m², were excavated across the development site (Fig 2). Nominally 11 m long, the trenches ranged in length from 9m to 12.6m, depending on the presence or absence of underground services, overhead cables and other physical restrictions. They were 2m in width, and excavated to an average depth of 0.6m. Three trenches (Trenches 1-3) were excavated in the walled garden to the north-west of the main house; Trench 4 was immediately to the north; and Trenches 5 and 6 were to the east of the house. Topsoil and overburden was removed by an eight tonne, 360° mechanical excavator under the control of an archaeologist, until either archaeological deposits were encountered, or natural geology. All trenches and deposits were hand cleaned using hoes and shovels, and inspected for archaeological remains. All remains of archaeological interest were investigated by hand, using trowels, shovels and brushes.

2.4.3 All the trenches and deposits were described and recorded using OA North *pro-forma* sheets, with plans and sections drawn on permatrace to an appropriate scale. An indexed photographic archive was created using colour-slides, monochrome prints, and digital photographs for presentation. The trenches were accurately located by total station, and all levels were established in relation to Ordnance Datum.

2.5 ARCHIVE

2.5.1 The results of all archaeological work carried out will form the basis for a full archive to professional standards, in accordance with current English Heritage guidelines (*Management of Archaeological Projects*, 2nd edition, 1991). The original record archive of the project will be deposited with Cumbria Record Office, Kendal, and copies of the report will be submitted to the CHER. The Arts and Humanities Data Service (AHDS) online database *Online Access to index of Archaeological Investigations* (OASIS) will be completed as part of the archiving phase of the project.

3 BACKGROUND

3.1 LOCATION, GEOLOGY AND TOPOGRAPHY

3.1.1 The development site at Merlewood is located south-west of the village of Lindale, and approximately 1km north-north-east of Grange-over-Sands (SD 40950 79606; Fig 1). It is situated in the north of Eggerslack Woods, on the lower slopes of the uplands of Hampsfell. The site lies within the area defined by the Countryside Commission as the Morecambe Bay Limestones (Countryside Commission 1998), typified by the conspicuous Carboniferous (Urswick) limestone hills, semi-natural coppice woodland and stately homes set in parkland landscapes. The local soils are generally shallow, base and rich, although deposits in the immediate area of the development are glacial drift, and give rise to heavier, sticky soils (*ibid*; Allen 2003).

3.2 HISTORICAL AND ARCHAEOLOGICAL BACKGROUND

3.2.1 **Introduction:** although it is not the aim here to wholly reproduce information provided in the desk-based assessment (OA North 2006), a summary of the archaeological background is provided to put the results of the building investigation and evaluation trenching within a historical context.

3.2.2 **Prehistoric Period:** the area around Grange-over-Sands contains prehistoric remains dating from the Palaeolithic to the Bronze Age. The earliest human activity in the area, indeed, for the whole of the North West, is represented by finds from Kirkhead Cave, Allithwaite, and Lindale Low Cave, both of which date to the Upper Palaeolithic (Hodgkinson *et al* 2000). A flint assemblage dating to the Mesolithic period has been identified at Levens (Wild 2003), and a contemporary stone hammer is known from Bogrells Farm (North 1934). Neolithic evidence relies on stray finds of stone tools, including several from the local area (Dickinson 1935; North 1934). There is evidence for extensive Bronze Age activity in the general vicinity. A cremation cemetery was excavated nearby, at Allithwaite, at the turn of the twenty-first century, and Bronze Age beaker burials are known from Levens (Wild 2003). There are numerous undated sites in the area that might well belong to the period, including hut circles and a burial cairn on Hampsfell (Hodgkinson *et al* 2000). There are no sites dating to the Iron Age located within the vicinity of the development. Although there are nearby defensive sites at Warton Crag and Castlestead promontory fort (Thomas 1976), it is assumed that many upland settlement sites are abandoned during the period (*ibid*).

3.2.3 **Roman Period:** very little Roman remains have been documented in the local area. Roman pottery, including Samian ware, has been recovered from nearby Merlewood Cave (Salisbury 1992), indicating a minor level of activity in the local area. The most significant find was a tombstone from Eller How, near Low Newton, 4km to the north-west.

- 3.2.4 **Early Medieval Period:** it is thought that by the seventh century the area of Grange-over-Sands was within the western expansion of the Anglian kingdom of Northumbria. Cartmel, approximately 8km to the south-west, was granted to St Cuthbert by King Ecgfith of Northumbria in AD 677 (Dickinson 1991); however, it is thought that Anglian influence was political rather than physical colonisation. Placenames suggest a significant Scandinavian presence on the area, likely to originate from the ninth century onwards. Elements such as *slack*, for example Eggeslack Wood, derive from *slakki*, Old Norse for shallow valley (Gelling 1984), whilst the suffix *-thwaite*, such as Allithwaite, is derived from the old Norse *thveit*, meaning clearing or pasture (*ibid*; Kenyon 1991). The numerous ‘wood’ names indicate that the area may have been heavily wooded during the early medieval period.
- 3.2.5 **Medieval Period:** it is likely that the current development site and the surrounding area belonged to the Cartmel Priory Estate during the medieval period. The Priory was not particularly rich, and the area, including Hampsfell, was quite barren and communications with the wider area remained poor until the nineteenth century (Dickinson 1991). The only sizeable private estate in the vicinity was Hampsfell Manor to the north-east (*ibid*; Farrer and Brownbill 1914), and the name ‘Grange’ suggests an outlying Priory farm. Nevertheless, by the sixteenth century, Grange served as a small port where sea coal was loaded (Dickinson 1991).
- 3.2.6 **Post-Medieval and Industrial Period:** after the Dissolution, nineteenth-century enclosure act had the most impact on the surrounding landscape. The area of the current development fell under the Enclosure Award for Cartmel in the early nineteenth century. The act enclosed ‘wastes’ and common lands, depriving many people of their previously held land rights, such as common grazing, but there was an improvement in communications, and in some farming practices (Stockdale 1872; Marshall 1958). To the west of the Merlewood Estate rectilinear fields known as the Bishop’s Tithe Allotments, are remnants of the 1809 Enclosure Awards.
- 3.2.7 Evidence for post-medieval industry in the area comprises limekilns and quarries, such as at Limekiln Wood and Cockle Wood (OA North 2006); and coppice stools. The lower slopes of Hampsfell contain evidence for coppicing activities, probably for the production of charcoal to fuel the aforementioned kilns and the iron industry, represented by the bloomery identified at Lindale Church (*ibid*).
- 3.2.8 It was during the Victorian Period that Grange-over-Sands developed into the exclusive resort it is currently known as. The opening of the Furness Railway in the 1850s brought in wealthy Manchester merchants looking for a country seat, of which Merlewood House is a prime example. Built in 1853 by Alfred Binyon, a partner in the Manchester printing firm of Thomas Hoyle and Sons, the estate originally comprised the house, stables and gardens; the tower and several other features were added in 1881 (Beckett 2006). The estate remained in private hands until 1930 when it was converted into a hotel. It was requisitioned in 1940 by the War Office for training, reverting to a hotel seven years later (OA North 2006). Merlewood Estate was finally bought by the

Nature Conservancy Council in 1951, and was subsequently converted into laboratories, becoming known as the Merlewood Research Centre. Further extensions were added towards the end of the twentieth century (*ibid*).

4 BUILDING INVESTIGATION RESULTS

4.1 INTRODUCTION

4.1.1 Merlewood comprises a complex of buildings and gardens, which vary in date, architectural style and function, situated within a landscaped estate. The focus of the building investigation concerns the majority of those buildings which have been targeted for demolition within the proposed redevelopment scheme (outlined in red on Figure 2). The centrepiece of the complex is the main house which, as it will not be affected, is excluded from the remit of the current work and will not be discussed. Similarly, there was no requirement for the investigation of two late twentieth-century buildings outlined for demolition: a laboratory block and a prefabricated ‘H-Block’. In total, nine structures, numbered 1-9, were investigated and the results are presented below. Where it is necessary to make reference to uninvestigated structures, this is done so by name, rather than by a number, for example ‘the main house’ or ‘the H-Block’. Structures can be cross-referenced with the 2006 desk-based assessment using Table 1. At the time of survey, all of the buildings were unoccupied and in good condition. All services were still connected, and all furniture and many fixtures and fittings had been removed.

4.1.2 At least three of the nine investigated structures (Buildings **2**, **3** and **4**, a walled garden), probably date to the earliest phases of construction of the house in the second half of the nineteenth century. A derelict building (Building **5**) located at the extreme northern edge of the development site, may be of an earlier date. The remainder of the buildings are of twentieth-century date and include an extension to the house (Building **1**) and four WWII brick structures (Buildings **6** – **9**).

4.1.3 Each of the buildings will be discussed in turn, commencing with Building **1**. An outline of the general nature of each structure will be presented followed by more detailed descriptions of the exterior and of each internal principal room and space. All of the internal spaces and rooms of each building are numbered separately, this numbering system commences at Room **1** in each building, so it follows that Building **1** Room **1** will be described as **B1-1** in the text. The walled garden (Building **4**) will be discussed as a whole together with the structures (mainly glasshouses) and landscape features enclosed within it. Discussion of the significance and nature of the results of the building investigation is presented in Chapter 5.

4.2 BUILDING 1

4.2.1 *General Description, Appearance and Layout:* Building **1** (Figs 3 and 4; Plates 1-7) is directly attached to and internally accessible from the south-west corner of the main house comprising a three-storey (mock pele) tower. It is clearly a later addition as evidenced by vertical butt joins at its junction with the main house (Plate 2). It is a single-storey structure of contrasting building styles, and appears to be of two or three distinct construction phases.

- 4.2.2 The northern part of the building follows the same alignment as the main house whilst the southern part is canted and lies on a north-east/south-west orientation (Fig 3). Internally, the building is divided into eight rooms accessed via two corridors, although some of the rooms are only accessible through other rooms. Two doorways provide external access to the north-west and south-east elevations of the building.
- 4.2.3 ***Fabric and External Details:*** the building exhibits differing construction details, suggestive of several phases of alteration. The northern part of the building, which is visible from the east side (comprising Room **B1-8**), consists of a gable and short section of wall and is constructed from coursed rock-faced sandstone with cement mortar (Plates 2 and 3). There is an obvious vertical butt joint and section of lead flashing where the gable meets the south wall of the tower. There is a second obvious butt joint where the north-east/south-west canted elevation of the building meets the east/west aligned northern part, comprising Rooms **B1-1** to **3** (Plate 3). The fenestration on the east side of Building **1** consists of steel-framed single-glazed casement window frames with concrete lintels and sills (Plate 2 and 3).
- 4.2.4 The south-east-facing elevation of the canted section of the building is faced with harling and contains fenestration similar in appearance to that on the northern part of the building (although wider and more squat), together with a modern glazed timber door (Plate 1). The south-west elevation of the canted part of the building is constructed from random coursed rubblestone with large quoins and smeared cement mortar (Plate 4). The fenestration consists of a timber bay window and, to the north-west, a casement unit with chamfered sandstone surround and decorative carved lintel (Plates 4 and 5). This appears to be a blocked doorway.
- 4.2.5 The north-west-facing elevation of the canted part of the building is also of random rubblestone construction with smeared mortar. Modern timber casement windows are present set within plain surrounds with slightly projecting sills. A doorway allows access to the connecting corridor (Room **B1-7**). The west-facing elevation of the northern part of the building is of similar fabric and contains a wide timber window with concrete surround. Access to this side of the building was restricted by undergrowth.
- 4.2.6 The north-facing elevation of the north part of Building **1** is whitewashed and is of random rubblestone construction (Plate 6). It forms the south wall of the small courtyard between the main house and Building **2**. A walkway is present between Buildings **1** and **2** which is roofed-over and allows access to the east side of Building **1** (Plate 7). It is evident that Buildings **1** and **2** are separate structures and that the roof of Building **2** extends to cover the walkway. Both the north slope of the roof of Building **1** and the east slope of the roof of Building **2** project out somewhat to form covered walkways which are supported on cast iron columns (Plate 6). The fenestration of the north elevation of Building **1** consists of three windows, which are all of different types (Plate 6). One is of steel-framed casement construction of similar manufacture to those on the east-facing elevations of the building, a second window is a timber mullioned twin one-over-one sliding sash without horns

(see also *Section 4.2.11*). The lower sash of the left hand window has four panes. The third window is an eight-over-eight sliding sash without horns, has no sill and may be contemporary with the first phase of construction (see also *Section 4.2.12*).

- 4.2.7 The roof of the entire building is of slate laid in diminishing courses with clay ridges and lead valleys. Most of the rain water goods are of plastic, although some cast iron down pipes survive. The canted part of the building has a lower eaves line than the northern part and the south end is hipped. Double-glazed skylights are present at the south end of the roof. The north slope of the roof meets the east-facing slope of the roof of Building 2. The bay window in the south-west-facing elevation has a small additional gablet roof. The roof of the west side of the building (comprising Room **B1-10**) lies at a ninety-degree angle to the main part of the room (Fig 4).
- 4.2.8 **Internal Details:** as already mentioned, there are eight rooms accessed via interconnecting corridors from the rear of the main house (Fig 3). Most of the rooms in Building 1 (in common with the other buildings) are of plain appearance and are empty. Each room will be described in turn, commencing with Room **B1-1**.
- 4.2.9 **Room B1-1:** this L-shaped corridor is accessed via a doorway located in the ground floor of the tower at the rear of the main house and allows access and egress to Rooms **B1-2**, **B1-3**, **B1-4**, **B1-5** and **B1-7** (Fig 3). It is plain in appearance with the south wall being of solid construction and containing recesses of unknown function; all the walls are painted (Plate 8). The north wall which divide the corridor from Rooms **B1-3** and **B1-4**, is of plasterboard construction and has been inserted to create these rooms; the corridor, together with Rooms **B1-3** and **B1-4**, was once probably a single large room. All the doors and surrounds are of late twentieth-century appearance. The floor is laid down to vinyl tiles and the ceiling is plain with modern strip light fittings.
- 4.2.10 **Room B1-2:** this room comprises the eastern end of the northern part of Building 1 (see *Section 4.2.3*) and is roughly square. It is plain plastered and the walls are of cinderblock cavity construction. The fenestration consists of two windows of steel casement construction (see *Section 4.2.3*) with square reveals on the external walls and a single frosted window with splayed reveals facing into the ground floor of the tower. This was probably once an external window prior to the construction of Building 1. All the windows have blinds. The floor is laid down to carpet over vinyl and the ceiling is plain. Modern heating, lighting and mid- to late twentieth-century shelving fixtures are present.
- 4.2.11 **Rooms B1-3 and B1-4:** these rooms are almost identical and will be discussed together. They are both formed by the insertion of plasterboard partition walls and have few distinguishing features. All the walls are plain and the floors are laid down to carpet. The fenestration differs slightly (see *Section 4.2.6*), with the steel casement being present in Room **B1-3** and the timber mullion is located in Room **B1-4**. Modern heating and lighting fixtures are present.

- 4.2.12 **Room B1-5:** this room is located at the end of the corridor **B1-1** (Fig 3) which, in common with most other rooms in this part of Building **1**, is quite plain. Similarly carpeted, the room has plain plastered walls and a plain ceiling. Modern light fittings are present, as are modern radiators and associated pipework. There is a single window in this room which is an eight-over-eight sliding sash (see *Section 4.2.6*) with lamb's tongue moulded glazing bars. There are two former doorways within this room, one of which allowed access into Room **B1-6**, the other into Room **B1-7**. Both doorways have been boarded with plasterboard, the former door into Room **B1-7** still retains a braced and ledged door which may have been external prior to the construction of the canted part of the building. It is possible that this room originally formed part of a larger space at this end of the building.
- 4.2.13 **Room B1-6:** at the time of recording, this room was accessed from corridor Room **B1-7**, but access was once available from Room **B1-5** (see *Section 4.2.12*). Indeed, the dividing wall between Rooms **B1-5** and **B1-6** may have been inserted and these two rooms possibly formed a larger single space. Room **B1-6** is of similar appearance to Room **B1-5** and all details such as floor coverings are identical. There is a wide window in the east wall which has a timber casement frame and has obviously been inserted.
- 4.2.14 **Room B1-7:** this room forms an irregular corridor and allows access from Room **B1-1** to **B1-6**, **B1-8** and **B1-9** (Plates 10 and 11; Fig 3). It was probably formed when the canted part of the building was constructed. The walls are all painted white and are part rendered and part unfinished random rubblestone, suggesting that some of the walls were once exterior elevations. The door jambs into Room **B1-9** exhibit some worked stone. The floor is laid down to vinyl tiles and the ceiling is plain plastered, with a single boxed beam evident. Modern radiators and light fittings are present. There is an interesting opening (of indeterminate function) located to the left of the door into Room **B1-9**, revealing brick fabric.
- 4.2.15 The room functions as the principal corridor to the building, and there are two doors allowing access and egress to the south-east and north-west exteriors of the building. The west door apparently has been inserted, but both doors are of modern appearance. A short brick wall at the west end of the room conceals a toilet.
- 4.2.16 **Room B1-8:** this room is triangular and is quite plain in appearance, with few distinguishing features. All the walls are solid and plain plastered, the floor is laid down to vinyl over timber floorboards, and the ceiling is plain. Modern radiators provide heating, and strip lights are present. There is a single wide steel casement window located on the external wall (see *Section 4.2.3*). Wooden shelf and drawer units remain on the south wall.
- 4.2.17 **Room B1-9:** this is the largest room in the building and the least plain (Plates 12-16). The most distinctive feature is the roof, which is of hipped single-framed construction, with a PVCu double-glazed roof light and panels (Plate 2). Only one side of the hipped roof is visible externally (Plates 1 and 2). The beams are timber (painted black in the main part of the room) with ovolo

moulding and run-out stops (Plates 14 and 16). Four turned bosses are present at each corner of the frame for the roof light (Plate 15).

- 4.2.18 There are two wide steel-framed windows located on the east wall (see also *Section 4.2.4*) and two doorways are present, one of which facilitates the only access into Room **B1-10**, to the north-west. The door from corridor Room **B1-7** is of six-panel construction, two of which are glazed with reeded glass (Plate 13). An arched recess at the east side of the north wall once probably housed shelving. The floor is laid down to carpet over timber boards of unknown specification.
- 4.2.19 This room still contains wooden shelving, cupboards and benches which attest to the probable last use of this room as a laboratory or offices. A modern stainless steel sink is also present. A glazed partition wall is present at the south end of the room, which creates a small, separate annex containing similar benches. The bay window present at the south-west end contains leaded lights.
- 4.2.20 **Room B1-10:** a modern glazed doorway allows access from Room **B1-9** into this rectangular room which is plain (Plates 17 and 18). There are three windows on the east wall, all of which have splayed reveals with angle beads. The central window is a walk-in reveal, whilst the others have timber sills. The window on the north wall has a splayed reveal and plain timber sill. All the windows are of modern timber casement appearance. The floor is laid down to carpet and the ceiling is plain.
- 4.2.21 An interesting cast iron ventilation flap is present on the north-east wall, which has a corresponding grille in the wall in Room **B1-7** (Plate 19). This may be of nineteenth-century date which, in conjunction with certain other features of Building 1 suggest that parts of the building date to the nineteenth century.

4.3 BUILDING 2

- 4.3.1 **General Description, Appearance and Layout:** Building 2 is located to the north of Building 1, to the east of the main house (Figs 5 and 6) and is of a single storey. It is separated from the other buildings within the complex, although part of the roof is joined to the roof of Building 1, which appears to be contemporary. This covers a narrow walkway between the two buildings (Plate 7). The east and south parts of the building have pitched roofs and an extension to the rear is flat roofed (Fig 6). It is apparent that the building was originally 'L-shaped', and there are at least two phases of development. The flat roofed extension has thinner external walls than the rest of the building (Fig 4).
- 4.3.2 There are eight rooms and two corridors (Rooms **B2-2** and **B2-10**) within this building. Access is available via three separate doorways (Fig 5).
- 4.3.3 **Fabric and External Details:** the east side of the building is constructed from random rubblestone with smeared mortar and substantial limestone quoins (Plates 20 and 21). The east-facing elevation is painted and contains two large

windows, one of which is a timber-mullioned double, eight-over-one and eight-over-two sliding sash, both without horns (Plate 20). It has a substantial lintel and plain jambs. The other window aperture is somewhat larger and has a similarly large lintel and projecting sill. It is glazed with a steel-framed casement of similar appearance to those described in Building 1 (see *Section 4.2.3*). There are two doorways, both of which have large lintels and plain panelled doors. A further door is present on the south side of the building. Both the doorways in the east elevation are of robust plank and ledge construction.

- 4.3.4 The roof of this side of the building extends to meet the north slope of the roof of Building 1 and there is a continuation of the covered walkway described in *Section 4.2.6*. This is supported upon three further cast iron columns (Plates 6 and 20). The roof is of exactly the same fabric as the roof of Building 1, the only difference being a stone ridge and ball finial at the north end which is, incidentally, identical to example present on the house and the 'Growth Rooms' on Building 3. A collection of out-sheds is present at the north end of Building 1 within a small, enclosed yard. An owl hole is visible near the apex of the north elevation.
- 4.3.5 The west side of the building is partly obscured by the addition of a flat roofed extension which is rendered in a similar fashion to the east-facing elevation of Building 1 and has similar wide steel-framed fenestration (Plate 21). The roof is of flat bitumen felt construction.
- 4.3.6 **Internal Details:** the interior rooms of this building are of similar appearance to those already described for Building 1. Some of the internal rooms have been created by partitioning larger spaces (Fig 5).
- 4.3.7 **Room B2-1:** this room occupies the northern half of the eastern part of the building and has been partitioned in order to create corridor Room B2-2 (Fig 5). The room is of plain appearance and the walls are for the most part plain-plastered. Areas of painted brick indicate rebuilding of the window apertures on both sides of the room. Both apertures have timber lintels. The fenestration comprises twentieth-century steel and timber casement windows of similar style to those within Building 1. The east window has a splayed reveal while the west is square.
- 4.3.8 The partition wall separating this room from Room B2-2 is a late twentieth-century construction and contains the only doorway into the room. The ceiling is high, plain and respects the roof slope (access to the roof space was unavailable at the time of survey). The floor is laid down to carpet, presumably over concrete. The heating and lighting fixtures are all of late twentieth-century appearance. A modern stainless steel sink and work surface is also present, together with modern pipes.
- 4.3.9 The most notable feature of this room is the wide recess located in the north wall (Plate 22). This has a substantial timber lintel and is partially obscured by boards. Some wrought iron hooks are visible above the recess. It may be a redundant fireplace.

- 4.3.10 **Room B2-2:** this room comprises a corridor that allows access and egress to Rooms **B2-1**, **B2-3** and **B2-5** (Fig 4). All the other rooms in the building are accessed via Room **B2-5**. This room shares the same details as already described for Room **B2-1** and is, for the most part, unremarkable. The south wall contains what appears to be a chimney-breast together with evidence for a blocked fireplace. This would be consistent with a central flue originally serving two rooms in this part of the building. There is no chimney-stack visible externally, but it may simply have been removed.
- 4.3.11 Modern doorways allow access into Rooms **B2-3** and **B2-5**. The door into Room **B2-3** is of braced and ledge construction and the wall around it appears to have been rebuilt. There is a significant step up into Room **B2-5**.
- 4.3.12 **Room B2-3:** this is a small rectangular room which, together with the adjacent Room **B2-4**, once obviously formed a larger room (Fig 4). This room is very plain and all the walls are of plain plaster. The south wall is of part plasterboard and part solid construction and divides this room from Room **B2-4**. In common with Room **B2-2**, there is a chimney-breast present in the north-east part of the room, with evidence for a blocked fireplace.
- 4.3.13 There is a single window located in the east wall, which is part of the mullioned sash windows described in *Section 4.3.3*. The partition wall separating this room from Room **B2-4** bisects the window, the other half being visible in that room. There is no sill. A modern shower cubicle is present to the right of the window on the east wall.
- 4.3.14 **Room B2-4:** in common with the other rooms in this part of the building, the room is quite plain in appearance and all the walls are plain plastered. The north wall is plasterboard and as discussed above, the room was once probably part of a larger space. A similar recess to that present within Room **B2-2** is located within the south wall, which again may be a redundant fireplace (Plate 23).
- 4.3.15 There is a window located on the east wall which corresponds to that described for Room **B2-3** and has a slightly splayed reveal. There is a similarly splayed recess located in the west wall (Fig 5) which may be a former window. The door allowing separate access and egress to the walkway to the east, is identical to that described in Room **B2-2** (*Section 4.3.11*). The ceiling has been lowered and is of plasterboard construction.
- 4.3.16 **Room B2-5:** this room is located in the flat-roofed extension at the rear of the building (in common with Rooms **B2-6** and **B2-7**) and access to all the other rooms in this part of the building is available through this room (Fig 5). It is of very plain appearance and has no distinguishing features. The floor is laid down to carpet tiles and the ceiling is plain plasterboard (the ceilings in Rooms **B2-5**, **B2-6** and **B2-7** are lower than those in the other parts of the building). The heating consists of a single modern radiator and all the lights are modern. There is a single wide timber casement window set within the north wall which has a substantial security grille (all the windows in the rear part of the building have the same grille). A plasterboard partition wall divides this room from Room **B2-6**, and these rooms may once have been a single space.

- 4.3.17 **Room B2-6:** almost identical to Room **B2-5**, Room **B2-6** differs only in that there is a steel-framed casement window rather than timber.
- 4.3.18 **Room B2-7:** this room is of very similar appearance to Rooms **B2-5** and **B2-6** and it has been partitioned in order to create a small closet (Fig 5). There is a steel casement window located in the north wall of identical appearance to that in Room **B2-6**. The only access into this room is via the corridor Room **B2-10** Through a modern door with frosted, reeded glass. A small toilet room is sandwiched between this room and Room **B2-8**, which has a small casement window with a splayed reveal.
- 4.3.19 **Room B2-8:** the rooms **B2-8**, **B2-9** and corridor **B2-10** are within the south-western part of the building (Fig 5). Room **B2-8** is triangular-shaped and very plain in appearance with a single timber casement window, high plain plaster ceiling and cork tiled floor. The room appears to have last been used for storage, as metal shelf units are still present.
- 4.3.20 **Room B2-9:** this is one of the only rooms in the entire complex to retain a door nameplate of the probable last occupant, a Dr David Howard Q103. The room is plain and contains a steel-framed casement window on the south wall. Wall scars indicate the former presence of a table and wall mounted cupboards. The modern doorway is set within a tall recess which may be a blocked opening of some description. The room is otherwise unremarkable.
- 4.3.21 **Room B2-10:** this is a corridor through which access to Rooms **B2-6**, **B2-7**, **B2-8** and **B2-9** is available (Plate 24; Fig 5). It is plain and of similar appearance to Rooms **B2-8** and **B2-9**. Evidence of shelving is present and various pipes and cables are fixed to the walls. External access and egress to the south of the building is available.

4.4 BUILDING 3 (FIGS 7-9)

- 4.4.1 **General Appearance, Description and Layout:** Building **3** is situated to the north-west of the main house and is entirely separate from any other structure (Fig 2). The building(s) comprises a main two-storey stable block together with two outshuts/extensions (to one of which there was no access while the other housed two rooms called 'Growth Rooms') (Fig 7). A small cobble yard lies at the front of the building, which is bounded to the east by a low wall with wide opening (Plate 25). The wall is of rock-faced block construction with large gate posts, each of which has a substantial plinth and moulding. To the rear (west) of the building lies the south end of the walled garden. Entry to the building was via a single doorway located in the east elevation although (locked) large double doors are present. There are five rooms on the ground floor of the main building (Fig 7), including the staircase and entrance corridor and seven on the first floor (Fig 8). The extension at the northern end of the building is single-storey and has two rooms. There is no access to the extensions from the main block.
- 4.4.2 **Fabric and External Details:** the main building is constructed from random limestone rubblestone with tooled limestone quoins (Plate 25). All the other

elevations of the main buildings are covered with harling. All of the rain water goods are plastic. The roof of the main stable building is of slate with ceramic ridge tiles.

- 4.4.3 The main elevation faces east and contains the main entrance (modern door and window), which is set within a wide-arched wagon door (Plate 27). The inset doorway is modern and is obviously a later addition. The original opening has a substantial four-centred arch of tooled and chamfered limestone with straight cut stops. Above this is a window, which is plain and has a substantial limestone lintel. It is glazed, with a nine-light frosted glass timber frame. The remaining fenestration consists of a second window on the first floor, which is again, plain with a projecting sill and limestone lintel. This is glazed with a modern timber casement frame. A further window on the ground floor is similar but has a multi-light frame with a timber mullion. There are two blocked ventilation slits visible at first floor level within the northern half of the elevation. A shouldered drip mould is present between the ground and first floors, which exhibits chamfering.
- 4.4.4 A wide doorway is located to the south of the wagon door. It has a RSJ lintel and appears to have been inserted at a later date. The doors are modern and the aperture has been cut into the stonework.
- 4.4.5 The south gable elevation is partly obscured by a small outshut (modern) and is very plain. It is covered with harling and contains a single window aperture on each floor. The window on the ground floor is a six-light timber affair with slightly projecting sill, while that on the first floor has a timber side opening casement frame. Both surrounds are plain. The south east corner of the building between the main elevation and the south elevation is chamfered to first floor height (Plate 28). The outshut attached to this elevation is of late twentieth century appearance.
- 4.4.6 The west-facing (rear) elevation is again covered with harling and is very plain in appearance (Plate 26). The land at the rear of the building is raised, which partially obscures parts of the ground floor, to which access is available via a sunken walkway (Fig 9). A slightly projecting gable is present in the centre of the elevation, which contains Rooms **B3-2** and **B3-11** (Figs 7 and 8) and corresponds to the arched doorway described in *Section 4.4.3*. The fenestration consists of four plain timber casement windows on the first floor. Two of these have timber sills, are slightly larger than the others, and appear to be of a later phase. A steel ladder is fixed to the wall below the window at the south end of the elevation and enables access to Room **B3-12**. There is also a very small opening with stone sill and two-light timber frame located in the projecting gable to the left of the main window (Plates 26 and 29). There are four windows on the ground floor with modern casement frames. A projecting rendered chimney-breast/flue is located at the south-west corner of the building which appears to be redundant and may serve the modern outshut.
- 4.4.7 The fabric of the north elevation of Building **3** is of similar appearance to the front elevation, but has smeared cement mortar. Almost all of the ground floor is obscured by the raised ground level and shrubbery and a similar sunken walkway to that on the west elevation is visible. The fenestration consists of

two modern casement windows, one of which has a timber sill. A small aperture is visible just above the first floor window which may have originally served as ventilation. Some rebuilding is also evident.

- 4.4.8 The extension at the north end of the stable block, which contains Rooms **B3-14** and **B3-15**, the 'Growth Rooms', is of similar construction to the main block. The south elevation, which contains the main doors, is covered with harling and contains two wide doors and a large window, all of which appear to have been inserted during a later phase (Plate 37). This side of the building may once have been open. The east gable elevation is of rubblestone construction and contains a single timber mullioned multi-light casement of similar appearance to that on the ground floor of the main block of Building **3** (Section 4.4.3). It has a projecting sill and shouldered head mould (Plate 30). Above this is a small ventilation opening with projecting sill. The verge projects and the purlins are visible. The north elevation of the 'Growth Rooms' was obscured by vegetation but appears to be of the same appearance as the north elevation of the main building. There is a single window present. The roof of the 'Growth Rooms' is similar to the others within the complex, has stone ridge tiles and a ball finial identical to that on Building **2** (Section 4.3.4).
- 4.4.9 **Internal Details:** there is but a single entry point into the building which leads into the main entrance lobby, Room **B3-1**. This building has been extensively modified internally in order to create offices. All the rooms in this building are of late twentieth-century appearance and some have been created by partitioning larger spaces which are divided by two solid cross walls.
- 4.4.10 **Room B3-1:** this room is the main entrance lobby/foyer and allows direct access to Rooms **B3-2**, **B3-4**, **B3-5** and **B3-6** (Fig 7). It comprises two areas, the smaller of which forms an antechamber of plain appearance. The walls of the antechamber are of solid construction, although those to the south and west have been inserted later. The internal face of the arch described in Section 4.4.3 is visible within the eastern face of the wall (Plate 31).
- 4.4.11 The larger of the two areas, to the north, is of similar appearance, with plain plastered walls, carpeted floor and plain lath and plaster ceiling. This part of the room is stepped up from the smaller area and the interconnecting doorway appears to have been knocked through during a later phase. The walls of this room are all of plasterboard construction and modern self-closing doors allow access to Rooms **B3-5** and **B3-6** to the north. A similar doorway, with glazed transom, allows access to the staircase, Room **B3-4**. There is a single walk-in window on the east wall which has a timber mullion multi-light casement frame. Modern heating and lighting fixtures are present.
- 4.4.12 **Room B3-2:** this is a very plain room with a low suspended ceiling and carpeted floor. All the walls are of plain plaster with recesses in both the north and south walls which contain shelving. The east walls of the room have been inserted to form part of Room **B3-1** and Room **B3-2a**, probably at the same time that the wagon doors were sealed and the present modern entrance inserted. There is a single window located within the west wall which has splayed reveals and a plain timber sill. The window has a security grill of

- identical appearance to those in Building 2. A modern doorway allows access to Room **B3-3**.
- 4.4.13 **Room B3-2a**: this is a small cupboard/storage area of identical appearance to Room **B3-2**. There is a single modern window on the east wall and a blocked doorway on the south wall, which originally allowed access to Room **B3-3**. The internal side of the arched doorway is visible.
- 4.4.14 **Room B3-3**: this room has a raised floor, and the tile suspended ceiling is of very plain modern appearance. It was apparently last used as a computer or server room and wiring is visible below the floor. There are two windows with square reveals, which have security grilles attached. Double doors (locked) are present within the east wall and correspond to those on the exterior of the building. These were probably inserted during a later phase.
- 4.4.15 **Room B3-4**: this room comprises the staircase allowing access to the first floor of the building (Plate 32). In common with the other rooms in this building the walls are all of plain plaster, the ceiling is plain (with single boxed beam) and the floor is carpeted. The north and east walls are of plasterboard. The staircase itself is of late twentieth-century appearance and is of narrow open well design, with a half landing. There is a single window with square reveal giving light to the half landing together with low recess, which appears to be a former door allowing access into Room **B3-2**. It is clear that this staircase has been inserted during a later phase. The location of any former staircase remains unknown.
- 4.4.16 **Room B3-5**: this room is of similar appearance to Room **B3-2** and has a suspended ceiling and carpeted floor. All the walls are plain plastered, the west wall being of plasterboard construction. It is probable that rooms **B3-1**, **B3-4**, **B3-5** and **B3-6** were once a single open space. There is a single high window located on the north wall which has a security grille. It has splayed reveals and a partly sloping sill, although there is evidence to suggest this window was of walk-in style. A recess in the east wall may be a blocked doorway which once allowed access into Room **B3-14**, although there is no firm evidence for this.
- 4.4.17 **Room B3-6**: of identical appearance to Room **B3-5**, this room is very plain and contains few features worthy of note. There are two high windows on the west wall with square reveals. Water ingress and damp is obvious in this room.
- 4.4.18 **First Floor, Room B3-7 (Fig 8)**: this is the long corridor on the east side of the building allowing access to all the rooms on the first floor of the stable block (Plate 33; Fig 8). The room is, in common with the other rooms, of plain appearance with a carpeted floor and plain plastered ceiling (which is of varying height). All the dividing walls between the rooms are of plasterboard construction and appear to have been inserted during later phases. There is a single walk-in window located approximately half way along the east wall, which has square reveals and is glazed with frosted lights, two of which are yellow. Opposite this, a modern window allows light into Room **B3-11**.

- 4.4.19 **Room B3-8:** yet another plain room lacking in distinguishing features, Room **B3-8** is identical in general description to all the other rooms already outlined. It has been created by the insertion of partition walls (Fig 8) and the projection of the staircase into the south side of the room. The door is of four-panelled design of mid-twentieth-century appearance. There is a small ceramic 'Belfast'-type sink in the south-west corner and a small shelf area. The single window on the west wall has square reveals and the frame is a composite construction of steel and timber. Modern heating and lighting fittings are visible.
- 4.4.20 **Room B3-9:** this room is located at the north-west corner of the building and is, again, very plain in appearance. Obviously once part of a larger space at this end of the building, the internal walls are of plasterboard construction. The single window is identical to that in Room **B3-8**.
- 4.4.21 **Room B3-10:** this is a small square room identical in appearance to Room **B3-9**. There is a single window set within the north wall which has a splayed reveal and has a modern timber casement frame.
- 4.4.22 **Room B3-11:** the largest room on the floor, (together with Room **B3-2**, below) forms part of the projecting gable at the rear of the building (*Section 4.4.6*). The room is of similarly plain appearance to the others within this building and has a single walk-in window with splayed reveals and a modern timber casement frame. There are two recesses set within the north wall, one of which contains modern shelving. A wider recess adjacent to this is similar to that described within Room **B3-2** (Plate 34; *Section 4.4.12*). The east wall is of plasterboard construction and contains a window with reeded glazing. There are two rafters visible, which form the valley rafters where the roof of the slightly projecting gable meets the main roof.
- 4.4.23 **Room B3-12:** this room was once part of a larger space incorporating Room **B3-13** and which encompassed the south end of the building (Fig 8). The rooms are divided by plasterboard partition walls which are part of a later phase. The room is plain and the fenestration consists of two splayed windows located in the south and west walls (Plate 35). They differ slightly in construction and may belong to slightly different phases. Both have timber casement frames. There are two recesses within the room, which were apparently last used for shelving.
- 4.4.24 **Room B3-13:** structurally part of Room **B3-12**, this room contains a modern toilet and wash basin. Its appearance is identical to most of the other rooms in this building. It is further partitioned to create a small cupboard which contains a sink. The partition bisects a window on the east wall which has a splayed reveal and has a modern casement frame.
- 4.4.25 **The Roof Space:** limited inspection of the roof space revealed that it is of mostly late twentieth-century construction with reinforcing rolled steel joists. The only fabric possibly contemporary with early phases of construction, are the timber joists (Fig 9; Plate 36).

- 4.4.26 **Ground Floor Room B3-14:** both this room and Room **B3-15** are situated with the 'Growth Room' wing of the stable block (Fig 7). It is apparent that both of these rooms were created by the partial blocking of the south elevation of this eastward projection of the stable block building, which was probably open with piers (Plates 37 and 39). Room **B3-14** is plain plastered and lime-washed with a concrete floor and open up into the roof. There is a single truss, which is of bolted king post construction and probably dates to the late nineteenth century (Plate 38). Two purlins are also present and no decorative mouldings are evident. There is a single window with splayed reveal and multi-light casement set within the north wall which has a sloping sill. The south wall contains a wide window and double doors of braced and ledged construction (Plate 39). Both the door and window have transom lights. A modern worktop and sink unit are attached to the wall. There are two large plywood constructions in this room which were evidently the 'Growth Tanks'.
- 4.4.27 **Room B3-15:** this room is similar in appearance to Room **B3-14** but has a flagged floor and no truss. An identical door to that in Room **B3-14** is present on the south side and there is a walk-in window with splayed reveals set within the east wall. The room is separated from Room **B3-14** by a solid wall which appears to be of an early phase.

4.5 THE WALLED GARDEN (BUILDING 4)

- 4.5.1 **Introduction:** the walled garden at Merlewood is situated to the north-east of the main house and immediately to the north and west of Building 3 (Fig 2). It is bounded on all sides by walls of varying construction and has two entrances within the north and south walls. To the west of the garden the land immediately slopes steeply and is thickly wooded. At the time of the investigation much of the interior of the garden and most of the boundary walling was obscured by thick vegetation. This limited the scope of inspection and has necessarily reduced the detail of the results. Nevertheless, an outline of the results of the building investigation follows commencing with the boundary walls.
- 4.5.2 **The Boundary Walls:** as already indicated, the boundary walls of the walled garden vary somewhat in construction, the west and east long walls being of random rubblestone with concrete/flag copings (Plate 40). The walls are approximately 1.9m high. Parts of the west wall are faced internally with machine-made bricks of quite large dimensions (0.24m x 0.12m approximately). Much of the west wall was obscured and detailed inspection was impossible.
- 4.5.3 The south wall is constructed of machine-made red brick externally (Plate 41) and random rubblestone internally. A doorway with rough limestone quoins is located at the west side. Concrete and flagstone copings rest atop the wall.
- 4.5.4 The north wall is of more piecemeal construction, the exterior being of random rubblestone construction with smeared mortar and concrete copings (Plate 42). Some patching and rebuilding in more modern material is evident. Internally, most of the wall is of similar red brick to that used in the construction of the

south wall (see above). The east side of the wall slopes markedly, the brick courses respecting the slope. There is a wide entrance with a concrete lintel, which appears to have been inserted during a later phase. There is some evidence for a former opening in the form of substantial quoins located approximately 2m to the west.

- 4.5.5 The south elevation of the north wall varies in construction, the section to the east of the entrance being constructed from red hand-made brick with lime mortar (varying in size from 0.24m x 0.12m to 0.11m x 0.8m) which was evidently once rendered. Scars are visible indicating previous lean-to structures were once present. The west part of the wall is of random rubblestone construction with smeared mortar and concrete copings. A doorway with rough quoins allows access.
- 4.5.6 **Structures:** there are surviving structural elements both within and against the walls of the garden (Fig 2). At the north-east external corner of the garden the remains are visible of a former structure which was built into the hill side. It incorporated part of the north boundary wall of the garden and had brick foundations with brick pillars. Little further evidence of this structure remains other than roof scars and part of a rubblestone wall.
- 4.5.7 A more substantial structure (Building **4J**) is located at the north-east corner of the garden where it is built against the external face of the north wall (Plate 43). It is of random rubblestone construction and has three rooms, each with its own separate access (Fig 10). Each room has a braced and ledged door and a small window with reinforced glazing. Rough limestone quoins are present framing each doorway and the corners of the building. The pent roof is of corrugated asbestos. Internally, each room is basic, with concrete floors and roughly-plastered walls (degraded). Some rebuilding and repair with modern brick has been carried out.
- 4.5.8 To the north of the walled garden is a small terraced area which was subject to a topographic survey, the results of which are outlined in *Section 5.1.4*. To the north of the terrace lies a derelict structure (Fig 11; Building **5**) which straddles the northern boundary of the development area (Fig 2). This is constructed from random rubblestone with internal plaster up to approximately 1m height (Plate 44). The interior is divided into concrete stalls and was last used to house livestock (Plate 45). It was probably open at the east side and had a pent roof
- 4.5.9 The interior of the walled garden contains various structures, most of which are obviously of late twentieth-century date and are associated with the last use of the site by NERC. These include two glasshouses, various concrete structures and some pens (Plates 46 and 47). The construction of these, together with two cinder block and grey brick sumps (of unknown purpose), appears to have removed much of the evidence for the original layout of the garden.
- 4.5.10 What does remain of the garden layout is a short section of retaining wall forming the terraced area at the west side of the garden (Fig 2). The wall spans approximately three quarters of the length of the garden. Unfortunately, this

was obscured by thick undergrowth at the time of the investigation, but appears to be constructed from random rubblestone with large limestone coping stones and the remains of wrought iron fencing. There are two sets of steps allowing access to the terrace, one of which forms part of a semi-circular feature (Fig 2). The south end of the garden is laid down to rough grass and no other garden features were discovered, despite an extensive search.

4.6 THE FORMER MILITARY STRUCTURES

4.6.1 **Introduction:** four single-storey military structures located within woodland at the eastern side of the site were recorded as Buildings **6**, **7**, **8** and **9**. All of the buildings, on differing alignments, are cut into the hillside and are constructed upon concrete foundation bases (Fig 2; Plate 48). They are the survivors of a collection of at least 29 such structures, which were originally connected by pathways and steps, now overgrown (see *Section 5.1 Topographic Survey*). It is obvious that the surviving buildings were last used as laboratory rooms and offices (Plate 53). All are of similar construction details and will be discussed individually in the following section, commencing with Building **6**. Figure 12 illustrates a representative cross-section of the buildings.

4.6.2 **Building 6:** this building is the most northerly of the surviving structures and is of brick construction (twin skin) laid in stretcher bond (Plate 49). There are five regular brick projections on each long wall, together with one at each corner, which probably support the roof trusses (Fig 13). The building is rectangular in plan, measures approximately 11.5m x 5.2m, has a pitched asbestos roof, and is painted white. The rainwater goods are a mixture of PCVu and cast iron. There are two entrances in-to this building, both on the east side of the structure (Fig 9) and both have braced and ledged doors. The fenestration consists of 13 small steel-framed casement windows arranged in an *ad hoc* manner with no coherent pattern. There is a brick chimney breast at the north end of the building, which serves an internal flue. A small timber storage box/lean-to is attached to the north end of the west wall.

4.6.3 Internally, the building is divided into six rooms by brick walls, Room **B6-1** being the first room one encounters upon entering the building (Fig 13). All the rooms are of modern appearance and are of small dimensions. The floors are all concrete with vinyl floor covering and the ceilings are all plain plaster. Most of the rooms contain modern worktops and Rooms **B6-3**, **B6-4** and **B6-5** each have a sink. Late twentieth-century light and heating fixtures are evident. There is no evidence for the military use of this building but the internal dividing walls may reflect the original layout. There was no access to the roof space (but see Fig 12).

4.6.4 **Building 7:** this building is similar to Building **6** and is of the same dimensions (Fig 14). The main differences are the asbestos roof covering, which is of a slightly different style to that on Building **6**, and there are fewer brick projections, there being only two on each long wall, together with one at each corner (Plate 51; Fig 14). A single door allows access into the largest of the rooms (Room **B7-1**). There are 11 windows, all of which contain late twentieth-century PCVu double-glazed casement frames. There is a chimney

breast on the south elevation, and a wooden storage box/lean-to is attached to the east elevation.

- 4.6.5 The interior construction details of the building are otherwise identical to that described for Building 6. Internally, there are four rooms divided by single thickness brick walls (Fig 14). All the rooms are of modern appearance and contain modern lighting and heating fixtures. Some of the rooms have worktops and there are two 'Belfast-type' sinks. There is no evidence for the military use of this building. There was no access to the roof space (but see Fig 12).
- 4.6.6 **Building 8:** this structure is externally almost identical to Building 7 (Fig 15), the main difference being the fenestration, which is a mixture of steel and timber casement windows (seven in total). The steel-framed windows are probably contemporary with the construction of the buildings. There are three doorways, all of modern appearance, one of which contains double doors. A cinder block and matchboard 'cupboard' is attached to the north elevation, which contains a dust control unit. There was no access to the roof space.
- 4.6.7 Internally, there are four rooms, all divided by a mixture of brick and plasterboard partition walls. All the rooms are of modern appearance and there is no evidence of the former military use of this building. All the rooms have modern worktops and Room **B8-4** contains a large drying oven.
- 4.6.8 **Building 9:** the building is very similar in appearance to Buildings 7 and 8 and is of identical construction details (Plate 52). There are eight windows, which are all single panes with timber frames. Four doorways allow access to the interior, all of which are of modern appearance. A small timber porch is attached to the south west corner of the building.
- 4.6.9 The building is divided into two separate halves, between which there is no access (Fig 16). There are six rooms, which are all of modern appearance and are divided by a combination of brick and plasterboard partition walls. Some of the internal floors are tiled and some of the dividing walls are tiled up to a height of approximately 1.5m. The remaining walls are plain plastered and the floors are laid down to concrete. The roof trusses are of king post construction, each one resting on the brick projections on the long walls (Fig 12).

5 TOPOGRAPHIC SURVEY RESULTS

5.1 INTRODUCTION

5.1.1 Two areas, that of the former military buildings at the east side of the development area, and the terraced area at the northern end (Fig 2), were surveyed in order to locate and record features which will be affected by the proposed development. The results of the survey are presented on Figure 2 and each area will be discussed in turn, commencing with the former military buildings.

5.1.2 **The Former Military Buildings:** the curving sweep of woodland at the east side of the development area contains evidence in the form of concrete platforms, paths and steps which allude to the former presence of military structures additional to those that presently survive. There are 24 concrete platforms that are all cut into the slope. Most of these are partially-buried or obscured by vegetation and Figure 2 illustrates their projected extents (see also Plates 54 and 55). It was not possible to survey the outline of all of the platforms, but investigation revealed all of them to measure approximately 11m long by 5m wide. The platforms were all constructed from a single concrete pad, although some appear to have additional concrete skirts, which presumably supported the exterior walls of the buildings. There is no evidence to suggest that any of the platforms ever contained buildings, and cartographic records are missing between 1911 and the 1970s (OA North 2006). An extensive search both to the north and south of the area failed to reveal any further platforms.

5.1.3 Other features, such as paths and steps, were recorded during the survey and are recorded on Figure 2. An interesting feature, which appears to be a loading bay, is located at the northern end of the area. It is of part concrete and part stone construction and is probably contemporary with the platforms.

5.1.3 **The Terrace:** this area lies between the northern end of the walled garden and Building 5 (Fig 17). It comprises a slightly sloping terrace area bounded to the west by the steep slope of the wooded bank and to the east by a low revetment wall (Plates 56 and 57). The wall is of random rubblestone construction and follows the contour to the north almost as far as Building 5. It also follows a course to the west towards the base of the slope. At the south-west corner of the wall and located on the terrace is a rectangular concrete foundation of unknown purpose (Plate 58) and a stone 'tank'. No other remains of significance were discovered during the survey.

6 EVALUATION RESULTS

6.1 INTRODUCTION

6.1.1 Six trenches were excavated, ranging in length from 9m through to 12.6m; all were 2m in width (Fig 2). Trenches 1-3 were excavated within the walled garden to the north-west of the main house, and Trenches 4-6 to the immediate north and east. The following section provides a concise description of each trench. Detailed descriptions of the contexts referred to can be found in *Appendix 3*.

6.2 RESULTS

6.2.1 **Trench 1:** located in the walled garden, Trench 1 was aligned north-east/south-west, and measured 9m in length, 2m in width and an average depth of 0.5m (Plate 59). The recorded stratigraphy within the trench comprised topsoil **108**, and disturbed natural geology, **102**. Towards the south-western end of the trench ran a modern north/south-aligned linear feature, **103** (Fig 18). This was a continuation of a timber-lined trench, extant within the garden immediately to the south. It had been backfilled with redeposited topsoil with high quantities of demolition rubble and garden refuse throughout, **107**. To the east of feature **103** was north/south-aligned wall **104**, constructed of machine-made red bricks, in a stretcher bond to the east, and header bond to the west. Wall **104** had been heavily truncated by subsequent groundworks within the garden. To the east was the eastward return of wall **104**, wall **110**, which was of near identical construction to wall **104**, but more heavily disturbed. Abutting wall **110** to the north was rubble deposit **109**, which contained significant quantities of glass, indicating that it was the result of the demolition of a glass house. All identified features, **103**, **104**, **110**, were sealed by recently redeposited topsoil.

6.2.2 **Trench 2:** Trench 2, was situated in the walled garden, orientated south-east/north-west, and measured 10.6m in length, 2m in width and a maximum of 1m in depth. One small area to the south-east of the trench was unexcavated due to a plethora of electric cables. The observed stratigraphy comprised topsoil **122**, and natural geology **123**. The whole area had been severely truncated by groundworks, and the natural geology had also been disturbed. Towards the north-western end of the trench, a pit (**125**) was identified projecting 1m from the northern baulk. It contained redeposited topsoil combined with significant quantities of modern demolition rubble and garden refuse. No features of archaeological interest were identified.

6.2.3 **Trench 3:** was aligned east/west, and was located on the raised terrace of the walled garden. It measured 11.2m in length, 2m in width and was excavated to a maximum depth of 0.75m. The observed stratigraphy comprised topsoil **121**, subsoil **120** and natural geology **119**. The topsoil, **121**, had been slightly disturbed, but not to the same level as over the remainder of the walled garden. No features of archaeological significance were identified. Occasional

fragments of modern pottery were identified within the topsoil, **121**, but they were not retained.

- 6.2.4 **Trench 4:** was located to the immediate north of the main house, and was orientated east/west. It measured 9m in length, 2m in width and reached a maximum depth of 1m. The trench comprised redeposited topsoil **100**, and heavily disturbed subsoil **101**. It was likely that the subsoil, **101**, was also redeposited, as it was very mixed, with brick and other demolition rubble. Three drains and service trenches were identified cutting north/south across the trench, while an electric cable was observed running north-west/south-east across the eastern end of the trench. Due to services the trench could not be extended.
- 6.2.5 **Trench 5:** was located to the east of the main house, and was aligned north-east/south-west. It measured 10.8m in length, 2m in width and was excavated to a maximum depth of 1m. Towards the north-eastern end of the trench, the stratigraphy comprised disturbed topsoil **124**, which sealed subsoil **114**, which overlaid natural geology **115**. Towards the south-western end, topsoil, **124**, and subsoil, **114**, were truncated by the construction of the modern tarmac road, **111**. This consisted of a foundation deposit **113**, which was overlain by levelling hardcore layer **112**, itself sealed by the tarmac road surface **111**. No features or finds of archaeological significance were observed.
- 6.2.6 **Trench 6:** was aligned north/south and located to the south-east of the main house. It measured 12.6m in length, 2m in width and was excavated to a maximum depth of 0.86m. The stratigraphy comprised topsoil **116**, which sealed subsoil **117**, which in turn overlaid natural geology **118**. Towards the northern end of the trench two east/west concrete pipes truncated all three deposits, while a service trench ran north-east/south-west across the centre, and that area could not be excavated below the base of topsoil, **116**. In the south-west corner of the trench was a modern soak away, which contained >70% small sub-angular chippings and was overlain by a sheet of plastic. No features or finds of archaeological significance were observed.

7 DISCUSSION

7.1 INTRODUCTION

- 7.1.1 Each facet of the archaeological investigations at Merlewood will be discussed below followed by overall conclusions.

7.2 BUILDING INVESTIGATION

- 7.2.1 **Building 1:** cartographic investigation has revealed that a structure has stood on this site with an identical footprint since at least 1891 (OA North 2006). This is probably the glass house shown on the illustration of the rear of the house prior to the erection of the tower (Beckett 2006). The building investigation has revealed that the south canted part of the current building comprising Rooms **B1-3** to **10** is of late nineteenth-century appearance and was possibly erected following the 1881 construction phase of the tower. The south part and internal timber roof structure of Room **B1-3** to **9** is of Edwardian appearance and may date to the early twentieth century. Earlier fabric is also present in the northern parts of the building, specifically Rooms **B1-1**, **B1-3**, **B1-4**, **B1-5** and **B1-6**. The fenestration in Rooms **B1-4** and **B1-5** is possibly of nineteenth-century date. Obvious remodelling (such as the insertion of the windows and rebuilding of Room **B1-2**) of the west side of this building was carried out in the mid-twentieth century but the essential structure of the building is of late nineteenth- and early twentieth-century date.
- 7.2.2 **Building 2:** this structure appears on the 1891 Ordnance Survey map and whilst elements may date to the original 1853 construction of the house, there is limited evidence to support this. It shares part of its roof with Building **1** and may be contemporary with the northern part of that structure. The projecting eaves supported by cast iron columns are interesting and may also be of nineteenth-century date. There have been some clear modifications to this building and the flat-roofed extension to the rear (comprising Rooms **B2-5**, **B2-6**, and **B2-7** is obviously of twentieth-century date.
- 7.2.3 The original building was likely to have comprised Rooms **B2-1**, **B2-2**, **B2-3**, **B2-4**, **B2-8**, **B2-9** and **B2-10**. There is evidence to suggest that Rooms **B2-1** and **B2-2**, and **B2-3** and **B2-4** were two larger spaces served by a central chimney flue. The rooms were probably divided in the late twentieth century. The 1873 letting particulars describe the stable yard including ‘stalls and boxes for seven horses; hay and straw lofts, good coach-houses, and other offices, and Coachman's House’ (Beckett 2006). This building may have been used for offices and/or accommodation.
- 7.2.4 **Building 3:** this building has clearly been modified, the most obvious evidence for this being the blocked wagon door on the main elevation. This building appears in its current form on the 1891 Ordnance Survey map (*ibid*) and the footprint (including the ‘Growth Rooms’) is unaltered. Most of the modification is internal and it is apparent that most of the rooms on both floors

were created in the mid- to late twentieth century. Originally, the ground floor was probably used as a coach house, which may have comprised three large rooms. The first floor may have been utilised as living accommodation although no trace of the original staircase survives. It is probable that this building was constructed at the same time as the house in 1853.

7.2.5 **The Walled Garden:** this has seen much alteration, probably carried out in the mid- to late twentieth century. The only surviving traces of the original layout of are the boundary walls, internal terrace wall and semi-circular structure labelled as 'Fountain' on the 1891 Ordnance Survey map. The map also illustrates various glasshouses and pathways, none of which survive. Brick walls located in Trench 1 of the evaluation (Section 7.4.2) are probably the remains of these glasshouse foundation walls. The present layout of the garden walls is identical to that illustrated on the 1891 map, as is the building at the north-east corner of the garden which also appears on a nineteenth-century painting of Merlewood (Beckett 2006). No evidence exists of the pathways illustrated on the 1891 map.

7.2.6 **The Former Military Buildings:** the four surviving military buildings represent a fraction of the former complex that existed at Merlewood. Unfortunately, little evidence remains of the original internal layout of these structures, which have been modernised and converted into laboratories and offices. As already outlined, 24 other buildings, presumably of similar appearance, are evidenced by concrete foundation slabs, and further examples may lie undiscovered.

7.2.7 The surviving buildings are clearly permanent structures unlike much of the military hutments and structures erected during WWII. It is possible that the other vanished structures were of the so called 'Half-Brick Hut' type which were temporary brick structures half a brick thick, with roof trusses supported upon piers (Francis 1996). Indeed, they may well have been timber hutments which were simply dismantled after the war. The buildings that survived may have been modified in order to perpetuate their use or they may have been constructed from brick to provide more secure storage.

7.3 EVALUATION

7.3.1 Only three trenches contained features or deposits of some historical interest. Trenches 4 and 6 contained only modern services which cut through the already disturbed topsoils and subsoils, whilst the topsoil, subsoil, and natural geology revealed in Trench 3 are likely to represent pre-nineteenth-century soil horizons that have managed to avoid landscaping and later disturbance.

7.3.2 Trench 1 contained two modern redbrick walls, **104** and **110**, which most likely related to a former glasshouse or garden feature. The Ordnance Survey of 1891 illustrates a glasshouse on this spot; the two walls observed may be the north-east corner of the structure. The linear feature that runs across the trench, **103**, was a continuation of the modern timber-lined trench which remains extant to the south. Containing rubber tubes, this feature was probably

related to activities of the research station. The remaining dump of material, **109**, was most likely garden refuse and demolition material. None of the material seems to pre-date the mid-twentieth century. To the south of Trench 1, Trench 2 also exhibited extensive modern disturbance. Much of the trench comprised a large pit containing modern garden refuse, and was very similar to the material identified in **103** (Trench 1). Trench 5, situated to the east of the main house, had two services along each end of the trench. Although no actual features were observed across the majority of the trench, the south-west end clipped the estate road, **111**. This was most likely established during the mid-twentieth century, when the estate was either a WWII training centre or the later nature research facility.

7.4 IMPACT ASSESSMENT

- 7.4.1 Assessing all the trenches, and in consideration of the local topography, it seems likely that most of the area has been heavily truncated, probably through landscaping and terracing when the original house, stables and gardens were established in the 1850s. With the exception of the relatively undisturbed stratigraphy within Trench 3, the high levels of disturbed and redeposited subsoils observed in the remaining trenches suggests that any pre-nineteenth-century archaeological remains that may have once existed on the site have been probably truncated by former groundworks. Similarly, the amount of later negative features within the walled garden would imply that any original nineteenth-century garden features, with the exception of the internal terrace, are also likely to have been disturbed or truncated.
- 7.4.2 Obviously, the development scheme will have a most substantial impact upon the built remains outside of the main house. This has, however, been mitigated by the present scheme of historical building recording and it is unlikely that further, more detailed, investigation of those buildings scheduled for demolition will shed more light on their origins, use and construction details. It is possible that more platforms pertaining to WWII structures, together with interconnecting paths, may be revealed by future works on the site. However, understanding of these features is limited by the meagre documentary evidence for the contemporary use of the site.

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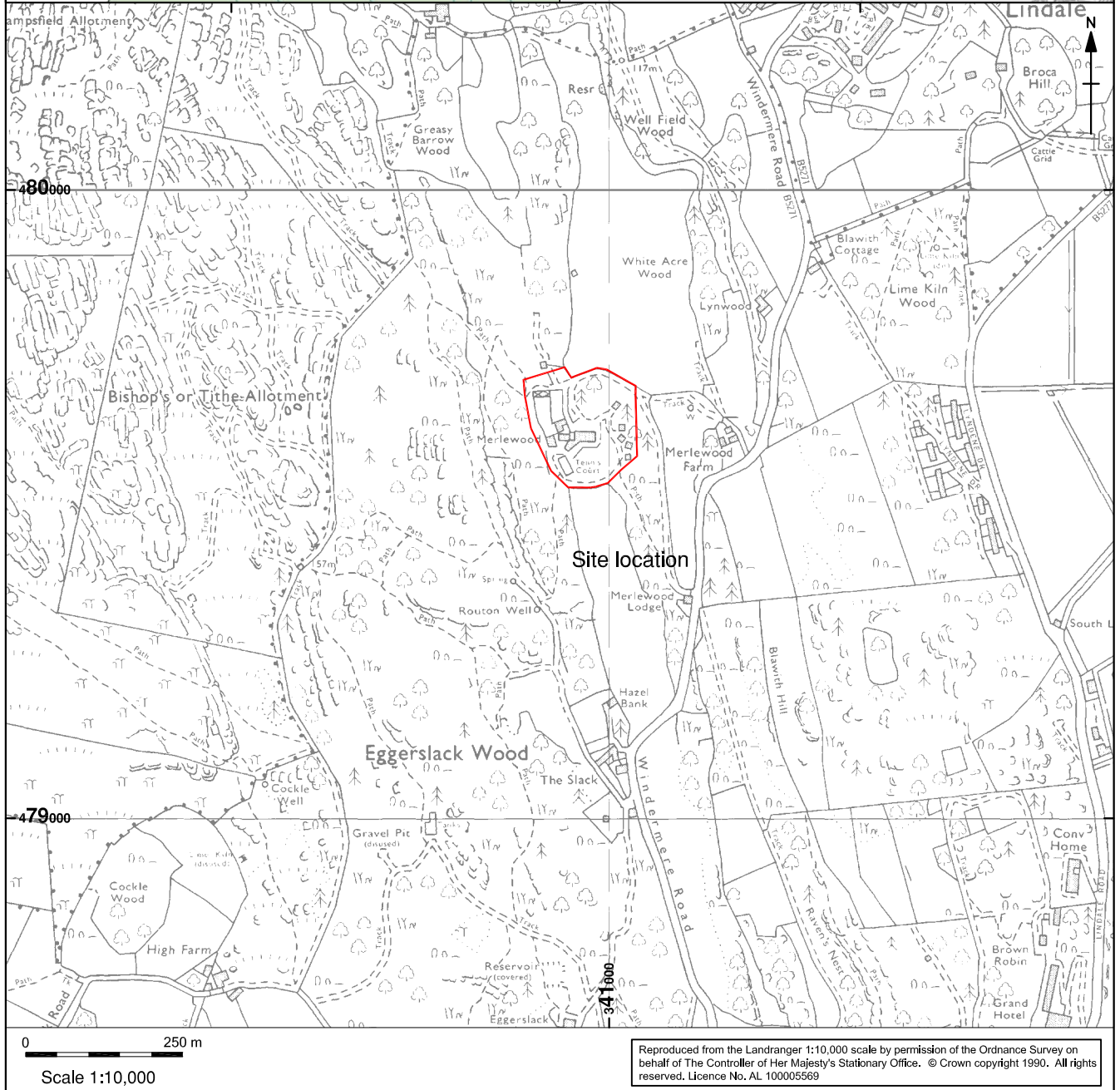
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- Plate 42: General view of the north wall of the walled garden, with lean-to Building **4J** to the left
- Plate 43: Building **4J** at the north east corner of the walled garden
- Plate 44: Derelict structure, Building **5**, at the northern limit of the development area
- Plate 45: Interior of the derelict structure, Building **5**
- Plate 46: General view of the south interior of the walled garden
- Plate 47: General view of the north interior of the walled garden
- Plate 48: General view of Buildings **6** and **7**
- Plate 49: South-facing elevation of Building **6**
- Plate 50: West elevation of Building **6**
- Plate 51: West elevation of Building **7**
- Plate 52: View of Building **9**
- Plate 53: Example of an internal room within the military structures
- Plate 54: Example of a concrete foundation platform
- Plate 55: Further example of a concrete foundation platform, Building **8** in the background
- Plate 56: Revetment wall of the terrace looking north

Plate 57: Revetment wall of the terrace looking north

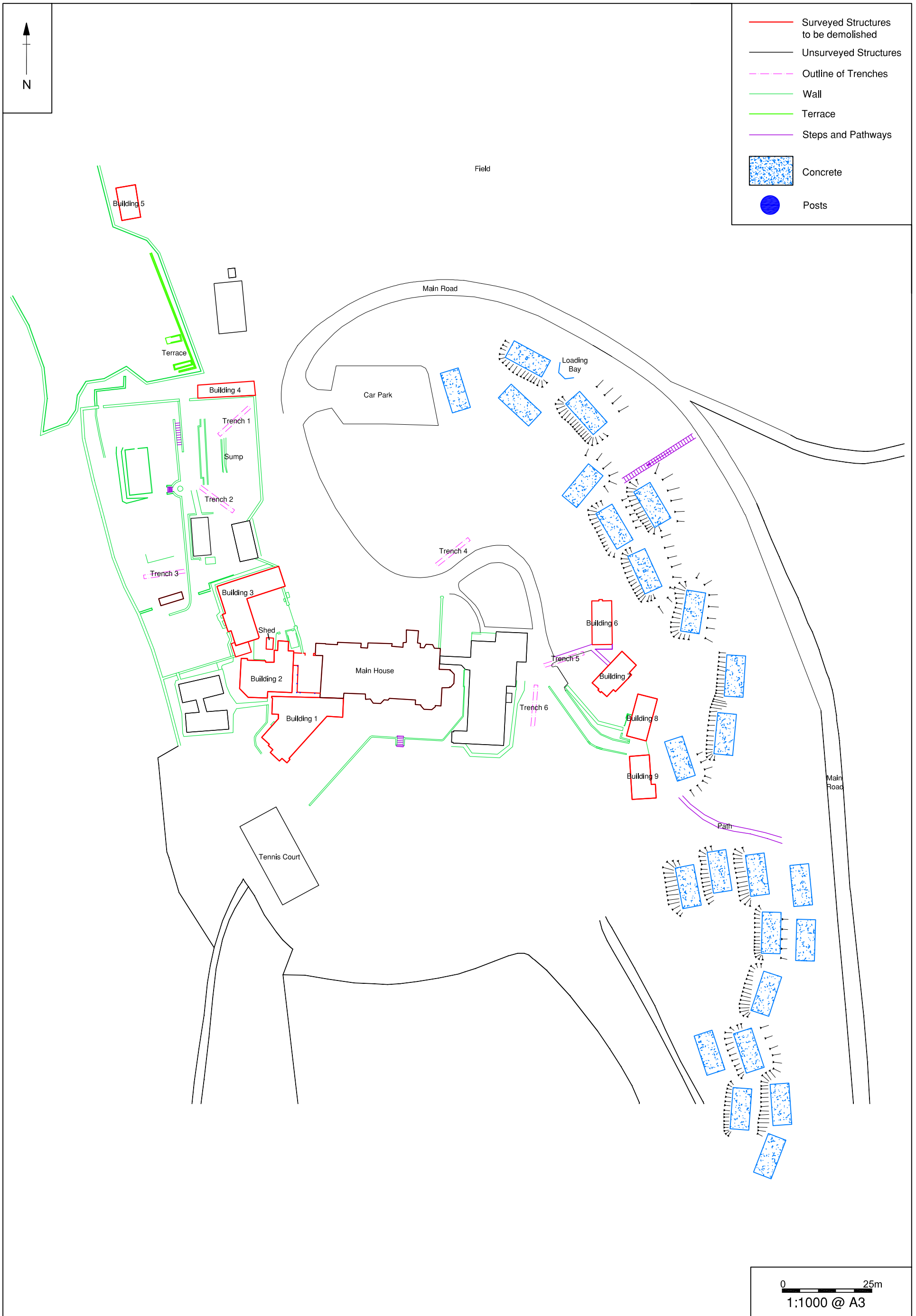
Plate 58: Rectangular concrete foundation on the terrace

Plate 59: Trench 1, looking south-west



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Figure 1: Site Location



- Surveyed Structures to be demolished
- Unsurveyed Structures
- - - Outline of Trenches
- Wall
- Terrace
- Steps and Pathways
- Concrete
- Posts

Figure 2: Merlewood Site Plan

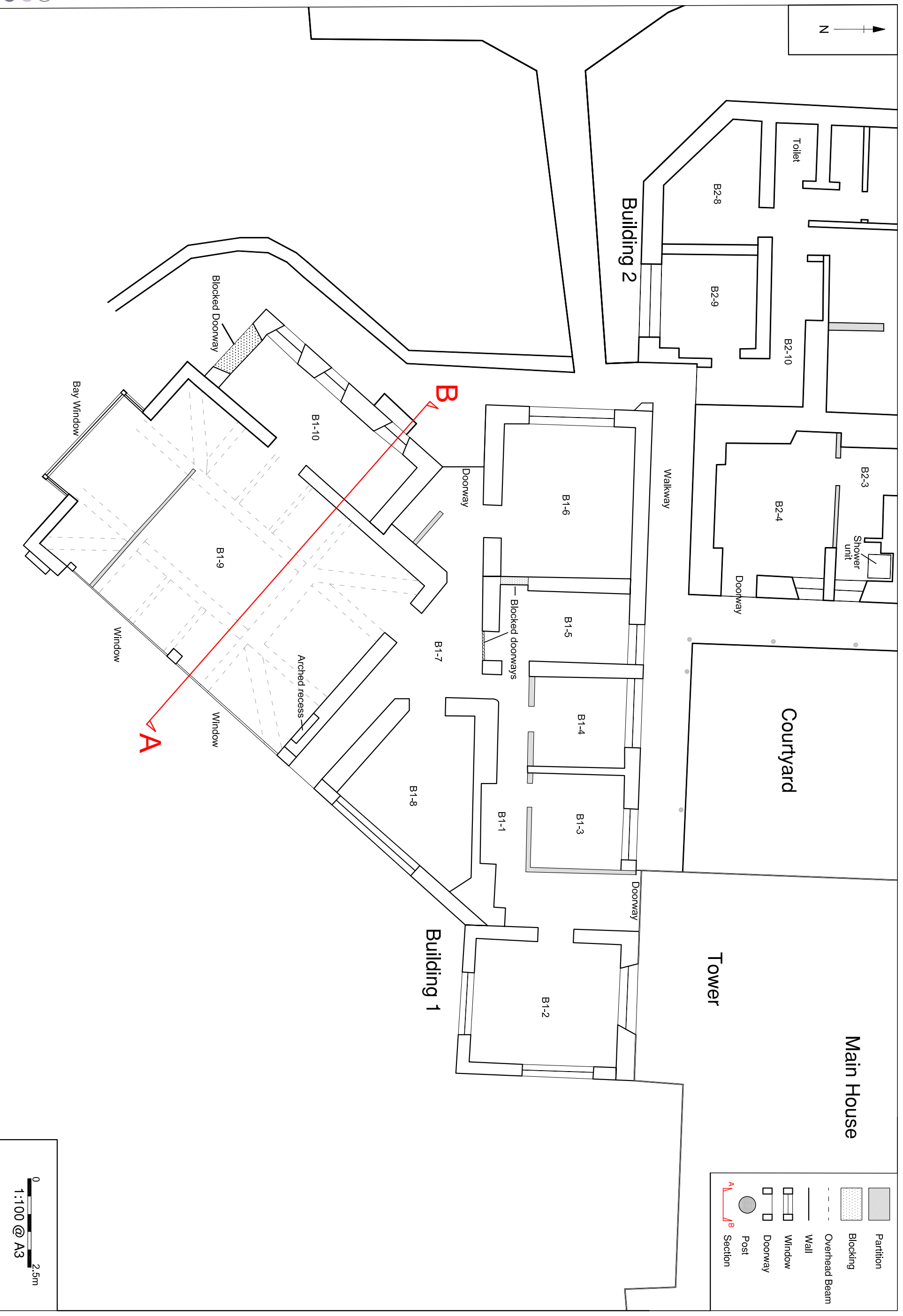


Figure 3: Building 1 Floor Plan

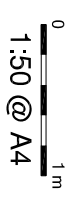
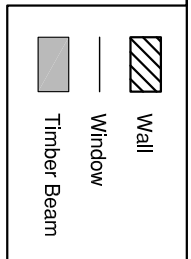
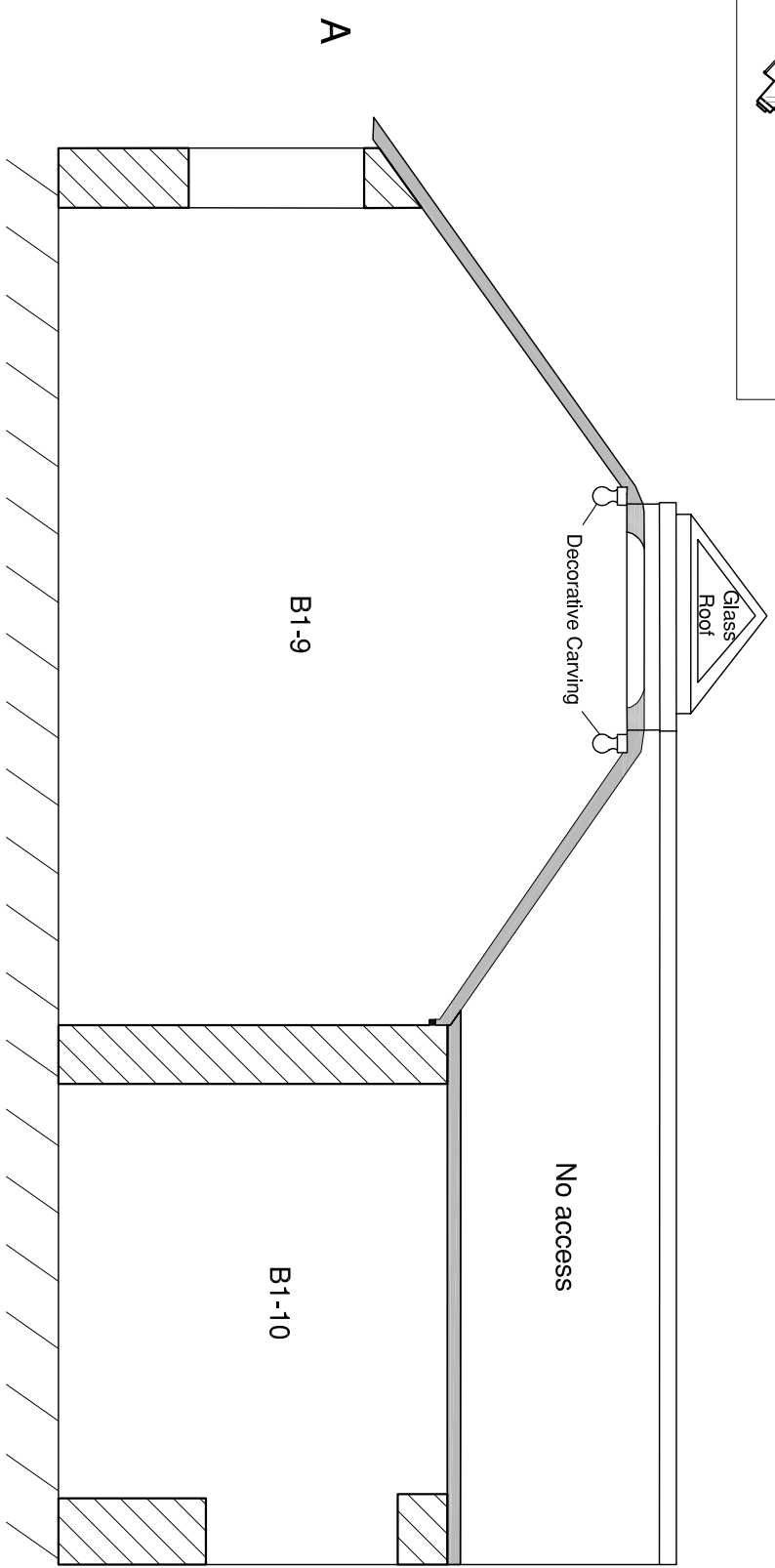
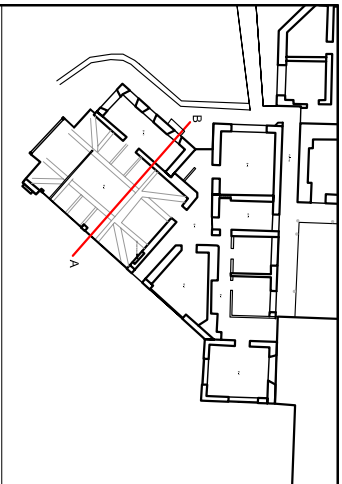


Figure 4: North-Facing Section through Building 1

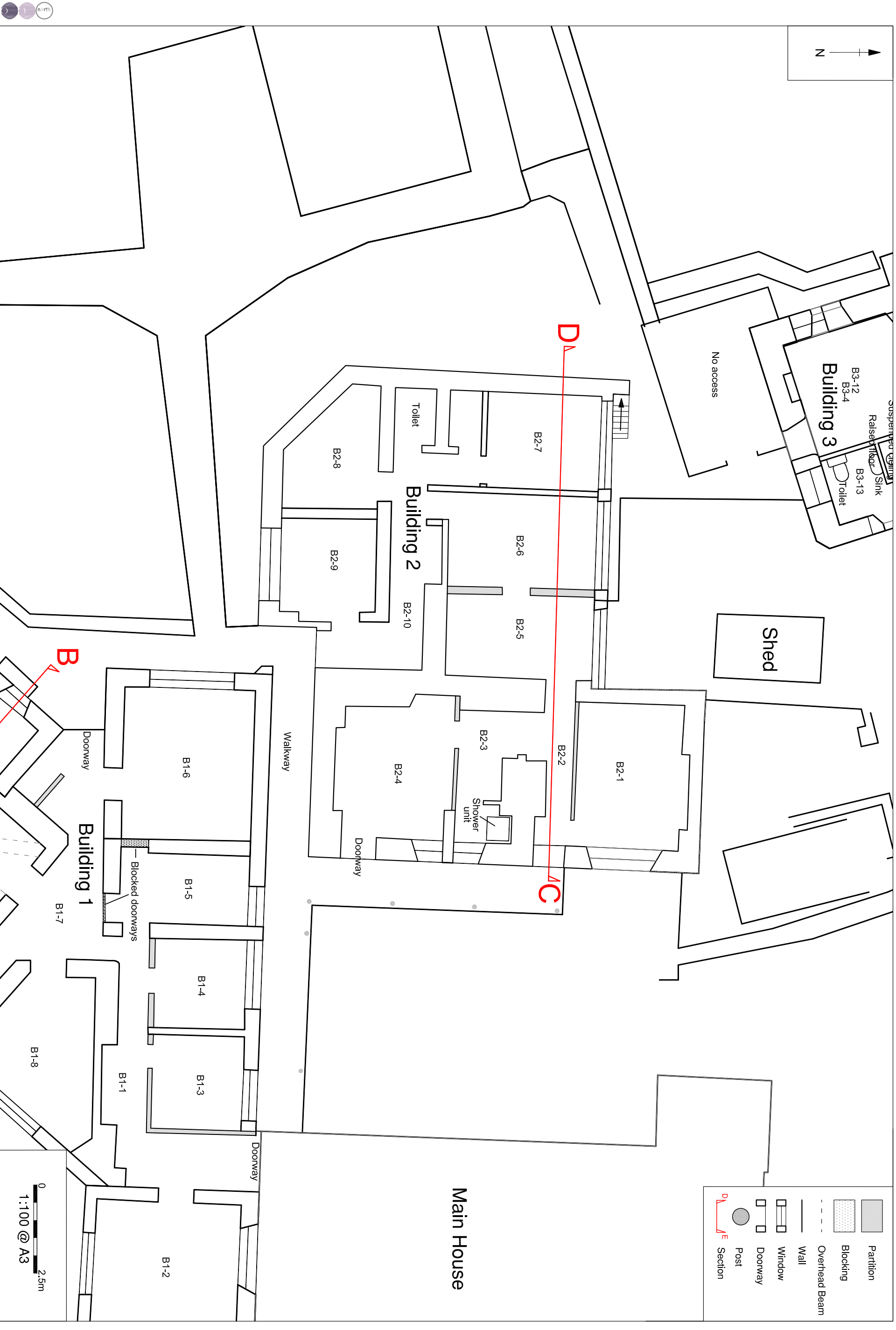


Figure 5: Building 2 Floor Plan

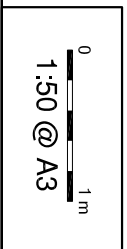
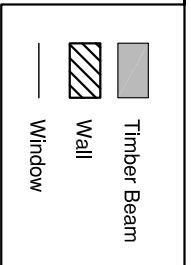
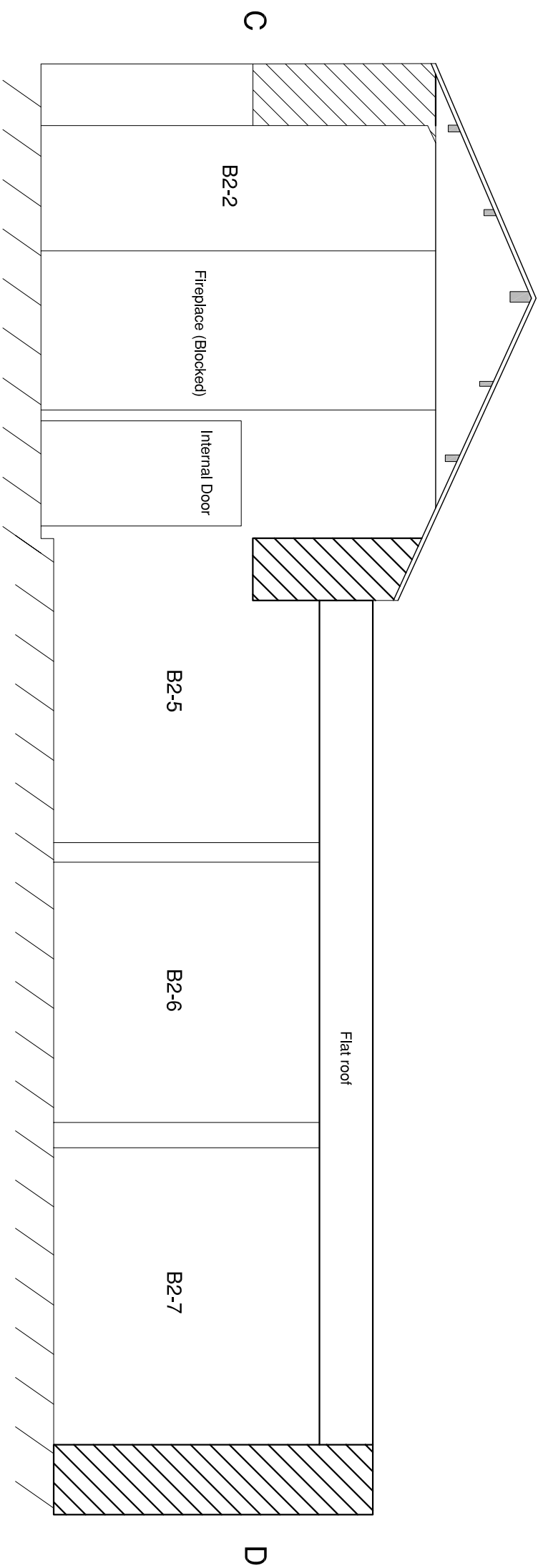
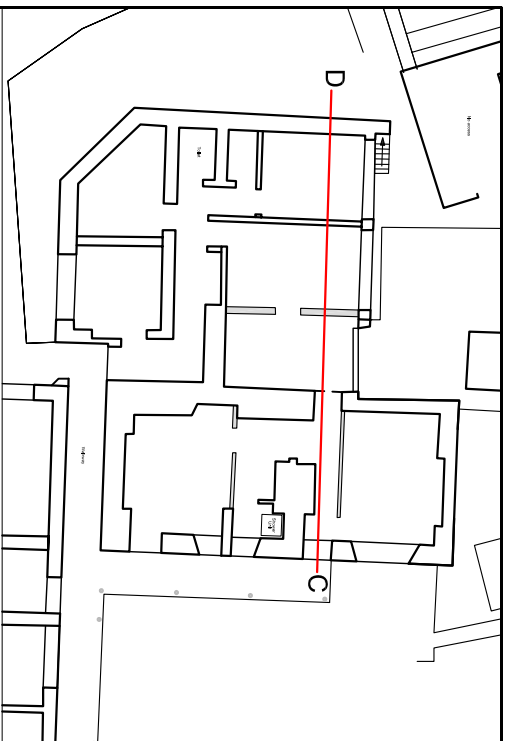


Figure 6: North-Facing Section through Building 2

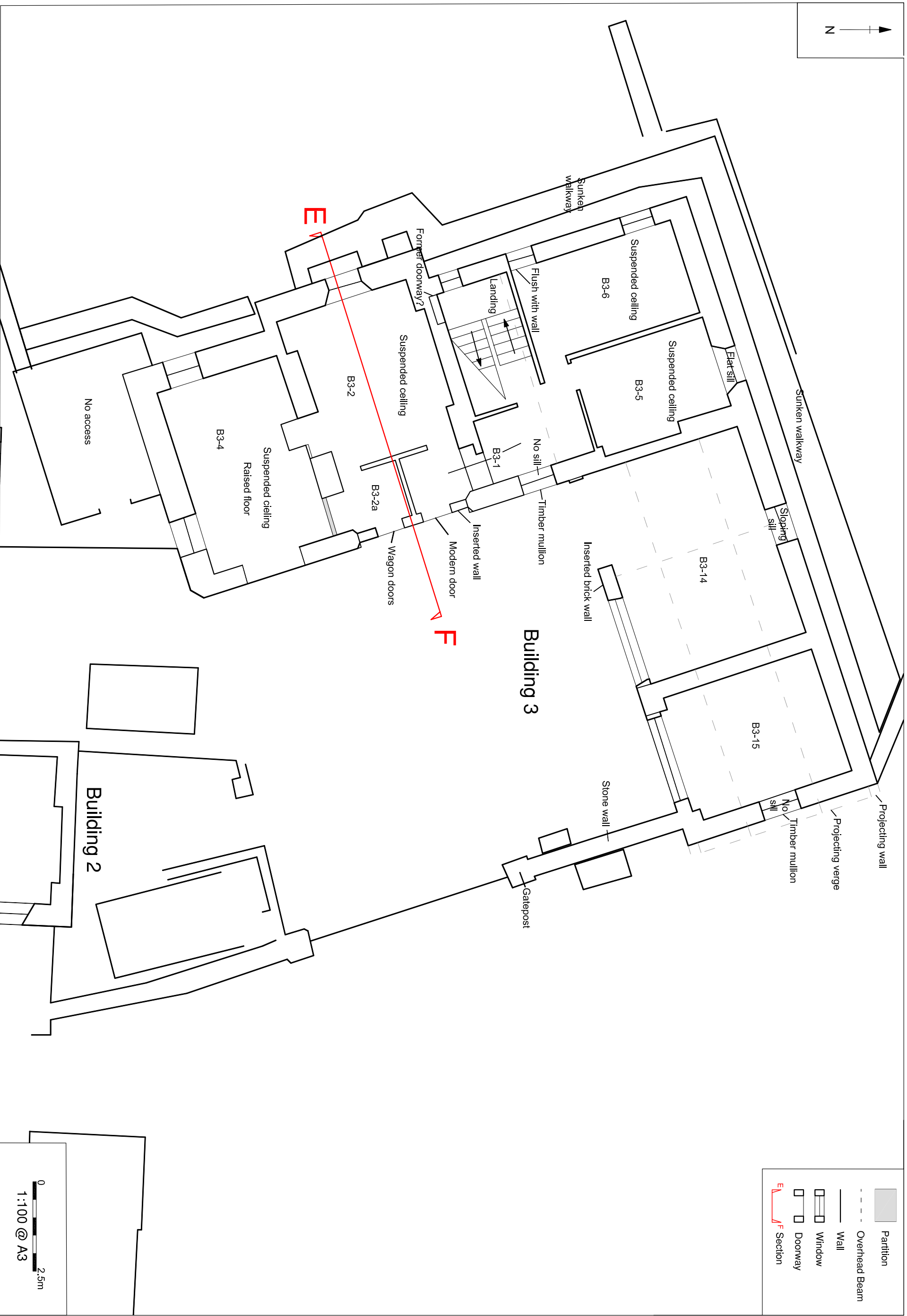


Figure 7: Building 3 Ground Floor Plan

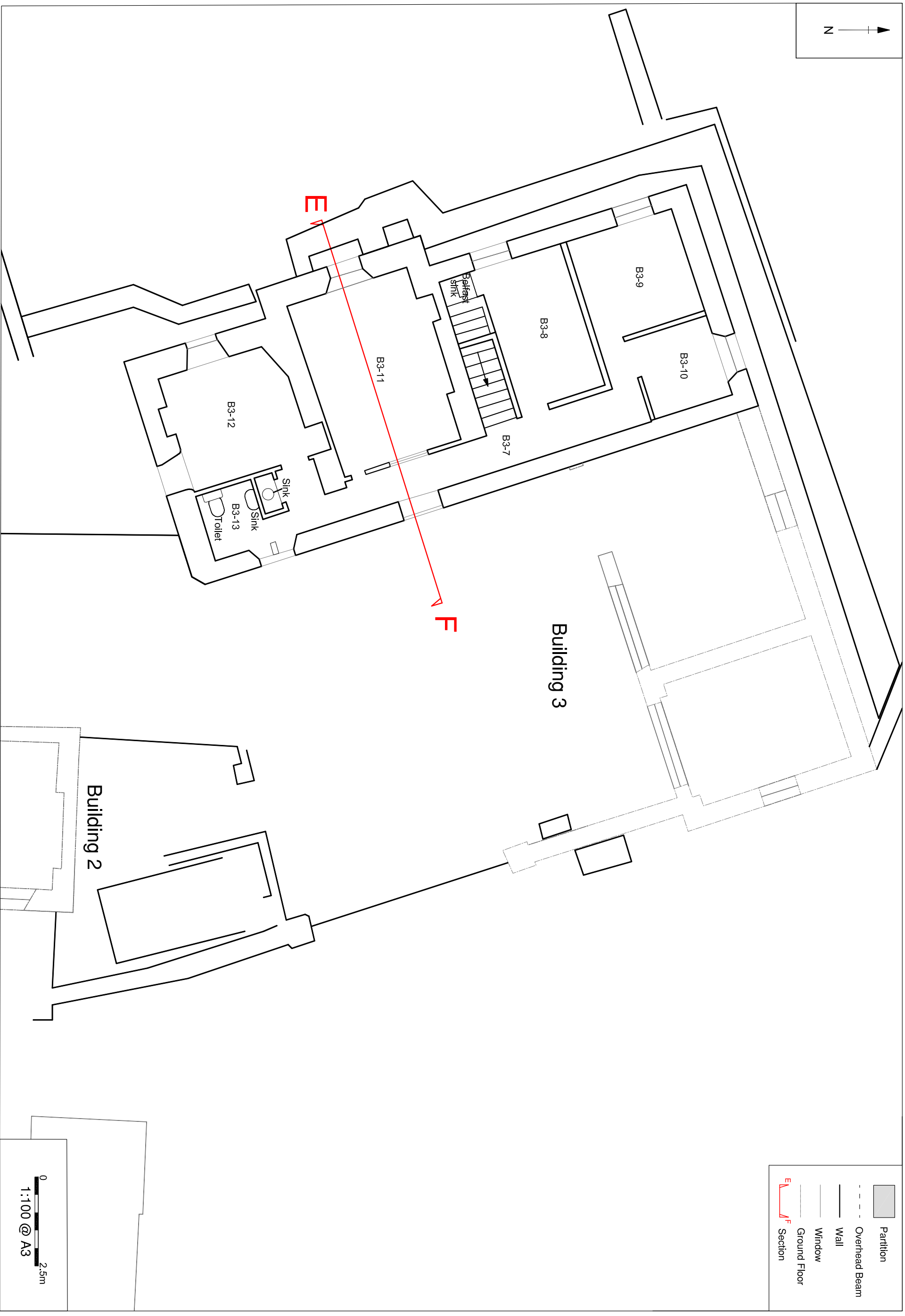


Figure 8: Building 3 First Floor Plan

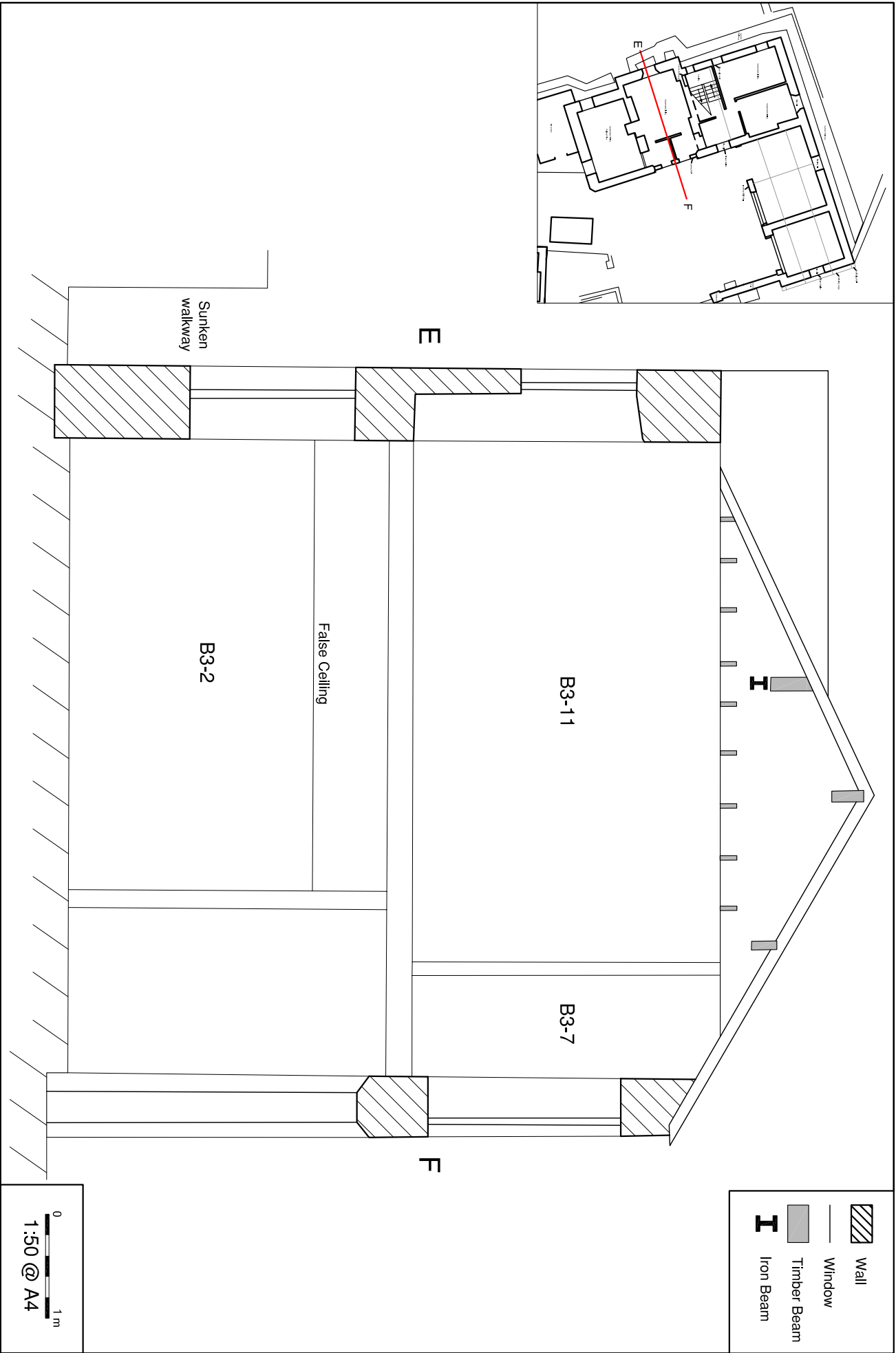
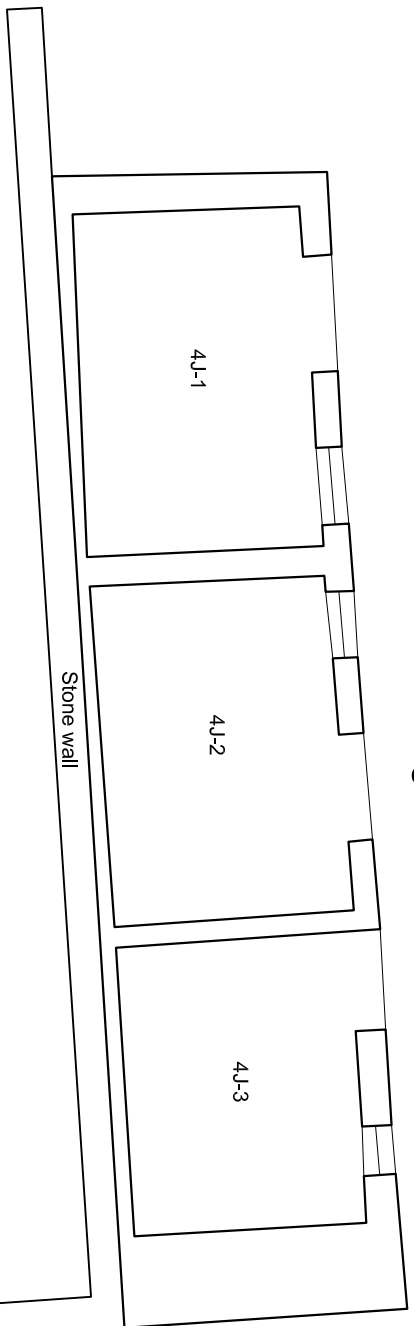


Figure 9: North-Facing Section through Building 3



N

Building 4J



Stone wall

Walled garden

	Wall
	Window
	Doorway

0 2.5m
1:100 @ A4

Figure 10: Building 4 Floor Plan

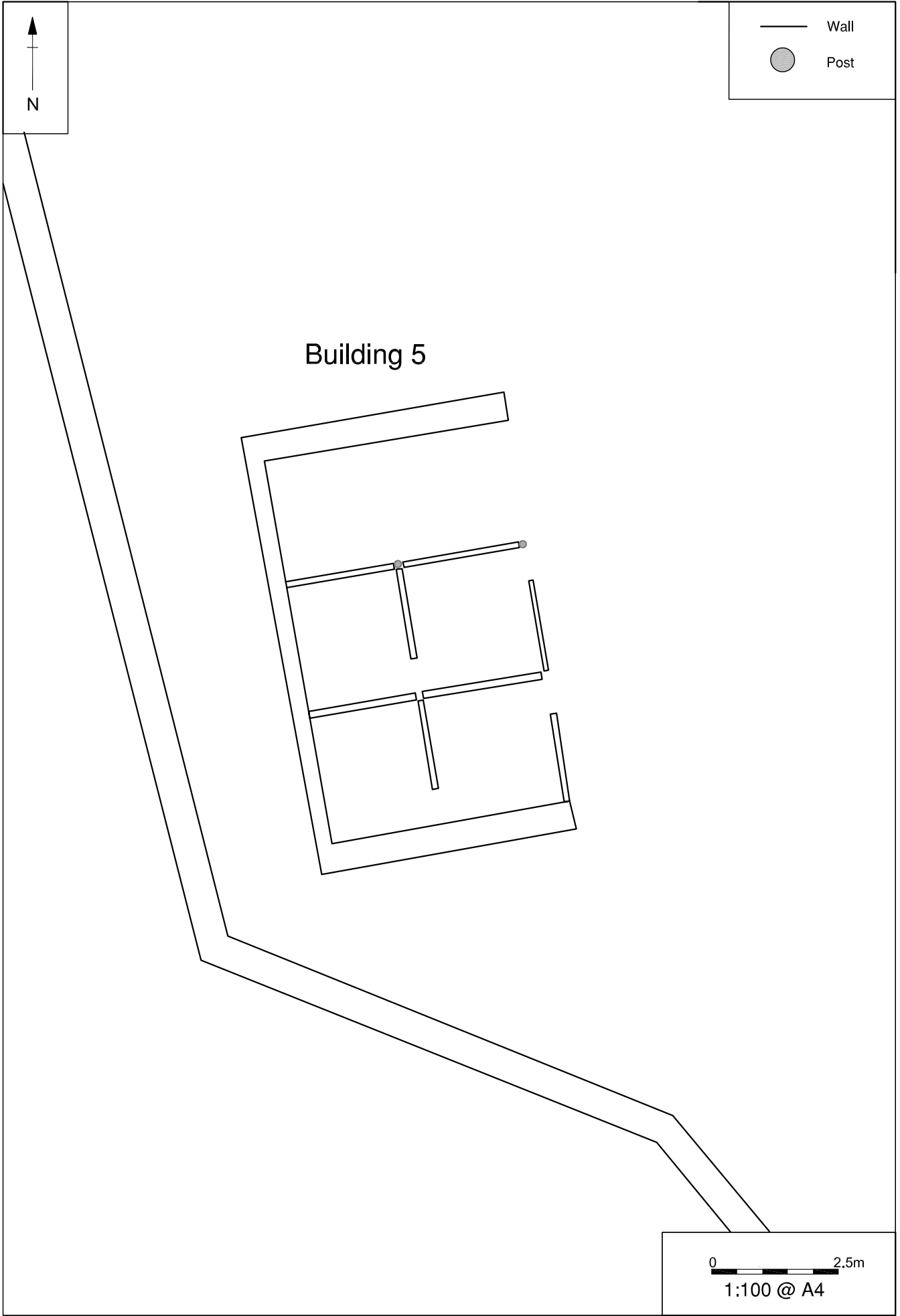


Figure 11: Building 5 Floor Plan

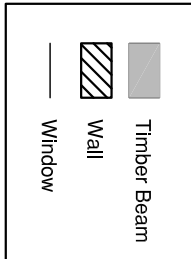
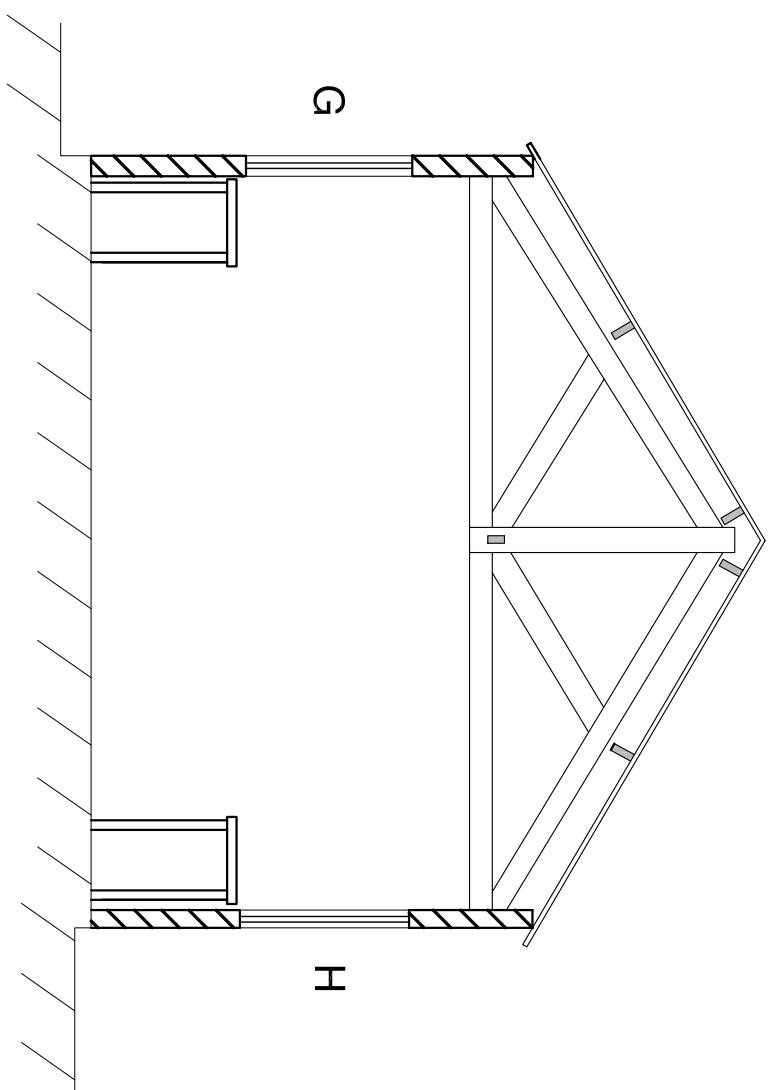
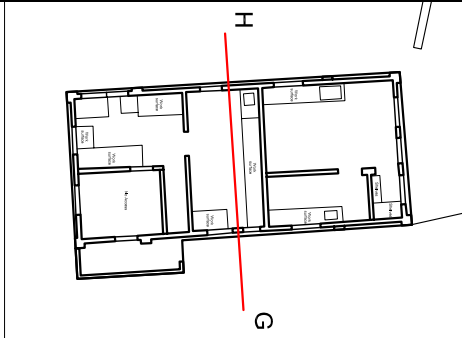


Figure 12: North-Facing Section through Building 9

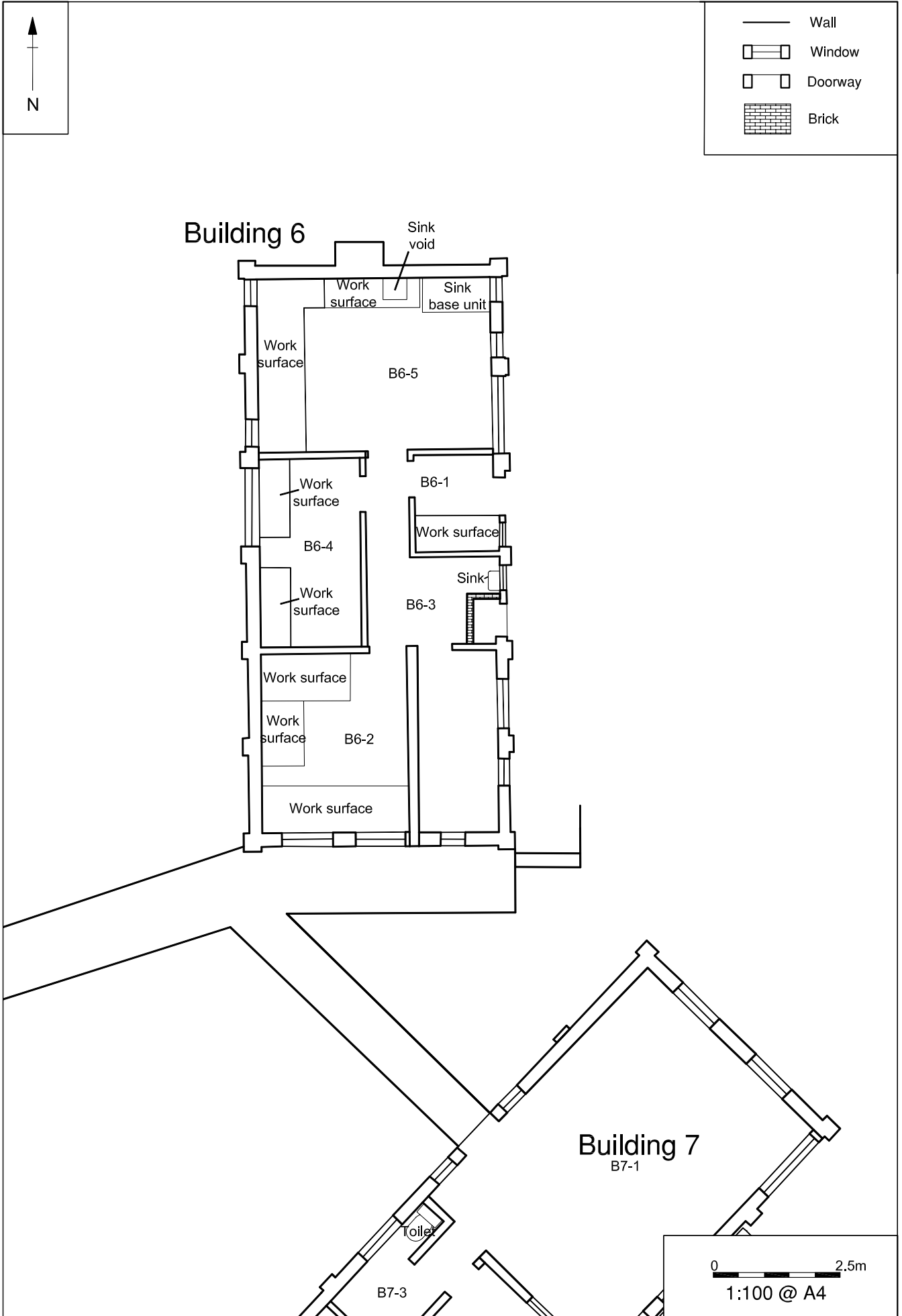


Figure 13: Building 6 Floor Plan

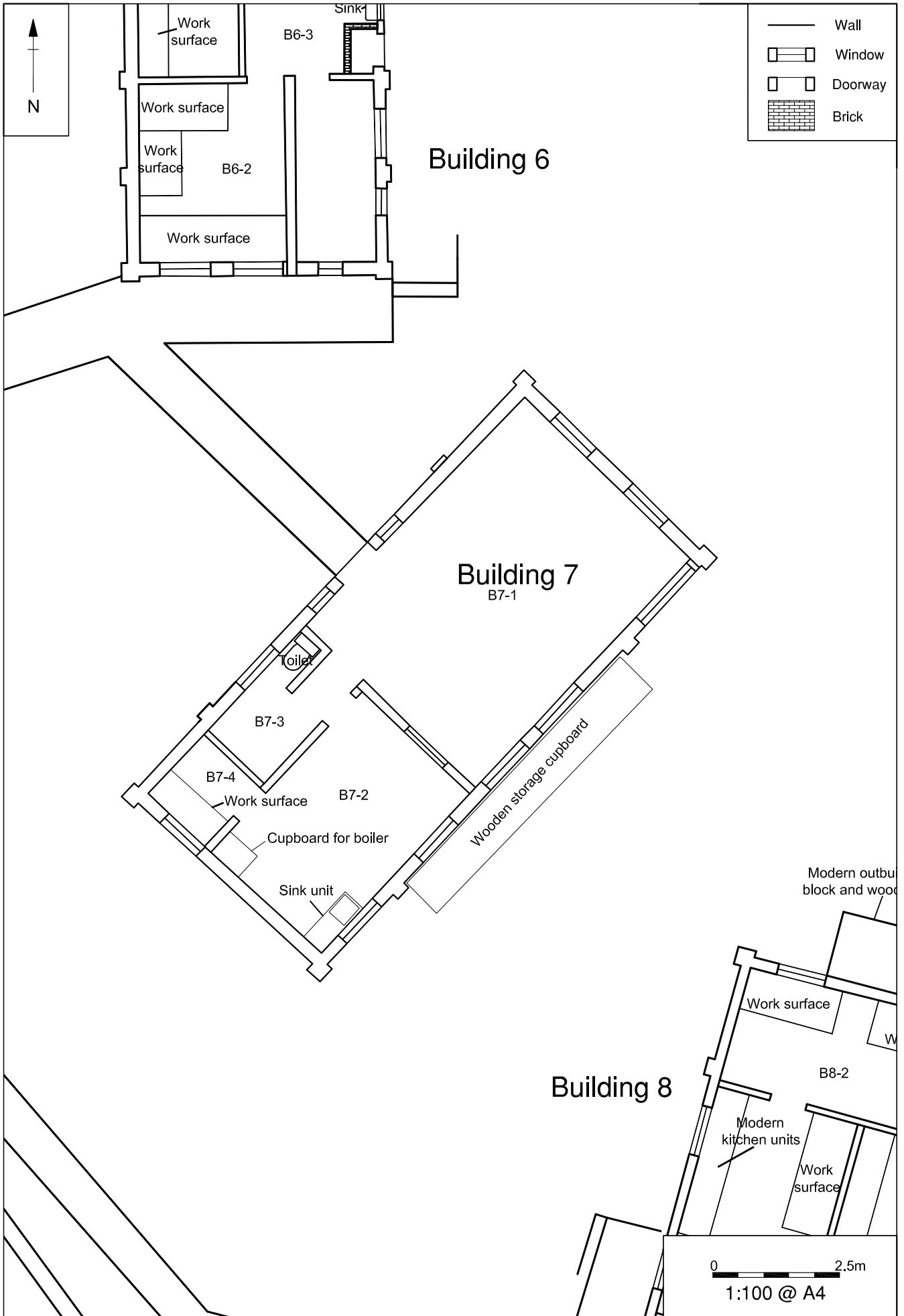


Figure 14: Building 7 Floor Plan

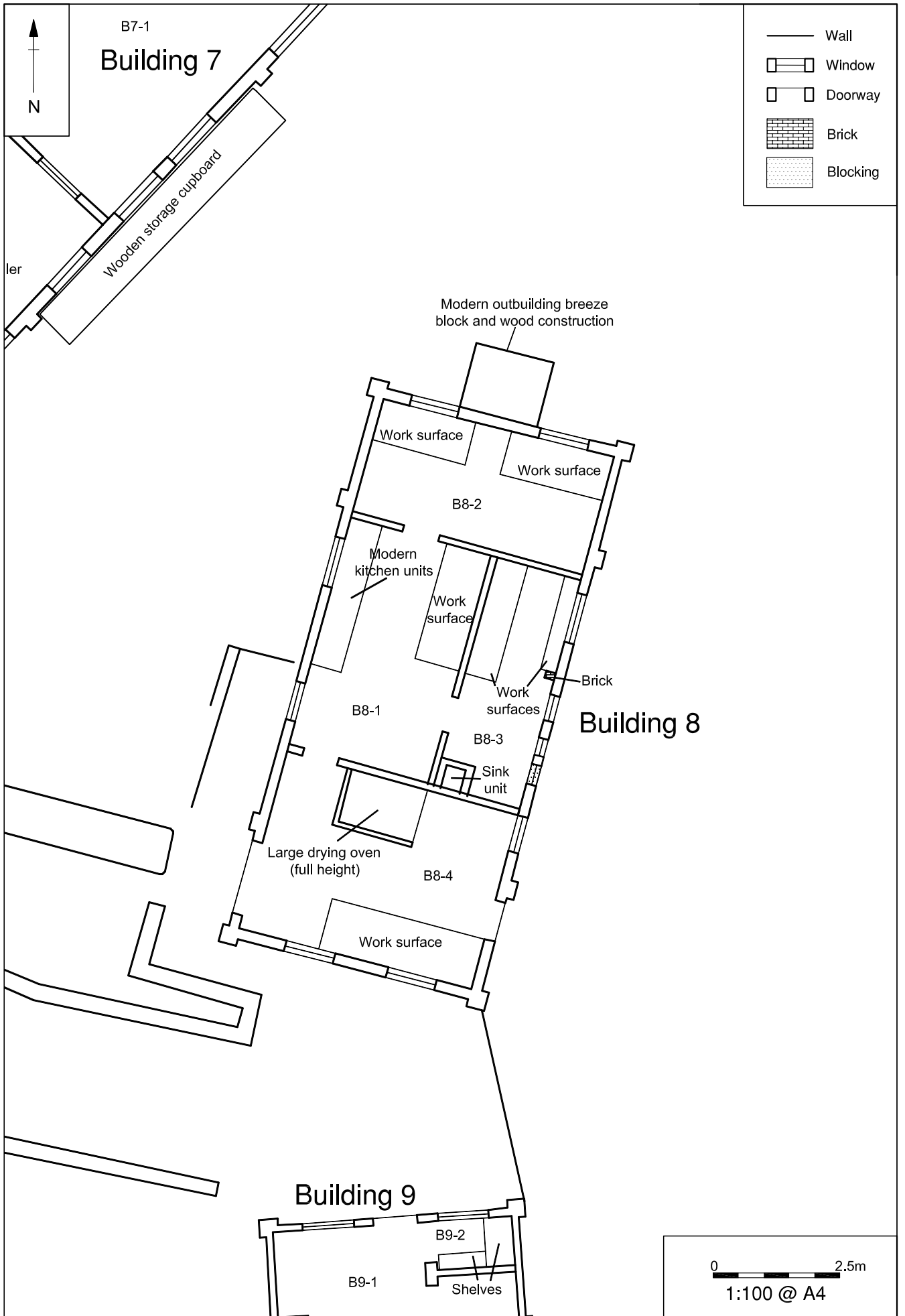


Figure 15: Building 8 Floor Plan

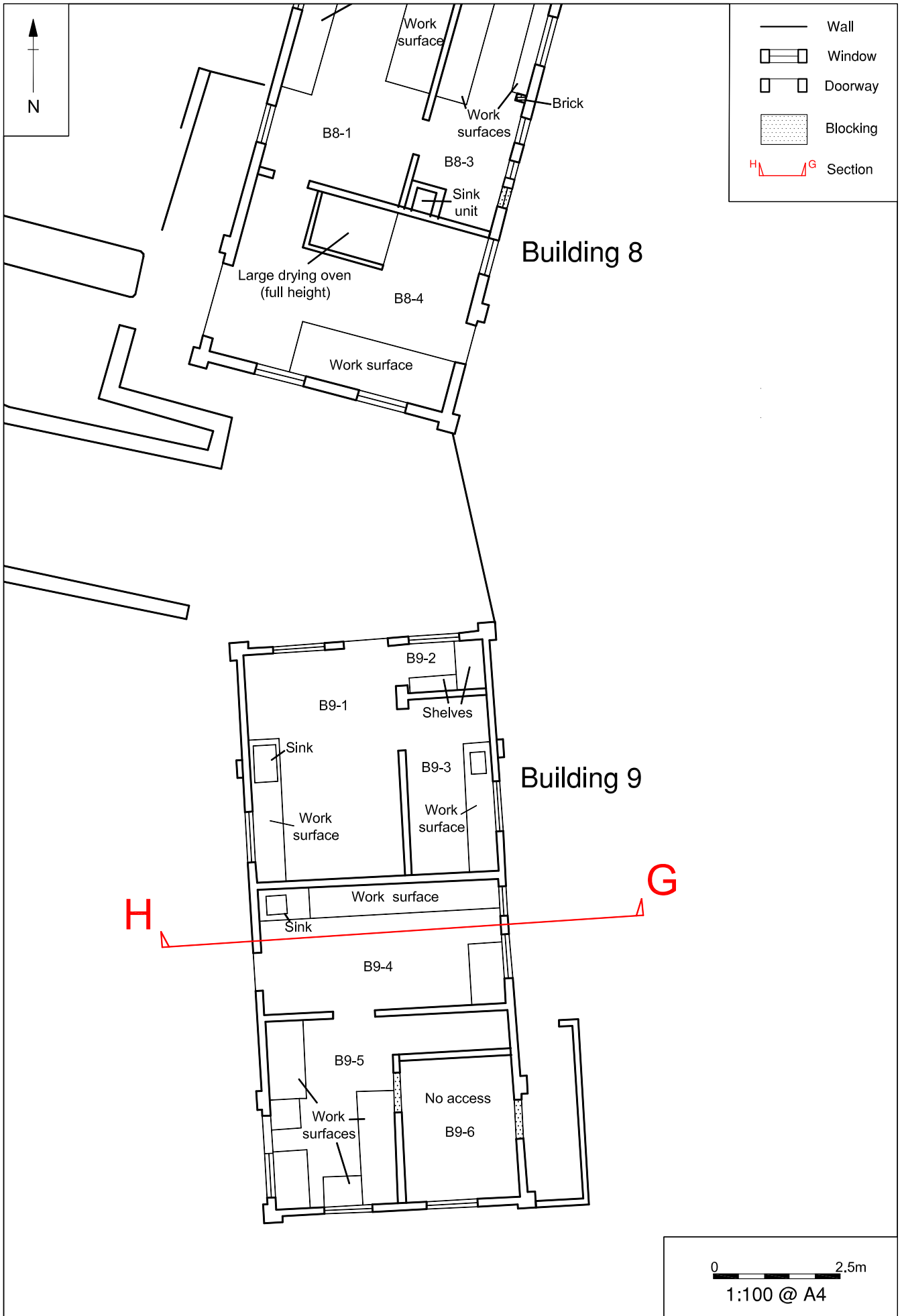


Figure 16: Building 9 Floor Plan

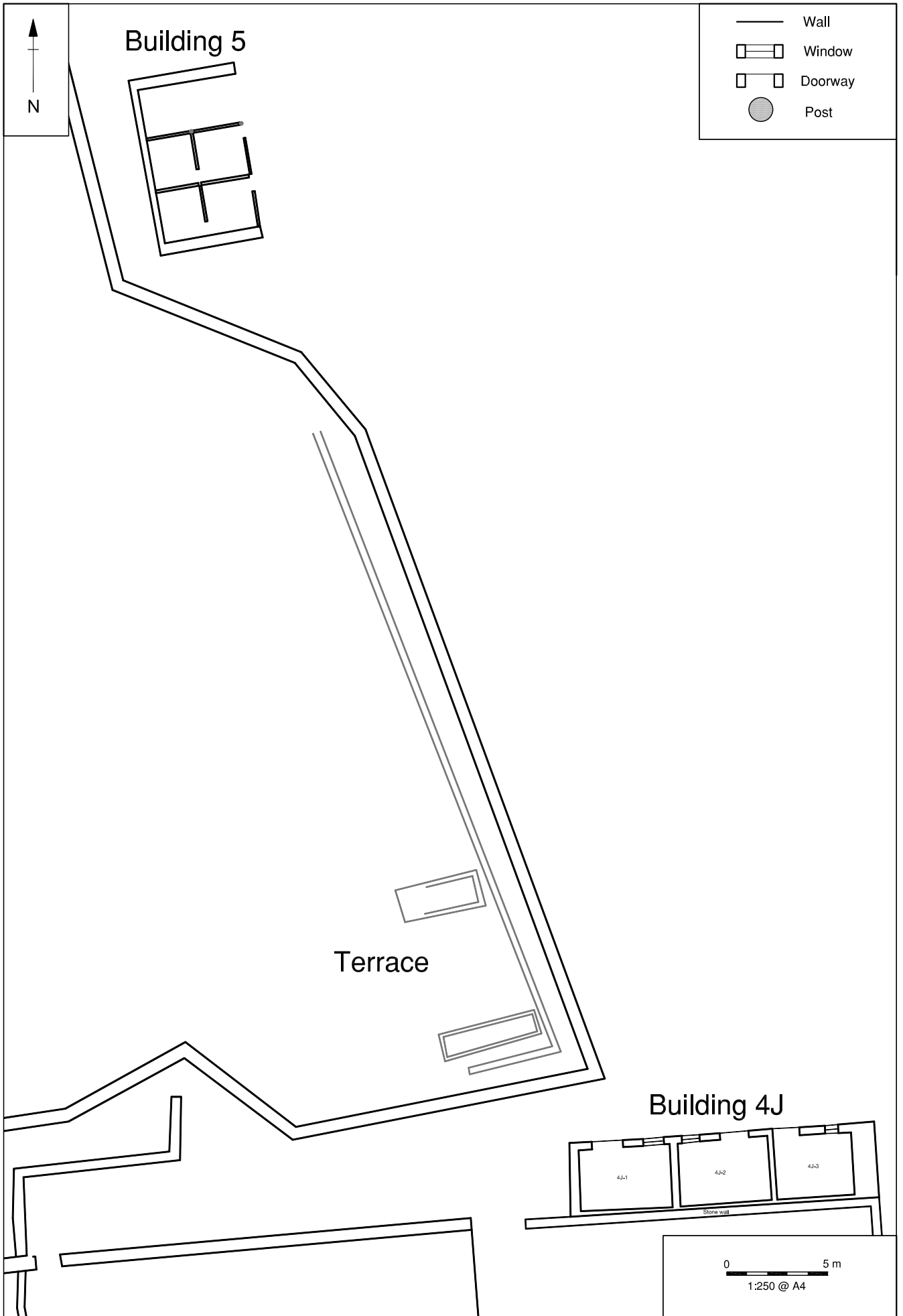


Figure 17: Terrace

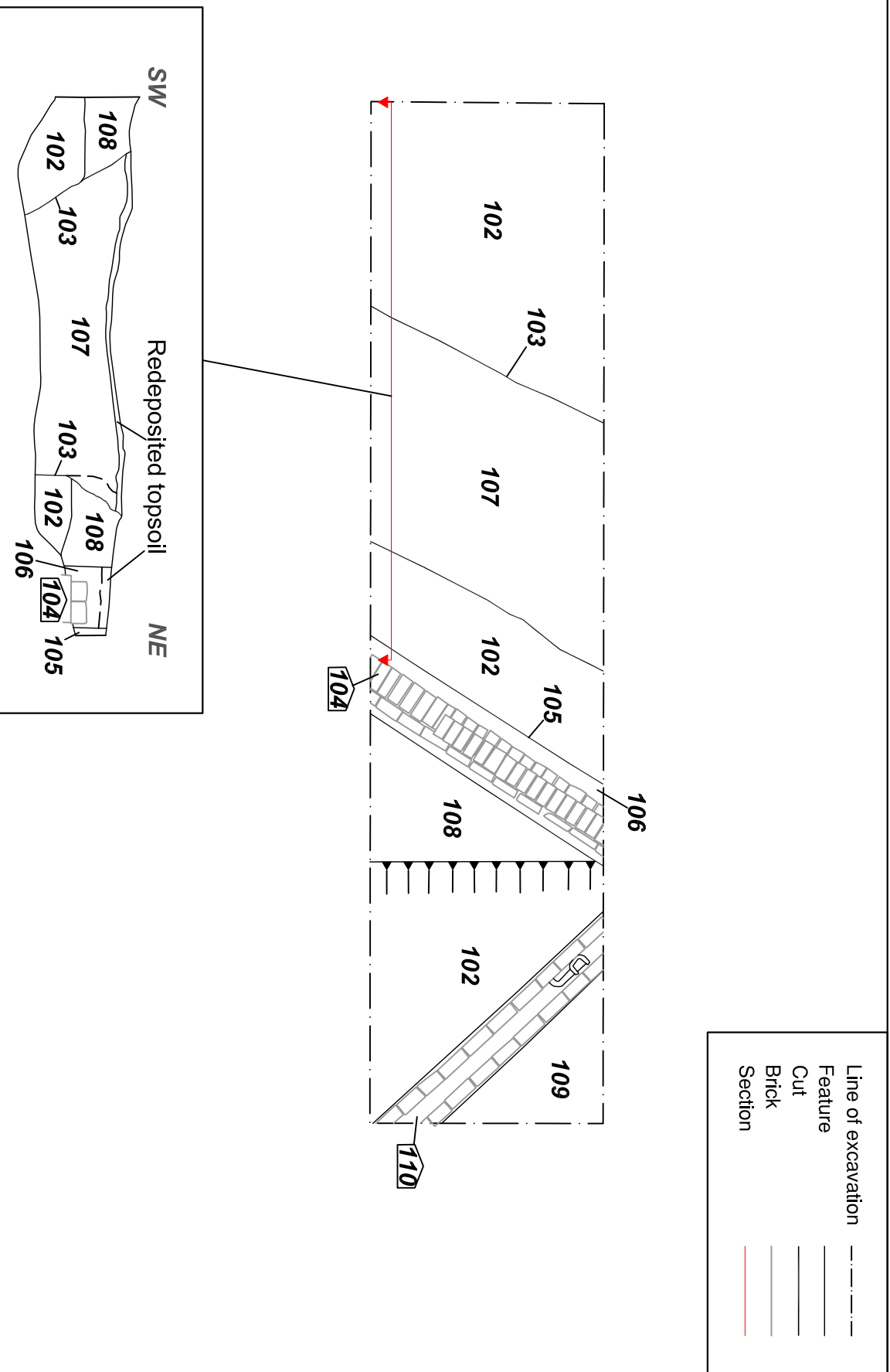


Figure 18: Plan of Trench 1, with section inset showing twentieth-century garden features 104, 110, and 103



Plate 1: General view of Building 1, facing north



Plate 2: General view of Building 1, facing west



Plate 3: Join between canted part and northern part of Building 1



Plate 4: Bay window at the south-west end of Building 1



Plate 5: Partially blocked doorway on the south-west elevation of Building 1



Plate 6: Courtyard between Buildings 1 and 2



Plate 7: Walkway between Buildings 1 and 2

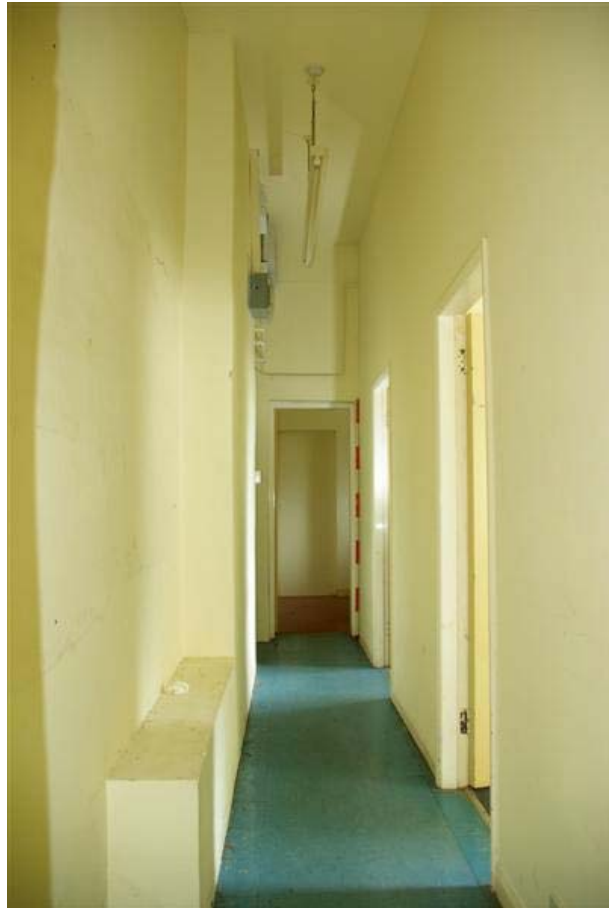


Plate 8: Corridor **B1-1** in Building 1, facing west



Plate 9: Blocked door between Rooms **B1-5** and **B1-7** (from Room **B1-7**)



Plate 10: General view of Room **B1-7**, facing east



Plate 11: General view of Room **B1-7**, facing east



Plate 12: General view of Room **B1-9**, facing south



Plate 13: General view of **Room B1-9**, facing north



Plate 14: View of the roof in **Room B1-9**



Plate 15: Detail of a boss in Room **B1-9**



Plate 16: Detail of chamfer on unpainted roof beams in Room **B1-9**



Plate 17: General view of Room **B1-10**, facing south



Plate 18: General view of Room **B1-10**, facing north

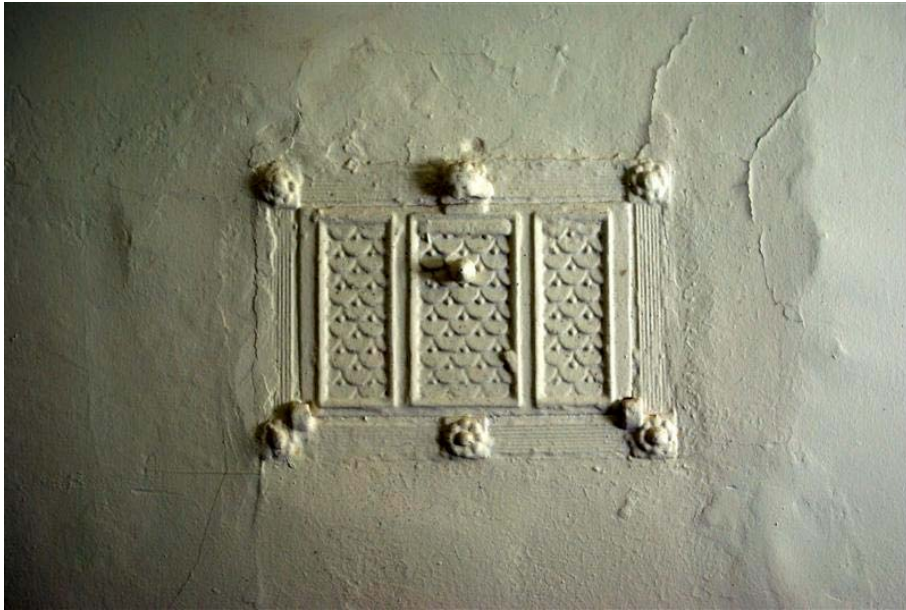


Plate 19: Ventilation flap in Room **B1-10**



Plate 20: View of the east-facing elevation of Building **2**



Plate 21: View of the west-facing elevation of the northern part of Building 2



Plate 22: View of the alcove/recess in Room **B2-1**



Plate 23: General view of Room **B2-4**



Plate 24: General view of Room **B2-10**, facing west



Plate 25: General view of Building 3, facing west



Plate 26: Rear view of Building 3, facing east



Plate 27: Main doorway, Building 3



Plate 28: Chamfering at south-east corner of the Building 3



Plate 29: Small window in projecting gable on the west elevation of Building 3



Plate 30: East gable elevation of the 'Growth Rooms', Building 3



Plate 31: Internal view of entrance arch within Room **B3-1**



Plate 32: The staircase in Building 3



Plate 33: Room **B3-7**, the corridor on the first floor of Building 3, facing south



Plate 34: Recesses within Room **B3-11**, Building 3



Plate 35: Room **B3-12** in Building 3



Plate 36: Roof space in Building 3



Plate 37: South elevation of the 'Growth Rooms' Building 3



Plate 38: Truss in Room **B3-14**



Plate 39: Rebuilt south elevation of the 'Growth Rooms', Building 3



Plate 40: Example of the east wall of the walled garden



Plate 41: Eastern part of the south boundary wall of the walled garden



Plate 42: General view of the north wall of the walled garden, with lean-to building **4J** to the left



Plate 43: Building **4J** at the north-east corner of the walled garden



Plate 44: Derelict structure (Building **5**) at the northern limit of the development area



Plate 45: Interior of the derelict structure, Building 5



Plate 46: General view of the south interior of the walled garden



Plate 47: General view of the north interior of the walled garden



Plate 48: General view of Buildings 6 and 7



Plate 49: South-facing elevation of Building 6



Plate 50: West elevation of Building 6



Plate 51: West elevation of Building 7



Plate 52: View of Building 9



Plate 53: Example of an internal room within the military structures



Plate 54: Example of a concrete foundation platform



Plate 55: Further example of a concrete foundation platform, Building 8 in the background



Plate 56: Revetment wall of the terrace looking north



Plate 57: Revetment wall of the terrace looking north



Plate 58: Rectangular concrete foundation on the terrace



Plate 59: Trench 1, looking south-west

APPENDIX 1: PROJECT BRIEFS FOR BUILDING SURVEY AND EVALUATION

**BRIEF FOR AN ARCHAEOLOGICAL BUILDING RECORDING PROJECT
AT MERLEWOOD, WINDERMERE ROAD, GRANGE-OVER-SANDS, CUMBRIA**

Issued by the

County Historic Environment Service

Environment Unit, Economy, Culture and Environment



Date of Brief: 19 September 2007

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

SITE DESCRIPTION AND SUMMARY

Site Name:	Merlewood, Windermere Road, Grange-over-Sands
Grid Reference:	SD 4095 7960
Planning Application Reference Nos.:	5/07/0585 & 5/07/0586
Structures Requiring Survey:	Stables and courtyard (Desk-Based Assessment site 1); 19 th century building between the stables & tower (site 1); NE-SW aligned 1930's extension to west side of main house (site 1); walled garden & associated features (site 21); terrace (site 23); derelict building (site 24); WWII buildings (site 30)

Detailed specifications are invited from appropriately resourced, qualified and experienced archaeological contractors to undertake the archaeological project outlined by this Brief and to produce a report on that work. The project team must be led by a member of the Institute of Field Archaeologists or the Institute of Historic Building Conservation or equivalent. No fieldwork may commence until approval of a specification has been issued by the County Historic Environment Service.

1. PLANNING BACKGROUND

- 1.1 Cumbria County Council's Historic Environment Service (CCCHES) has been consulted by South Lakeland District Council regarding a planning application for the construction of a self-catering leisure complex at Merlewood, Windermere Road, Grange-over-Sands.
- 1.2 The site has been the subject of an archaeological desk-based assessment (Oxford Archaeology North, 2006, *Merlewood, Grange-over-Sands, Cumbria, Archaeological Desk-Based Assessment*, unpublished report) and this brief should be read in conjunction with that report. The assessment highlights that the scheme affects a number of buildings and structures of archaeological interest. Consequently, an archaeological condition has been placed on planning consent requiring a programme of archaeological building recording to be undertaken prior to the proposed development taking place.
- 1.3 This advice is in accordance with guidance given in Planning Policy Guidance note 15 (Planning and the Historic Environment) and Planning Policy Guidance note 16 (Archaeology and Planning) as well as with policy C19 of the South Lakeland Local Plan.
- 1.4 The site also has the potential to contain currently unknown archaeological remains below ground. An archaeological evaluation is therefore required in the areas of ground disturbance of the proposed development to determine the presence and nature of any archaeological remains. The evaluation is the subject of a separate design brief produced by this office.

2. ARCHAEOLOGICAL BACKGROUND

- 2.1 Merlewood (HER no. 24185) is a grade II listed mansion built in 1853 and extended in 1881. The desk-based assessment (OAN 2006) has highlighted that the mansion lies within a designed landscape that retains contemporary features together with later structures associated with the sites use as a hotel and Second World War training camp. Merlewood lies within a conservation area that extends across Grange-over-Sands.

3. SCOPE OF THE PROJECT

- 3.1 *Objectives*
 - 3.1.1 To make a record of the historic structures affected by the proposed development. These structures are: the 19th century stables and courtyard to the north west of the hall (Desk-Based Assessment site 1); the 19th century building between the stables & tower (site 1); the NE-SW aligned 1930's extension to west side of

the hall (site 1); the walled garden & attached associated features (site 21); the terrace to the north of the walled garden (site 23); the derelict building to the north of the walled garden (site 24); the WWII buildings and foundation bases (site 30).

3.2 Work Required

3.2.1 Before any on site work commences a *rapid desk-based survey* of the existing resource should be undertaken to set buildings to be [converted/demolished] in their historic context. This should include an assessment of those primary and secondary sources (particularly cartographic sources and estate records) referenced in the County Records Office.

3.2.2 To carry out a *measured survey of the structures*. For the buildings, the survey should include the requirements of a 'Level 2' Survey, as described by English Heritage *Understanding Historic Buildings A Guide to Good Recording Practice, 2006*. For the terrace and building foundation bases, the survey should comprise a plan of the structures and a photographic record.

3.2.3 The requirements of the survey are:

- ❖ The precise location of the structures, providing National Grid References
- ❖ A date when the project was undertaken and by whom
- ❖ A description of each structure's plan, form, function, age, development sequence and construction materials. Where known, each structure's architects, builders, patrons and owners should be provided
- ❖ A description of each structure's landscape and historic context, for example it's relationship with nearby buildings in architectural and functional terms, and it's relationship to the designed landscape around Merlewood and other man-made features
- ❖ A scaled plan of each structure showing the location of every photographed feature of architectural or archaeological interest
- ❖ Where appropriate, section drawings of the structures showing their vertical relationships
- ❖ A photographic record including: photographs of the structures in their landscape context; detailed photographs of the structures' external appearances; internal photographs of the main rooms of the structures; detailed photographs of features of architectural or archaeological significance. Photographs should include a scale.

4. PROJECT DESIGN

4.1 Before the project commences a project proposal must be submitted to and approved by the County Historic Environment Service.

4.2 Proposals to meet this Brief should take the form of a detailed project design prepared in accordance with the recommendations of *The Management of Archaeological Projects, 2nd ed. 1991*, and must include:

- ❖ A description of the building recording system to be used
- ❖ Details of key project staff, including the names of the project manager any other specialist sub-contractors to be employed
- ❖ Details of on site staffing, e.g. the number of people to be employed on site per day
- ❖ A projected timetable for all site work through to the publication of results

4.3 Any significant variations to the proposal must be agreed by the County Historic Environment Service in advance.

5. REPORTING AND PUBLICATION

5.1 The archaeological work should result in a report, this should include as a minimum:

- ❖ A site location plan, related to the national grid, produced at an appropriate scale to show the context of the structures within the designed landscape of Merlewood
- ❖ A front cover/frontispiece which includes the planning application number and the national grid reference of the site
- ❖ A concise, non-technical summary of the results
- ❖ Scaled plans of the structures showing the location of each photographed feature of architectural or archaeological interest

- ❖ Photographs of the structures should be accompanied by an appropriate description
- ❖ A description of the methodology employed, work undertaken and the results obtained
- ❖ Plans, sections drawings and photographs at an appropriate scale
- ❖ The dates on which the project was undertaken

- 5.2 Three copies of the report should be deposited with the County Historic Environment Record within two months of completion of fieldwork. This will be on the understanding that the report will be made available as a public document through the County Historic Environment Record.
- 5.3 Cumbria HER is taking part in the *Online Access to Index of Archaeological Investigations (OASIS)* project. The online OASIS form at <http://ads.ahds.ac.uk/project/oasis> must therefore also be completed as part of the project. Information on projects undertaken in Cumbria will be made available through the above website, unless otherwise agreed.

6. THE ARCHIVE

- 6.1 An archive must be prepared in accordance with the recommendations in Brown, DH, 2007, *Archaeological Archives A Guide To Best Practice In Creation, Compilation, Transfer and Curation*, Archaeological Archives Forum. Arrangements must be made for its long term storage and deposition with an appropriate repository. A copy shall also be offered to the National Monuments Record.
- 6.2 The County Historic Environment Service must be notified of the arrangements made.

7. PROJECT MONITORING

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

8. FURTHER REQUIREMENTS

- 8.1 It is the archaeological contractor's responsibility to establish safe working practices in terms of current health and safety legislation, to ensure site access and to obtain notification of hazards (eg. services, contaminated ground, etc.). **The County Historic Environment Service bears no responsibility for the inclusion or exclusion of such information within this Brief or subsequent specification.**
- 8.2 All rooms should be clear of obstructions as far as practically possible in order to provide an adequate photographic record to be made.
- 8.3 The involvement of the County Historic Environment Service should be acknowledged in any report or publication generated by this project.

9. FURTHER INFORMATION

For further information regarding this brief, contact

Jeremy Parsons
Assistant Archaeologist
Tel: 01539 773431
Email. Jeremy.Parsons@cumbriacc.gov.uk

BRIEF FOR AN ARCHAEOLOGICAL EVALUATION
AT MERLEWOOD, WINDERMERE ROAD, GRANGE-OVER-SANDS, CUMBRIA

Issued by the

County Historic Environment Service

Environment Unit, Economy, Culture and Environment



Date of Brief: 19 September 2007

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

1. SITE DESCRIPTION AND SUMMARY

Site: Merlewood, Windermere Road, Grange-over-Sands

Grid Reference: SD 4095 7960

Planning Application Nos.: 5/07/0585 & 5/07/0586

Scope of Evaluation: 125 square metres of trial trenching

Detailed proposals and tenders are invited from appropriately resourced, qualified and experienced archaeological contractors to undertake the archaeological project outlined by this Brief and to produce a report on that work. The work should be under the direct management of either an Associate or Member of the Institute of Field Archaeologists, or equivalent. Any response to this Brief should follow IFA Standard and Guidance for Archaeological Field Evaluations, 2001. No fieldwork may commence until approval of a specification has been issued by the County Historic Environment Service.

2. PLANNING BACKGROUND

- 2.1 Cumbria County Council's Historic Environment Service (CCCHES) has been consulted by South Lakeland District Council regarding a planning application for the construction of a self-catering leisure complex at Merlewood, Windermere Road, Grange-over-Sands.
- 2.2 The site has been the subject of an archaeological desk-based assessment (Oxford Archaeology North, 2006, *Merlewood, Grange-over-Sands, Cumbria, Archaeological Desk-Based Assessment*, unpublished report) and this brief should be read in conjunction with that report. The assessment highlights that the scheme affects an area considered to have a high archaeological potential.
- 2.3 Because of the high archaeological potential of the site, a condition has been placed on planning consent requiring a scheme of archaeological work to be undertaken at the site. The first phase of this work will be an archaeological evaluation to assess the nature and potential of the site. This Brief deals solely with this phase.
- 2.4 This advice is in accordance with guidance given in Planning Policy Guidance note 16 (Archaeology and Planning) and with policy as well as with policy C19 of the South Lakeland Local Plan.
- 2.5 The proposed development also affects a number of buildings and structures of archaeological interest. Consequently, an archaeological condition has been placed on planning consent requiring a programme of archaeological building recording to be undertaken prior to the proposed development taking place. This is the subject of a separate design brief produced by this office.

3. ARCHAEOLOGICAL BACKGROUND

- 3.1 Merlewood Cave (HER no. 2449), situated to the south of the site, was the subject of an archaeological investigation that revealed undated human bones and Roman early medieval finds. The site is located in a wider landscape of significant prehistoric activity and settlement with, for example, the hut circles (HER no. 2407 & 19244) and cairnfields on Hampsfell (HER nos. 2388, 2445 & 19243).

4. SCOPE OF THE PROJECT

4.1 Objectives

- 4.1.1 The evaluation should aim to determine the location, extent, date, character, condition, significance and quality of any surviving archaeological remains liable to be threatened by the proposed development. An adequate representative sample of all areas where archaeological remains are potentially threatened should be studied.

4.2 Work Required

- 4.2.1 A visual inspection of the site. This should include a walkover of the site noting any surface features of potential archaeological interest, areas of potentially significant disturbance, and hazards and constraints to undertaking further archaeological work on site (including the siting of live services, Tree Preservation Orders and public footpaths).
- 4.2.2 The excavation of a series of linear trial trenches to adequately sample the areas of the proposed buildings and landscaping, and the investigation and recording of deposits and features of archaeological interest identified within those trenches. All features must be investigated and recorded unless otherwise agreed with the County Historic Environment Service. Initial topsoil and demonstrably modern overburden can be removed by machine, but subsequent cleaning and investigation must be by hand. A minimum sample of 125 square metres of trial trenching should be investigated.
- 4.2.3 The evaluation should provide a predictive model of surviving archaeological remains detailing zones of relative importance against known development proposals. An impact assessment should also be provided, wherever possible.
- 4.2.4 The following analyses should form part of the evaluation, as appropriate. If any of these areas of analysis are not considered viable or appropriate, their exclusion should be justified in the subsequent report.
- A suitably qualified specialist should assess the environmental potential of the site through the examination of suitable deposits, including: (1) soil pollen analysis and the retrieval of charred plant macrofossils and land molluscs from former dry-land palaeosols and cut features, and; (2) the retrieval of plant macrofossils, insect, molluscs and pollen from waterlogged deposits.
 - Advice is to be sought from a suitably qualified specialist in faunal remains on the potential of sites for producing bones of fish and small mammals. If there is potential, a sieving programme should be undertaken. Faunal remains, collected by hand and sieved, are to be assessed and analysed, if appropriate.
 - The advice from a suitably qualified soil scientist should be sought on whether a soil micromorphological study or any other analytical techniques will enhance understanding site formation processes of the site, including the amount of truncation to buried deposits and the preservation of deposits within negative features. If so, analysis should be undertaken.

5. SPECIFICATION

- 5.1 Before the project commences a project proposal must be submitted to, and approved by, the County Historic Environment Service.
- 5.2 Proposals to meet this Brief should take the form of a detailed specification prepared in accordance with the recommendations of *The Management of Archaeological Projects*, 2nd ed. 1991, and must include:
- ❖ A description of the excavation sampling strategy and recording system to be used
 - ❖ A description of the finds and environmental sampling strategies to be used
 - ❖ A description of the post excavation and reporting work that will be undertaken
 - ❖ Details of key project staff, including the names of the project manager, site supervisor, finds and environmental specialists and any other specialist sub-contractors to be employed
 - ❖ Details of on site staffing, expressed in terms of person days
 - ❖ A projected timetable for all site work and post excavation work
- 5.3 The proposed locations of the trial trenches must be agreed with the County Historic Environment Service.
- 5.4 Any significant variations to the proposal must be agreed by the County Historic Environment Service in advance.

6. REPORTING AND PUBLICATION

- 6.1 The archaeological work should result in a report, this should include as a minimum:
- ❖ A site location plan, related to the national grid
 - ❖ A front cover/frontispiece which includes the planning application number and the national grid reference of the site
 - ❖ The dates on which the fieldwork was undertaken

- ❖ A concise, non-technical summary of the results
 - ❖ An explanation of any agreed variations to the brief, including justification for any analyses not undertaken (see 4.2.4)
 - ❖ A description of the methodology employed, work undertaken and the results obtained
 - ❖ Plans and sections at an appropriate scale showing the location and position of deposits and finds located
 - ❖ A list of, and dates for, any finds recovered and a description and interpretation of the deposits identified
 - ❖ A description of any environmental or other specialist work undertaken and the results obtained
- 6.2 Three copies of the report should be deposited with the County Historic Environment Record within two months of completion of fieldwork. This will be on the understanding that the report will be made available as a public document through the County Historic Environment Record.
- 6.3 The results of the evaluation will need to be made available for inclusion in a summary report to a suitable regional or national archaeological publication if further archaeological fieldwork is expected.
- 6.4 Recommendations concerning any subsequent mitigation strategies and/or further archaeological work following the results of the field evaluation should **not** be included in the report. Such recommendations are welcomed by the County Historic Environment Service, and may be outlined in a separate communication.
- 6.5 Cumbria HER is taking part in the Online Access to Index of Archaeological Investigations (OASIS) project. The online OASIS form at <http://ads.ahds.ac.uk/project/oasis> must therefore also be completed as part of the project. Information on projects undertaken in Cumbria will be made available through the above website, unless otherwise agreed.

7. THE ARCHIVE

- 7.1 An archive must be prepared in accordance with the recommendations in Brown, DH, 2007, *Archaeological Archives A Guide To Best Practice In Creation, Compilation, Transfer and Curation*, Archaeological Archives Forum. Arrangements must be made for its long term storage and deposition with an appropriate repository. A copy shall also be offered to the National Monuments Record.
- 7.2 The landowner should be encouraged to transfer the ownership of finds to a local or relevant specialist museum. The museum's requirements for the transfer and storage of finds should be discussed before the project commences.
- 7.3 The County Historic Environment Service must be notified of the arrangements made.

8. PROJECT MONITORING

- 8.1 One weeks notice must be given to the County Historic Environment Service prior to the commencement of fieldwork.
- 8.2 Fieldwork will be monitored by the Assistant Archaeologist on behalf of the local planning authority.

9. FURTHER REQUIREMENTS

- 9.1 It is the archaeological contractor's responsibility to establish safe working practices in terms of current health and safety legislation, to ensure site access and to obtain notification of hazards (eg. services, contaminated ground, etc.). **The County Historic Environment Service bears no responsibility for the inclusion or exclusion of such information within this Brief or subsequent specification.**
- 9.2 All aspects of the evaluation shall be conducted in accordance with the Institute of Field Archaeologist's *Code of Conduct* and the IFA's *Standard and Guidance for Archaeological Field Evaluations*.
- 9.3 Human remains must be left *in situ*, covered and protected when discovered. No further investigation should normally be permitted beyond that necessary to establish the date and character of the burial, and the County Historic Environment Service and the local Coroner must be informed immediately. If removal is essential,

it can only take place under appropriate Department for Constitutional Affairs and environmental health regulations.

- 9.4 The involvement of the County Historic Environment Service should be acknowledged in any report or publication generated by this project.

10. FURTHER INFORMATION

For further information regarding this brief, contact

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For further information regarding the County Historic Environment Record, contact

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

APPENDIX 2: PROJECT DESIGN

MERLEWOOD, WINDERMERE ROAD, GRANGE- OVER-SANDS, CUMBRIA

ARCHAEOLOGICAL BUILDING INVESTIGATION, SURVEY AND EVALUATION PROJECT DESIGN



Oxford Archaeology North

October 2007

JMP Architects

Grid Reference: SD 4905 7960

OA North Reference: T3141

Planning Reference: 5/07/0585 &
5/07/0586

1. INTRODUCTION

1.1 PROJECT BACKGROUND

1.1.1 JMP Architects (hereafter the 'client') have submitted proposals for the redevelopment of Merlewood, Windermere Road, Grange-over-Sands, Cumbria (SD 4095 7960; planning references 5/07/0585 and 5/07/0586). Merlewood comprises a complex of buildings lying on steeply sloping ground within a wooded location, roughly 1km to the north of Grange-over-Sands. The proposals for the development of a residential holiday complex cover an area of approximately 1.4 ha and intend to utilise the principal Grade II -listed nineteenth-century mansion, but to demolish and replace the majority of the remaining extant structures, some of which date to the nineteenth century. Other features, such as an original tennis court, will be restored within their present locations. Merlewood and its surroundings are part of the wider Grange-over-Sands conservation area. The results of a previous desk-based assessment (OA North 2006) indicated that the site lies within an area of archaeological potential and that a number of structures on site are of historical interest. Accordingly, Cumbria County Council Historic Environment Service (CCCHES) issued a brief for a programme of archaeological investigation and recording to be undertaken in advance of any development taking place. These works are to comprise a historic building investigation of a number of the structures that are scheduled for demolition, a survey of the northern terrace, and a trial trench evaluation within areas of new build. At the request of the client, the following document represents an Oxford Archaeology North (OA North) project design for a programme of archaeological work to meet the requirements of the CCCHES brief.

1.2 ARCHAEOLOGICAL AND HISTORICAL BACKGROUND

1.2.1 The OA North desk-based assessment (2006) identified 31 archaeological sites, dating from the Palaeolithic to twentieth century, located within a 1km radius study area focused on Merlewood. A number of chance finds of Mesolithic, Neolithic and Bronze Age stone tools have been found within the study area, whilst the Palaeolithic, in particular, and the Romano-British and early medieval activity identified at Merlewood Cave are also significant; such remains highlight the potential for as yet unknown contemporary activity within the proposed development area.

1.2.2 However, the majority of sites identified within the study area, including all those to be impacted upon by the proposed development, are of later post-medieval date. Many of these sites form integral elements of the Merlewood estate, which centres on the Grade II-listed mansion built in 1853 by Thompson and Webster for Alfred Binyon, a rich cotton magnate. Significant elements pertaining to the original period of construction and to the building's 1881 expansion include ancillary buildings such as the stable block and lodge, the gate piers and the walled garden (with associated internal and external lean-to structures), and a number of landscape features, such as the haha to the south of the house, and the terrace towards the northern extent of the estate centre. Further structures, such as that adjoining the south-west corner of the hall, pertain to the conversion of the building to a hotel in the interwar years. Use of the site as a training camp during the Second World War is illustrated by a number of small buildings on the slopes to the east of the estate centre.

1.3 AFFECT OF THE DEVELOPMENT

1.3.1 In consideration of the latest development plans, the following table presents the sites that will be affected by the design proposals, together with those elements of investigation necessary to meet the requirements of the CCCHES brief:

DBA Site	Description	Development Proposal	Archaeological Investigation
1	Stable Block and Courtyard	Demolition	Level II Historic Building Investigation
		Construction of Building C	
1	Nineteenth-century building between stable and tower	Demolition	Level II Historic Building Investigation
		Construction of Building C	
1	1930s north-east/south-west aligned extension at south-west end of Merlewood mansion	Demolition	Level II Historic Building Investigation
		Construction of Building C	
21	Walled garden and associated internal and external lean-to structures	Demolition	Level II Historic Building Investigation
		Construction of Buildings A & B	Evaluation
23	Terrace and other designed elements of the landscape to the north and east of Merlewood	General retention, but some landscaping to allow for the insertion of roads and services	Topographic survey
24	Derelict building at northern edge of development site	Demolition	Level II Historic Building Investigation
30	Second World War buildings	Demolition	Level II Historic Building Investigation and survey of platform locations of already demolished structures.
		Construction of Building F	Evaluation
	Land to the north of the Mansion	Access roads with associated services and drainage	Evaluation
	Land between the mansion and the second world war buildings	Construction of Building E	Evaluation

Table 1: Summary of archaeological investigation

1.4 OXFORD ARCHAEOLOGY NORTH

- 1.4.1 The company, both as Oxford Archaeology North and under the former guise of Lancaster University Archaeological Unit (LUAU), has considerable experience of sites of all periods, having undertaken a great number of small and large scale projects throughout Northern England during the past 25 years. Evaluations, assessments, watching briefs and excavations have taken place within the planning process, to fulfil the requirements of clients and planning authorities, to very rigorous timetables. OA North has undertaken a number of investigations of sites in north-west Cumbria, including the recent excavations at Beckfoot Roman Cemetery.
- 1.4.2 OA North has the professional expertise and resources to undertake the project detailed below to a high level of quality and efficiency. OA North is an Institute of Field Archaeologists (IFA) **registered organisation, registration number 17**, and all its members of staff operate subject to the IFA Code of Conduct.

2 OBJECTIVES

- 2.1 The following programme has been designed to record the external and internal details of those historic buildings scheduled for demolition identify and to evaluate the subsoil deposits within the development area in order to determine the presence, extent, nature, quality and significance of any archaeological deposits that may be threatened by the proposed residential development. To this end, the following programme of archaeological work has been designed. The results of the intrusive fieldwork will provide information as to whether further mitigation works are required prior to, or during, ground works associated with the development. The required stages to achieve these ends are as follows:
- 2.2 **Historic Building Investigation:** to provide a drawn and textual record of those buildings scheduled for demolition (*See Table 1*) to English Heritage (2006) level II type standard.
- 2.3 **Topographic Survey:** to undertake a topographic survey of the northern terrace, with particular attention to detail in those areas that will be affected by the development.
- 2.4 **Archaeological Evaluation:** to implement a programme of trial trenching examining 125m² within those parts of the proposed development area that will be developed for buildings and access roads.
- 2.5 **Report and Archive:** a written report will assess the significance of the data generated by this programme within a local and regional context. It will present the results of the evaluation and would make an assessment of the archaeological potential of the area, and any recommendations for further work.

3 METHOD STATEMENT

3.1 HISTORIC BUILDING INVESTIGATION

- 3.1.1 **Rapid Desk-Based Assessment:** since a general desk-based assessment (DBA) has already been undertaken of the site, the rapid DBA will focus on those structures scheduled for demolition, and will attempt to collate as much specific information as time and the available sources of information allow. The assessment will comprise the following elements:
- (i) **Documentary and Cartographic Material:** this will include a rapid appraisal of the data in the Cumbria County Record Office, Kendal, together with any relevant information available from local libraries, archives and local history studies.
 - (ii) **Historic Map Regression:** the full range of available Ordnance Survey mapping, together with any available contemporary estate plans, building plans, etc, will be consulted in an attempt provide information on the origin and development of particular buildings within the complex.
- 3.1.2 **Photographic Archive:** a photographic archive will be produced utilising a 35mm camera to produce colour slides and black and white contact prints. A full photographic index will be produced and the position of photographs will be marked on the relevant floor plans. The archive will comprise the following:
- (i) The external appearance and setting of each structure;
 - (ii) The overall appearance of principal rooms and circulation areas;
 - (iii) Any external or internal detail, structural or architectural, which is relevant to the design, development and use of the buildings, and which does not show adequately on general photographs;

- (iv) Any internal detailed views of features of especial architectural interest, fixtures and fittings, or fabric detail relevant to phasing the buildings.
- 3.1.3 **Site Drawings:** accurate, clear drawings of the extant structures are extremely important for the efficient undertaking of the historic building investigation. If it is possible for the client to provide architects plans/drawings for any/all of the structures (or should these come to light during the research for the rapid DBA), depicting external and internal detail, these will be utilised during the building investigation. If not, the archaeologists will be able to make use of scaled external drawings based on the digital plans provided by the client (assuming that these are of sufficient accuracy), but it will be necessary to plan internal aspects of the structures, and such work will take proportionately longer. During the survey, additional detail and annotation will be added to the internal and external scale drawings. Section drawings will be made where appropriate.
- 3.1.4 OA North does not undertake to correct survey inaccuracies in the client's drawings, which shall remain the responsibility of the client. However, if inaccuracies significantly impede the progress of the archaeological survey and must be rectified to allow the archaeological survey to proceed, a charge for this correction will be made (see *Section 10*).
- 3.1.5 The drawings will be used to illustrate the phasing and development of the buildings. Detail captured by the annotation will include such features as window and door openings, an indication of ground and roof level, and changes in building material. The final drawings will be presented through an industry standard CAD package.
- 3.1.6 **Interpretation and Analysis:** a visual inspection of the buildings will be undertaken utilising the OA North building investigation *pro-forma* sheets. A description of the buildings will be undertaken to English Heritage (2006) Level II standard, which will include a systematic account of the origin, development and use of the buildings as well as the evidence on which this account is based
- 3.1.10 The written record will include:
- (i) An analysis of the plan, form, fabric, function, age and development sequence of the building;
 - (ii) An account of the past and present use of the building;
 - (iii) An account of the fixtures, fittings associated with the building, and their purpose;
 - (iv) Identification of key architectural features (including fixtures and fittings) which should be preserved in-situ;
 - (v) A discussion of the relative significance of rooms within the building;
 - (vi) A description of the historic context of the building including its relationship with nearby buildings in architectural and functional terms and so forth.

3.2 TOPOGRAPHIC SURVEY

- 3.2.1 It is extremely important that elements of the designed landscape, particularly those that fall within areas of proposed construction, should be surveyed to preserve by record the landscape context of Merlewood. Details of the northern terrace, together with any other elements of the designed landscape that would be affected by the development, and the concrete slabs of the now demolished former World War II buildings will be recorded through instrument survey, tied into Ordnance Datum using local base stations. OA North would be grateful if the client could make available a digital copy in CAD format of the existing contour survey data used by the client for the display of the current building layout

and proposed development for superimposition of the topographic survey data. The survey will make full use of GPS, but, due to the high numbers of trees in the area, elements of the survey will need to be undertaken with a total station theodolite with electronic distomat.

3.3 EVALUATION

- 3.3.1 The programme of trial trenching will establish the presence or absence of any previously unsuspected archaeological deposits and, if established, will then test their date, nature, depth and quality of preservation. In this way, it will adequately sample the threatened available area.
- 3.3.2 **Trench configuration:** the evaluation is required to examine a minimum of 125m² of development area, equating to the excavation of 6 trenches totalling 11m in length by 2m in width. It is proposed that five of these trenches be placed in previous undisturbed areas within the footprints of buildings A, B, E and F, with the remainder placed in previously undisturbed areas within areas of access track; a location plan will be provided for approval by CCCHES prior to the commencement of fieldwork. The area of each trench will need to be cleared of any demolition debris, vegetation or other obstructions prior to the commencement of any excavation.
- 3.3.3 **Methodology:** within each trench, the upper horizons of overburden, topsoil, subsoil and any recent made-ground will be rapidly removed by a mechanical excavator fitted with a wide toothless ditching bucket and working under archaeological supervision to the surface of the first significant archaeological deposit or to the level of the natural subsoil. This deposit will be cleaned by hand, using either hoes, shovel scraping, and/or trowels, depending on the subsoil conditions, and inspected for archaeological features. All features of archaeological interest must be investigated and recorded unless otherwise agreed by CCCHES. The trenches will not be excavated deeper than 1.2m to accommodate health and safety constraints; any requirements to excavate below this depth will involve recosting.
- 3.3.4 All trenches will be excavated in a stratigraphical manner, whether by machine or by hand. Trenches will be located by use of GPS equipment, which is accurate to +/- 0.25m, or Total Station. Altitude information will be established with respect to Ordnance Survey Datum.
- 3.3.5 Any investigation of intact archaeological deposits will be exclusively manual. Selected pits and postholes will normally only be half-sectioned, linear features will be subject to no more than a 10% sample, and extensive layers will, where possible, be sampled by partial rather than complete removal. It is hoped that in terms of the vertical stratigraphy, maximum information retrieval will be achieved through the examination of sections of cut features. All excavation will be undertaken with a view to avoiding damage to any archaeological features, which appear worthy of preservation *in situ*.
- 3.3.6 All information identified in the course of the site works will be recorded stratigraphically, using a system, adapted from that used by Centre for Archaeology Service of English Heritage, with sufficient pictorial record (plans, sections, colour slides and monochrome contacts) to identify and illustrate individual features. Primary records will be available for inspection at all times.
- 3.3.7 Results of all field investigations will be recorded on *pro-forma* context sheets. The site archive will include both a photographic record and accurate large scale plans and sections at an appropriate scale (1:50, 1:20 and 1:10). All artefacts and ecofacts will be recorded using the same system, and will be handled and stored according to standard practice (following current Institute of Field Archaeologists guidelines) in order to minimise deterioration.
- 3.3.8 **Reinstatement:** it is understood that there will be a basic requirement for the backfilling of trenches: excavated material will be backfilled so that the topsoil is laid on the top, and the ground will be roughly graded. It would be preferable for the landowner to agree to the finished reinstated trenches prior to leaving site. Should there be a requirement by the client other than that stated, this will involve recosting for an agreed variation.

- 3.3.9 **Fencing/hoarding requirements:** it is assumed that the client will advise on the arrangements/requirements for the site to be protected from public access. Should there be a requirement for OA North to provide HERAS-type barrier, costs for the hire of materials and for OA North staff to erect and dismantle such fencing can be provided.
- 3.3.10 **Environmental Sampling:** environmental samples (bulk samples of 30 litres volume, to be sub-sampled at a later stage) will be collected from stratified undisturbed deposits and will particularly target negative features (gullies, pits and ditches). An assessment of the environmental potential of the site will be undertaken through the examination of suitable deposits by the in-house palaeoecological specialist, who will examine the potential for further analysis.
- 3.3.11 The assessment would include soil pollen analysis and the retrieval of charred plant macrofossils and land molluscs from former dry-land palaeosols and cut features. In addition, samples from waterlogged deposits would be assessed for plant macrofossils, insects, molluscs and pollen. The costs for the palaeoecological assessment are defined as a contingency and will only be called into effect if good deposits are identified and will be subject to the agreement of CCCHES and the client.
- 3.3.12 **Faunal remains:** if there is found to be the potential for discovery of bones of fish and small mammals, a sieving programme will be carried out. These will be assessed as appropriate by OA North's specialist in faunal remains, and subject to the results, there may be a requirement for more detailed analysis. A contingency has been included for the assessment of such faunal remains for analysis.
- 3.3.13 **Human Remains:** although not expected at this stage, any human remains uncovered will be left *in situ*, covered and protected. No further investigation will continue beyond that required to establish the date and character of the burial. CCCHES and the local Coroner will be informed immediately. If removal is essential, the exhumation of any funerary remains will require the provision of a Home Office license, under section 25 of the Burial Act of 1857. An application will be made by OA North for the study area on discovery of any such remains and the removal will be carried out with due care and sensitivity under the environmental health regulations. The cost of removal or treatment will be agreed with the client and costed as a variation.
- 3.3.14 **Treatment of finds:** all finds will be exposed, lifted, cleaned, conserved, marked, bagged and boxed in accordance with the United Kingdom Institute for Conservation (UKIC) *First Aid For Finds*, 1998 (new edition) and the recipient museum's guidelines.
- 3.3.15 All identified finds and artefacts will be retained, although certain classes of building material can sometimes be discarded after recording if an appropriate sample is retained on advice from the recipient museum's archive curator.
- 3.3.16 **Treasure:** any gold and silver artefacts recovered during the course of the excavation will be removed to a safe place and reported to the local Coroner according to the procedures relating to the Treasure Act, 1996. Where removal cannot take place on the same working day as discovery, suitable security will be employed to protect the finds from theft.
- 3.3.17 **Contingency plan:** a contingency costing may also be employed for unseen delays caused by prolonged periods of bad weather, vandalism, discovery of unforeseen complex deposits and/or artefacts which require specialist removal, use of shoring to excavate important features close to the excavation sections etc. This has been included in the separately provided Costings document, and would be charged in agreement with the client.
- 3.3.18 The evaluation will provide a predictive model of surviving archaeological remains detailing zones of relative importance against known development proposals. In this way, an impact assessment will also be provided.

3.4 REPORT AND ARCHIVE

3.4.1 **Report:** one bound and one unbound copy of the final report will be submitted to the client within two months of completion of fieldwork. Should the client require a draft report, or a separate copy of the desk-based assessment report, bound and unbound copies of such reports can be provided on request, within three weeks of the completion of each stage of the programme of work. Three copies of the report will be submitted to the CHER. The report will include:

- a site location plan related to the national grid
- a front cover to include the planning application number and the NGR
- the dates on which each phase of the programme of work was undertaken
- a concise, non-technical summary of the results
- an explanation to any agreed variations to the brief, including any justification for any analyses not undertaken
- a description of the methodology employed, work undertaken and results obtained
- an interpretation of the desk-based assessment results and their significance, using the 'Secretary of State's criteria for scheduling ancient monuments' included as Annex 4 of PPG 16 (DoE 1990)
- plans and sections at an appropriate scale showing the location and position of deposits and finds located as well as sites identified during the desk-based assessment
- monochrome and colour photographs as appropriate
- a list of and dates for any finds recovered and a description and interpretation of the deposits identified
- a description of any environmental or other specialist work undertaken and the results obtained
- a summary of the impact of the development on any archaeological remains and, where possible, a model of potential archaeological deposits within as-yet unexplored areas of the development site
- a copy of this project design, and indications of any agreed departure from that design
- the report will also include a complete bibliography of sources from which data has been derived.

3.4.2 This report will be in the same basic format as this project design; a copy of the report can be provided on CD, if required. Recommendations concerning any subsequent mitigation strategies and/or further archaeological work following the results of the field evaluation will be provided in a separate communication.

3.4.3 **Confidentiality:** all internal reports to the client are designed as documents for the specific use of the client, for the particular purpose as defined in the project brief and project design, and should be treated as such. They are not suitable for publication as academic documents or otherwise without amendment or revision.

3.4.4 **Archive:** the results of all archaeological work carried out will form the basis for a full archive to professional standards, in accordance with current English Heritage guidelines

(*Management of Archaeological Projects*, 2nd edition, 1991). The project archive will include summary processing and analysis of all features, finds, or palaeoenvironmental data recovered during fieldwork, which will be catalogued by context.

3.4.5 The deposition of a properly ordered and indexed project archive in an appropriate repository is essential and archive will be provided in the English Heritage Centre for Archaeology format and a synthesis will be submitted to the Cumbria HER (the index to the archive and a copy of the report). OA North practice is to deposit the original record archive of projects with the appropriate Record Office.

3.4.6 All artefacts will be processed to MAP2 standards and will be assessed by our in-house finds specialists. The deposition and disposal of any artefacts recovered in the evaluation will be agreed with the legal owner and an appropriate recipient museum. Discussion regarding the museum's requirement for the transfer and storage of finds will be conducted prior to the commencement of the project, and CCCHES will be notified of the arrangements made.

4. HEALTH AND SAFETY

4.1 OA North provides a Health and Safety Statement for all projects and maintains a Unit Safety policy. All site procedures are in accordance with the guidance set out in the Health and Safety Manual compiled by the Standing Conference of Archaeological Unit Managers (1997). A written risk assessment will be undertaken in advance of project commencement and copies will be made available on request to all interested parties.

4.2 Full regard will, of course, be given to all constraints (services etc) during the fieldwork as well as to all Health and Safety considerations. **Information regarding services within the study area have been received and will be used during the course of the evaluation.**

5 PROJECT MONITORING

5.1 Whilst the work is undertaken for the client, CCCHES will be kept fully informed of the work and its results, and will be notified a week in advance of the commencement of the fieldwork. Any proposed changes to the project design will be agreed with CCCHES in consultation with the client. Fieldwork will be monitored by the CCCHES Assistant Archaeologist on behalf of the developer.

6 WORK TIMETABLE

6.1 HISTORIC BUILDING INVESTIGATION AND TOPOGRAPHIC SURVEY

6.1.1 Approximately three weeks will be required to undertake the Level II survey of the garden, designed landscape features and buildings if architects plans showing internal details were available; without these plans the survey would take around four weeks. It is assumed that the existing contour survey data used by the client for the display of the current building layout and proposed development will be made available in CAD format for superimposition of the topographic survey data.

6.2 EVALUATION TRENCHING

6.2.1 Approximately two to three days will be required to complete this element.

6.2.2 OA North can execute projects at very short notice once an official order/confirmation has been received from the client. A team could mobilise with one to two weeks notice (to allow the necessary arrangements to be made to commence the task).

6.3 **REPORT**

- 6.3.1 Copies of the report, as outlined in *Section 3.4.1*, will be issued to the client and other relevant parties within two months of the completion of fieldwork, unless otherwise agreed prior to the commencement of fieldwork.

6.4 **ARCHIVE**

- 6.4.1 The archive will be deposited within six months following submission of the report, unless otherwise instructed.

7 **STAFFING**

- 7.1 The project will be under the direct management of **Stephen Rowland** (OA North Project Manager) to whom all correspondence should be addressed. The finds will be processed, studied and reported upon, either by, or under the guidance, of **Chris Howard-Davies** (OA North Finds Manager) who has extensive experience of finds from all periods, but particularly prehistoric and Roman material. All environmental sampling and assessment will be undertaken under the auspices of **Elizabeth Huckerby** (OA North Environmental Manager) who has unparalleled experience of palaeoenvironmental work in the North West and who heads an excellent team of environmental archaeologists. Any faunal remains will be studied by **Andrew Bates** (OA North Project Officer), who has a large amount of experience in undertaking the assessment and analysis of faunal assemblages of all sizes from a wide range of periods and locations. Current time-tabling precludes the allocation of specific members of staff at this juncture, but OA North can guarantee that the desk-based assessment and walkover survey will be undertaken by an OA North Supervisor experienced in such work and capable of carrying out projects of all sizes. Similarly, the evaluation will comprise a suitably-sized team of experienced archaeologists led by an OA North Project Officer or Supervisor. All OA North Project Officers and Supervisors are experienced archaeologists capable of undertaking small-, medium- and large-scale projects in a range of urban and rural situations.

8 **INSURANCE**

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

9 **REFERENCES**

English Heritage, 1991 *Management of Archaeological Projects*, second edition, London

English Heritage, 2006 *Understanding Historic Buildings, A Guide to Recording and Practice*

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

UKIC, 1990 *Guidelines for the Preparation of Archives for Long-Term Storage*, London

UKIC, 1998 *First Aid for Finds*, London

APPENDIX 3: CONTEXT REGISTER

Context No	Trench No	Description
100	4	Topsoil, 0.4m thick Mid-brown, malleable clay silt, no inclusions or finds were identified. Most likely redeposited over the area.
101	4	Subsoil, 0.52m thick Orange/brown, tacky sandy clay with no finds or inclusions identified. The deposit has been heavily disturbed, and may be a mix of redeposited subsoil and natural geology across the area.
102	1	Natural geology Mid-orange/brown, soft clay silt with >10% inclusions of small-medium sub-rounded and sub-angular stones and building material. It has been disturbed by garden activity across the area.
103	1	Cut for modern linear trench Measuring 2.27m in length, 1.94m in width and >0.84m in depth, the feature follows the north/south orientation of a timber-lined trench continuing to the south. It has sharp breaks of slope. And steep but slightly concave sides. It was not fully-excavated.
104	1	Brick wall The wall was aligned north/south, and measured 2.27m in length, 0.35m in width and 0.15m in height. It was constructed from unfrogged, machine made bricks, and in a stretcher bond to the east, and header bond to the west. It survived to two courses in height, and was bonded by a dark grey mortar with fine, light grey inclusions.
105	1	Foundation cut for wall 104 Measuring 2.27m in length and 0.47m in width. It was linear in plan, but not fully-excavated to view its profile. From what was visible, the cut had sharp breaks of slope and near-vertical sides.
106	1	Fill of foundation cut 105 , >0.3m thick Dark grey/brown, soft clay silt with 5% small inclusions. Redeposited topsoil used to fill foundation cut 105 , and abutting wall 104 .
107	1	Fill of modern linear 103 , >0.84m thick Dark grey/brown, soft clay silt, with >10% small, medium and large stone inclusions, and 5% brick, concrete, plastic and wood rubbish. Redeposited modern rubble and refuse deposited into the linear continuation of a timber-lined feature that continues to the south.
108	1	Topsoil, 0.4m thick Dark grey/brown, friable sandy silt with <5% small sub-rounded pebble inclusions. It extends across the trench and the north-east area of the walled garden.
109	1	Demolition deposit, >0.7m thick Mid- to dark grey/brown, soft clay silt with 5% glass, plastic, brick and sub-rounded pebble inclusions. Most likely the remnants of a glass house that has been demolished and deposited in the north-east of the walled garden. Abuts wall 110 .
110	1	Brick wall Measuring 2.04m in length, 0.35m in width, it was not fully-excavated. It was aligned east/west, and was the return of wall 104 . It was constructed from red, machine made bricks, near identical to wall 104 , and bonded with a light grey mortar. It has been heavily truncated; most likely when the glass house was demolished, and dump 109 created.
111	5	Tarmac road surface, 0.1m thick
112	5	Hardcore beneath road 111 , 0.33m thick Light grey, coarse gravel, consisting wholly of small to medium

		stone inclusions. Most likely for levelling before the tarmac was placed.
113	5	Foundation deposit, 0.2m thick Mid-blue/grey coarse gravel, with 70% medium to large stone inclusions. A foundation layer for the modern tarmac road III .
114	5	Subsoil, 0.56m thick Mid-brown, malleable clay with <5% small sub-rounded pebble inclusions. It has been heavily disturbed, and redeposited during groundworks and construction works in the general area.
115	5	Natural deposit Light brown, friable sandy clay with >10% small-medium sub-rounded pebble inclusions. It has been truncated by various landscaping and construction works in the general area.
116	6	Topsoil, 0.3m thick Mid-grey/brown, friable sandy silt with >5% small to medium sub-rounded pebbles, and <1% fragments of modern pottery, which was not retained. The topsoil has been heavily disturbed throughout, resulting from landscaping and the excavation of services across the area.
117	6	Subsoil, 0.45m thick Mid- to light orange/grey, soft silty sand with some clay elements, and <10% small to medium sub-rounded and sub-angular pebble inclusions. No finds were identified, although it has been disturbed by former groundworks in the area.
118	6	Natural deposit Light grey/orange, sticky and firm clay sand with >20% small, medium and large, sub-rounded limestone inclusions. The deposit has been truncated by former groundworks.
119	3	Natural deposit Light brown/grey, soft sandy clay with >10% medium sub-angular and <5% large angular rocks throughout.
120	3	Subsoil, 0.33m thick Mid-orange/brown, soft silty clay with <5% small sub-rounded pebble inclusions. No finds were identified.
121	3	Topsoil, 0.3m thick Dark grey/brown, friable silty clay with <5% sub-angular pebble inclusions. No finds were identified.
122	2	Topsoil, 0.4m thick Dark grey/brown, friable silty clay with <5% small sub-rounded pebble inclusions. No finds were identified.
123	2	Natural deposit Light brown/grey, soft sandy clay, with >5% small-medium sub-rounded pebble inclusions.
124	5	Topsoil, 0.3m thick Dark grey/brown, friable sandy silt with <5% small sub-rounded pebble inclusions. No finds were identified. It has been disturbed by former groundworks, and may be redeposited.