LOWTHER CASTLE, CUMBRIA

Updated Interim Statement

Oxford Archaeology North

July 2007

Sheppard Robson Architects
and the Lowther Estate

OA North Job No: L9866
NGR: NY 5220 2383

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Document Type: **Updated Interim Statement**

Client Name: **Sheppard Robson Architects and the Lowther Estate**

OA Job Number: L9866

National Grid Reference: **NY 5220 2383**

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1. BACKGROUND

1.1 CIRCUMSTANCES OF PROJECT

1.1.1 Following consultation with Sheppard Robson Architects and the Lowther Estate, the Lake District National Park Authority was asked to produce a brief for archaeological evaluation at Lowther Castle, in order to inform planning and listed building consent applications due to be submitted to the Lake District National Park Authority. In response to the brief, OA North produced a Project Design (*Appendix 1*), in accordance with which all work was carried out. Four trenches were placed within the confines of the castle itself, with five others placed to the south within an area of disused chicken sheds. An interim report (OA North, June 2007) reported the results of the first seven trenches, whilst this report is an updated version, including the results from two additional trenches, excavated in July 2007.

1.1.2 There is reason to believe that archaeological remains may exist on the site but little is known as to their extent and state of preservation. The architect has therefore been advised that an archaeological field evaluation should be carried out before any decision on the design of the development can be taken, in order to identify potential options for minimising or avoiding damage to potentially important archaeological deposits. In addition, the archaeological evidence will be used to inform the design of the proposed new structures.

1.1.3 This recommendation is in line with government advice as set out in the DoE Planning Policy Guidance on Archaeology and Planning (PPG 16) and Policy NE 17 of the Lake District National Park Local Plan.

1.1.4 The site is centre around national grid reference NY 5220 2383 (Fig 1). The underlying geology is limestone and argillaceous rocks.

1.1.5 The site of the proposed development lies within the site of the ruined castle at Lowther. The castle is a listed building, grade II* and lies in a registered park and garden (Grade II).

2. EVALUATION

2.1 INTRODUCTION

2.1.1 In total, nine trenches were examined (Fig 2). Five of the trenches (A, B, C, H and I) were positioned to the south of the extant castle or Lowther 3, whilst the remaining four (D to G) were within the boundary of Lowther 3.

2.1.2 Trenches A, B, C, H and I were positioned to examine the presence or absence of archaeological remains that might be related to the preceding structures to Lowther 3 (Lowthers 1 and 2). Trenches D-G were positioned to examine the survival of both Lowther 3 remains and any earlier structures relating to Lowther 2.

2.2 RESULTS

2.2.1 ***Trench A****:* Trench A (Fig 2) was situated between two of the former chicken sheds in a location thought to be occupied by the main stairs into the front entrance of Lowther 2. The trench was aligned north-east/south-west and measured 12m by 2m and was excavated to a maximum depth of 0.6m (216.21m OD). The present ground level (hereafter PGL) lay at a height of between 216.94m OD in the south-west and 216.49m OD in the north-east. Archaeological deposits in parts of the trench lay on or close to the current ground surface, which was covered by a thin mat of vegetation (less than 50mm in places), and continued down to 216.21m OD. The natural bedrock was also encountered on the surface (216.46m OD) and sloped down to the south-west.

2.2.2 Archaeological remains were found immediately below a thin layer of vegetation. These comprised an east/west aligned stone wall 1m wide and over 6m long (Plate 1). The wall had utilised the underlying bedrock as a foundation. The wall is thought to be part of Lowther 1 on stylistic grounds. The west end of the wall appeared to have been truncated by later activity. Deposits immediately to the south of the wall included probable eighteenth century glass, which presumably relates to levelling activity associated with either the building or demolition of the second castle. At the west end of the trench in a deposit cut by an iron pipe, two adjoining sherds of buff gritty ware were revealed which, by comparison to similar pottery found in Penrith, would date from the twelfth to fourteenth centuries, a date that would tie with the construct of Lowther 1 in the thirteenth century.

2.2.3 ***Trench B****:* was located to the south of the chicken sheds on a roughly north-south alignment. The trench measured 7.1m long by 2.5m wide and was excavated to a maximum depth of 0.59m below the PGL. The PGL lay at 216.25m OD. The first significant archaeological deposit lay at a depth of 0.47m below PGL (21.78m OD). Natural bedrock was found at the same level.

2.2.4 Directly below the concrete road surface was the bedrock over which was a thin layer of patchy silty clay containing mortar, indicating that any remains

had been removed in this area. Cutting into the bedrock was a north-east/south-west aligned narrow gully (Plate 2). Bone from the fill would indicate that this was not a natural feature, or at least had been utilised in the past.

2.2.5 ***Trench C:*** was located between the chicken sheds. The trench was east/west aligned and measured 15m long by 2m wide and was excavated to a maximum depth of 1.09 m (215.5m OD) below the PGL. The PGL lay between 216.43m OD at the west end of the trench and 216.62m OD to the east. The first significant archaeological deposit lay at a depth of 216.21m OD. The uppermost level of the natural bedrock lay at 216.18m OD.

2.2.6 Archaeological remains were situated directly below the concrete road surface. The remains of a substantial east/west aligned stone wall were observed (Plate 3). The wall extended from the western end of the trench for some 9m and was over 1m wide. The west end of the wall had been truncated in the past. However, mortar and rubble deposits suggested that it once extended a little further. Excavation at the east end of the trench indicated that the wall generally survived to one or two courses and had been placed directly on the bedrock bed. A gryke with the bedrock may have been utilised as a posthole, possibly as a support for scaffolding needed for construction purposes.

2.2.7 At the western end of the trench a north/south aligned wall was seen to adjoin the main east-west aligned wall to the south, possibly indicating that the south side was within the interior of the building. The position of the trench would indicate that the remains belonged to Lowther 2, something which the limited finds evidence would corroborate.

2.2.8 ***Trench D****:* was located within the kitchen area on the west side of the extant Lowther 3 castle. The trench was north/south aligned and measured 15m long by 2m wide and was excavated down to a depth of 1.64m below PGL (211.22m OD). The PGL lay between at 213.03m OD at the south end of the trench and 212.52m OD to the north. The first significant archaeological deposit lay at a depth of 212.07m OD.

2.2.9 The earliest feature was a north/south aligned pitched stone wall found at the north end of the trench. Lying next to the wall were two similarly aligned cast iron pipes. These features had subsequently been sealed below a layer of concrete onto which a wooden block floor surface had been laid Plate 4). The surface butted another earlier north/south aligned stone wall. These features had then been sealed below approximately 1m of demolition rubble and a silty clay levelling layer.

2.2.10 ***Trench E****:* was also north/south aligned and measured 10m by 4m wide and was excavated down to a depth of 2.5m (approximately 212.16m OD) below the present ground level. The PGL lay between at 214.76m OD at the north end of the trench and 214.66m OD to the south. The land also fell away to the west. The first significant archaeological deposit lay at 1.06m below PGL (approximately 213.63m OD). Due to the depth and instability of the trench all recording was conducted at ground level.

2.2.11 Revealed in this trench were the remains of a large barrel vault, the top of which had been destroyed and the interior backfilled. However, enough remained to see the construction technique and that later brick and stone shelves had been constructed along the sides of the vault (Plate 5). An intact passage way could be seen on the west side of the vault. The vault could have related to the Lowther 3 castle, but equally to one of the flanking structures associated with Lowther 2.

2.2.12 ***Trench F****:* was situated west of the central tower in Lowther 3. The trench was east/west aligned, measuring 9.6m long by 2.5m wide and was excavated down to a depth of 0.81m (215.07m OD) below the present ground level. The PGL lay at 215.82m OD. The first significant archaeological deposit lay 0.2m below PGL (215.71m OD). Due to the presence of cellars within the trench natural geology was not located. The features within the trench included a north/south aligned wall and an east/west wall butting it to the west. West of the north/south aligned wall was the roof of a backfilled vault (Plate 6). The presence of the vaults was only confirmed by a void in the side of a north/south aligned service trench that had cut through the vault ceiling.

2.2.13 ***Trench G****:* was situated east of the central tower in Lowther 3. The trench was aligned north/south and measured 4.6m long by 3.6m wide and was excavated down to a depth of 1.6m (214.33m OD) below the present ground level. The PGL lay at between 216m OD and 215.93m OD. The first significant archaeological deposit lay 0.16m below PGL (215.84m OD). Due the presence of a cellar within the trench natural geology was not located. A narrow below ground chamber was located in the south half of the trench formed by two east/west aligned walls. The base of the chamber was excavated down to a depth of 1.6m below PGL. This area was filled with a lower deposit consisting of mortar and plaster, which contained fragments of gold ?painted moulded plaster. The northernmost wall was supported on the south side by three north/south aligned buttresses (Plate 7). These buttresses were probably positioned to support an archway, the remains of which could be seen on a stub wall projecting from the east wall of the tower. Partially seated upon the wall and the buttresses was the remains of a brick floor. This structure would have originally filled the floor space below the arch. North of the wall the floor was composed of stone covered by mortar. The below-ground chamber had been backfilled with a demolition layer of rubble, a thin band of which sealed the remainder of the trench.

2.2.14 ***Trench H****:* was excavated through concrete, located to the north of the northernmost chicken shed, targeting the eastern wing of Lowther 2. The trench was aligned broadly east/west, measured 19.7m by 2m in plan and was excavated to a maximum depth of 0.63m. The PGL was at a height of between 216.13m OD, at the western end of the trench, and 216.31m OD, at the eastern. The first significant archaeological deposit was encountered at a height of 215.74m OD and the natural geology was encountered at a height of 215.77m OD.

2.2.15 The concrete layer sealed a levelling deposit, which directly overlay the natural clay geology. A possible wall north/south foundation (Plate 8), was located towards the middle of the trench, with an area of possible wall tumble

to its west. A somewhat questionable area of cobbling was located to the east of the possible wall.

2.2.16 ***Trench I***: was located to the west of the northernmost chicken shed, and targeted the western wing of Lowther 2. The trench was aligned broadly east/west, measured 14.7m by 2m in plan, and was excavated to a maximum depth of 0.85m. The PGL was at a height of between 215.59m OD, at the western end of the trench, and 215.76m OD, at the eastern. The uppermost level of the natural bedrock lay at 216.18m OD.

2.2.17 The trench was excavated through concrete at its eastern end and topsoil at its western end. The concrete overlay two levelling deposits, which sealed the bedrock (Plate 9). The topsoil overlay a naturally-derived layer of bedrock fragments in a matrix of clay, which directly overlay the bedrock. No archaeological features were observed within this trench.

3. DISCUSSION

3.1.1 Eight of the nine trenches revealed below ground archaeological features. Trenches A, B, C and H which were positioned south of the present castle and targeted areas thought to contain the remains of either Lowther 1 and or Lowther 2, produced the remains of structures and deposits. Trenches A and C both revealed walls, which in the case of Trench A not only survived virtually on the surface, but given the presence of twelfth to thirteenth century pottery from an associated deposit might well relate to Lowther 1; the walls within Trench C were almost certainly those of Lowther 2. The remains of a possible wall foundation were revealed in Trench H, in broadly the position extrapolated from Richardson's survey of 1754. A deposit containing mortar and a channel cut into the bedrock were the only features within Trench B, suggesting that any features relating to the castles that might have once existed had been truncated by later activity. No archaeological features were revealed in Trench I and it is possible that the levelling carried out for the present concrete surface would have truncated any such remains.

3.1.2 Trenches D to G revealed a variety of features, which in the main related to Lowther 3, but with one exception. Trench D revealed a heavy duty wooden block floor, which was probably once part of the goods delivery area for the kitchen area within Lowther 3. Below and to the east of this feature were earlier walls, albeit part of Lowther 3. Within Trench E was revealed a north/south aligned barrel vaulted structure, the top of which had been destroyed to allow it to be backfilled when the interior of the castle was demolished. An intact side chamber could been seen to the west. It was not clear whether the vault related to the Lowther 3 castle or Lowther 2 as the trench was sited over the position of the western flanking building belonging to Lowther 2. Trenches F and G both revealed intact cellar structures to the east and west of the central Lowther 3 tower respectively.

APPENDIX 1: PROJECT DESIGN

1 BACKGROUND

1.1 CIRCUMSTANCES OF PROJECT

1.1.1 Following consultation with Sheppard Robson Architects and the Lowther Estate, the Lake District National Park Authority has been asked to produce a brief for archaeological evaluation at Lowther Castle. This evaluation will be used to inform planning and listed building consent applications due to be submitted to the Lake District National Park Authority later this month. This brief deals solely with this preliminary stage of investigation.

1.1.2 There is reason to believe that archaeological remains may exist on the site but little is known as to their extent and state of preservation. The architect has therefore been advised that an archaeological field evaluation should be carried out before any decision on the design of the development is taken, in order to identify potential options for minimising or avoiding damage to potentially important archaeological deposits. In addition, the archaeological evidence should be used to inform the design of the proposed new structures.

1.1.3 This recommendation is in line with government advice as set out in the DoE Planning Policy Guidance on Archaeology and Planning (PPG 16) and Policy NE 17 of the Lake District National Park Local Plan.

1.1.4 The site is centre around national grid reference NY 5220 2383. The underlying geology is limestone and argillaceous rocks.

1.2 ARCHAEOLOGICAL BACKGROUND

1.2.1 The site of the proposed development lies within the site of the ruined castle at Lowther. The castle is a listed building, grade II* and lies in a registered park and garden (Grade II).

1.2.2 There are a number of other sites or finds in the immediate area which were identified during the survey of Lowther Park in 1997 (see references below). Further details of these sites can be obtained from the Lake District National Park Authority, Murley Moss, Oxenholme Road, Kendal, LA9 7RL. Tel. 01539 792712/Fax. 01539 740822/Email Eleanor.Kingston@lake-district.gov.uk

1.3 OXFORD ARCHAEOLOGY NORTH (OA NORTH)

1.3.1 OA North has considerable experience of the evaluation and excavation of sites of all periods, having undertaken a great number of small and large scale projects throughout Northern England, including Cumbria, during the past 20 years. OA North is currently acting as the archaeological consultants for Sheppard Robson and the Lowther Estates. In this capacity they are also presently engaged with a survey of the gardens. In the past OA North have undertaken other evaluation and survey work within the Lowther Estate. OA North is an Institute of Field Archaeologists (IFA) registered organisation, number 17, and all its members of staff operate subject to the IFA Code of Conduct. A rigorous approach is taken towards health and safety and our staff are CSCS accredited. OA North are insured for third party liability and carry Public, Employers and Professional indemnity.

2. AIMS AND OBJECTIVES

2.1 PROJECT AIMS

2.1.1 The current location of proposals would severely damage or destroy any archaeological remains which may be present on the site. It has therefore been recommended that an archaeological evaluation should take place to obtain further information on the presence and preservation of any archaeological deposits to inform the design of the proposals.

2.1.2 The objectives of the evaluation should be to gather sufficient information to establish presence/absence, character, extent, state of preservation, date, condition and significance of any archaeological deposits within the areas of proposed development.

2.1.3 An adequate representative sample of all areas where archaeological remains are potentially threatened will be studied.

2.1.4 The preferred option is the preservation *in situ*, wherever possible, of significant archaeological features and deposits, whether through design modification or other mitigation measures. Only where preservation *in situ* proves impracticable will the option of full excavation be considered.

2.2 REPORT AND ARCHIVE PRODUCTION

2.2.1 The evaluation will result in a report produced to the standards set out in the English Heritage guideline document *Management of Archaeological Projects* (2nd edition, 1991b) (hereafter MAP 2) including:

- a concise non-technical summary of the results;
- a description of the methodology employed;
- a location plan at an appropriate scale;
- a summary of the historical and archaeological background;
- excavation plan(s) and section(s) at an appropriate scale showing location and position of trenches dug and features located;
- section drawings should include heights OD;
- excavation plan(s) should include OD spot heights for all principal strata and features;
- a list of and date for any significant finds recovered;
- photographs where appropriate;
- a description of archaeological features and deposits identified;
- an interpretation of the results and of their potential archaeological significance;
- a statement of the likely archaeological implications of the proposed development;
- a full bibliography of sources consulted and a list of any further sources identified but not consulted;
- an index to the project archive;
- a copy of the brief and agreed project design and an indication of any variations.

2.2.2 The objective account of the archaeological evidence recovered will be clearly distinguished from the interpretation of those features. The methodology used will be critically reviewed.

2.2.3 Any recommendations for mitigating measures will be presented in the form of a separate annexe to the main report.

2.2.4 Four copies of the evaluation report will be deposited with the National Park Authority, on the understanding that it will be made available as a public document after an appropriate period (not exceeding 6 months from the completion of fieldwork). Copies will be forwarded to the National Monuments Record.

2.2.5 The results of the work should be published in an appropriate journal or other publication and will include an account of any structures located and full details of significant finds, illustrated as appropriate. The National Park Authority will be notified with details of the place and date of publication.

2.2.6 In line with Lake District Historic Environment Record's (LDHER) policy with regard to the Online Access to Index of Archaeological Investigations (OASIS) project, OA North will complete the online OASIS form at http://ads.ahds.ac.uk/project/oasis/. and will contact the LDHER prior to completing the form. It is understood that once a report has become a public document by submission to or incorporation into the HER, the LDHER may place the information on a web-site. Permission in writing agreeing to this procedure will be granted as part of the process of submitting the report to the archaeological officer at the LDHER.

2.2.7 The project archive will be prepared in accordance with the recommendations of the *Management of Archaeological Projects 2nd Ed.* (1991) and will be deposited in an appropriate local institution, in a format to be agreed with that institution. The National Park Authority will be notified of the arrangements made. Any finds of archaeological interest will be appropriately conserved and deposited in an appropriate institution: any finds which cannot be so deposited should be fully analysed and published.

2.2.8 In addition to the above, interim reports will be produced for the client on request.

3. METHOD STATEMENT

3.1 FIELDWORK

3.1.1 All aspects of the evaluation will 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*.

3.1.2 Land use at the time fieldwork is carried out will influence the methods used. The techniques chosen will be selected to cause the minimum amount of destruction and will comply with all relevant health and safety regulations.

3.1.3 A separate desk based assessment is not required. However, the information that has been collated in the past by OA North will be used within this study, to place this evaluation in its context and will be included in their report. All of those working on site will be made aware of the significance and history of the site.

3.1.4 A programme of trial trenching will take place in order to establish the extent, date, nature and preservation of archaeological deposits. The locations and proportions of trenches have been established following a site visit and avoid existing standing buildings. The locations of the trenches are detailed on the enclosed map (due to drawing restrictions they are not to scale).

3.1.5 The location and lengths of the trenches have been agreed, however in some circumstances it may be necessary to extend them in order to confirm the extent of the archaeological remains. This will be agreed with the National Park Archaeologist in advance.

3.1.6 Three trenches are targeted in the probable location of Lowther I and II, in order to determine if the proposed underground gallery will impact on this site (Trench A: 1.7m x 10m; Trench B: 1.7m x 5m; Trench C: 1.7m x 15m).

3.1.7 Two trenches will be excavated in the area of the proposed performance hall, within the office wing of Smirke's Lowther Castle and the site of an earlier building associated with Lowther II (Trench D: 1.7m x 15m and Trench E: 1.7m x 10m).

3.1.8 Two trenches will be excavated adjacent to the tower staircase to establish the survival of Lowther III (Smirke's Castle). Although clear drawings and plans of Smirke's design of the castle exist it is necessary to ascertain whether his internal divisions were indeed followed and whether any rooms in this area have basements. This information is required to inform the design of the link from the underground gallery to the lift shaft in the staircase tower (Trench F and G; 1.7m x 10m). There are clear health and safety issues in this area and it will be necessary to address and resolve these before work take place. This will influence the location and length of trenches on site.

3.1.9 Initial topsoil removal will be undertaken by machine to the level of the first significant archaeological resource or undisturbed natural deposits, whichever is encountered first, but subsequent cleaning and investigation will be by hand. Excavations will employ a tracked 360º excavator of sufficient power to accomplish the job efficiently, and a smaller machine if access is not feasible for the first machine. A wide, toothless ditching bucket will be preferred but the nature of the deposits may require the use of a toothed bucket or breaker. The work will be supervised by a suitably experienced archaeologist. Spoil will stored adjacent to the trenches, subsoil being kept separate from topsoil. The machining of the overburden will take place as a separate initial phase of works. The tracked excavator will then be off-hired and excavation and recording will take place. Once approval to backfill has been obtained at the conclusion of works, the trenches will probably be backfilled by a smaller machine.

3.1.10 A sufficient sample of features and deposits would normally be investigated to understand the full stratigraphic sequence in each trench, down to natural deposits (where it was safe to do so). However, this would not necessarily require the excavation of the entire trench to natural, and excavation would not proceed if there was the possibility of compromising the future interpretation of the archaeology or affecting the integrity of structural deposits. All deposits should be fully recorded on appropriate context sheets, photographs, scale plans and sections.

3.1.11 Human remains will 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.

3.1.12 It should be noted that no archaeological deposits will be entirely removed from the site unless their excavation is necessary for reasons of artefact/sample recovery or in order to reveal other features and/or deposits they seal. No archaeological feature will be excavated if it is deemed desirable to preserve it *in situ*.

3.1.13 All information identified in the course of the site works will be recorded stratigraphically, using a system, adapted from that used by the Centre for Archaeology Service of English Heritage. Results of all field investigations will be recorded on OA North's *pro forma* context sheets. All features and deposits will be planned at an appropriate scale and all trench sections will be drawn, unless the stratigraphy is substantially similar, in which case a representative section will be drawn. Black and white, colour and digital photographs will record the trenches and illustrate individual features. The elevation of the underlying natural deposits will be recorded as will the elevation of any archaeological horizons. Primary records will be available for inspection at all times.

3.1.14 An assessment of the artefact content of the topsoil will be required. Artefacts will be collected from the surface of the trench prior to machining commencing and the spoil heaps and trench will be visually scanned for artefacts after each successive spit of topsoil/subsoil is removed by the machine. If changes in the nature of the overburden are noted, the artefacts will be separated by deposit during collection.

3.1.15 Finds recovery and sampling programmes will be in accordance with current best practice (following IFA and other specialist guidelines). All artefacts and ecofacts will be treated in accordance with OA North standard practice, which is cognisant of IFA and UKIC Guidelines. In general this will mean that (where appropriate or safe to do so) finds are

washed, dried, marked, bagged and packed in stable conditions; no attempt at conservation will be made unless special circumstances require prompt action. In such a case guidance and/or expertise will be sought from a suitably qualified conservator. OA North will assess the finds for conservation after fieldwork has been completed, but the cost of conservation must be born by the client (*Section 7*).

3.1.16 Samples will be collected for artefact retrieval should this prove necessary, for example, in the case of deposits associated with metalworking being identified.

3.1.17 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, 1996/7.

3.1.18 The evaluation will provide a predictive model of surviving archaeological remains, detailing zones of relative importance against known development proposals. An impact assessment will be provided, wherever possible.

3.1.19 The evaluation will include a programme of sampling of appropriate materials for environmental and/or other scientific analysis, including:

- 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 will 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 will 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.

3.1.20 The field team will be advised and supported by Oxford Archaeology's in house environmental specialists. A strategy will be devised on site when the nature of any archaeology is known. In essence, environmental samples (bulk samples of 30 litres volume, to be sub-sampled at a later stage) will be collected from suitable deposits (ie. the deposits are reasonably well dated and are from contexts the derivation of which can be understood with a degree of confidence). Special attention will be paid to sampling securely dated deposits and features and, specifically, any waterlogged and/or burnt deposits encountered. If 30 litres is not available to sample then the entire deposit will be removed. A contingency charge (*Section 7*) would apply for each sample that is processed and assessed (restricted at this stage to establishing the presence or absence of significant material), following a strategy agreed with LDHER.

3.1.21 As it is not currently known what, if any, palaeonenvironmental analysis will be required, the cost of this work has not been included in the fixed cost for the evaluation. Contingent costs for this work and for any scientific dating that might be required have been quoted in *Section 7*.

3.4 HEALTH AND SAFETY

3.4.1 OA North recognises its responsibilities with regard to health and safety, and will establish safe working practices in accordance with current legislation. OA North provides a Health and Safety Statement for all projects and maintains a Unit Safety policy. All site procedures are in accordance with the guidance set out in the Health and Safety Manual compiled by the Standing Conference of Archaeological Unit Managers (1991). Our site staff are CSCS accredited and senior staff are qualified First Aiders. All staff are issued with Personal Protective Equipment and each team with a telephone and a first aid kit. OA North will liaise with all parties to ensure all site specific health and safety regulations are met. A risk assessment will be completed in advance of any on-site works, which will be made available with our method statement.

3.4.2 Site access will be well regulated and notification of hazards such as services and contaminated ground will be obtained.

4. RESOURCES AND PROGRAMMING

4.1 STAFF AND TIMETABLE PROPOSALS

4.1.1 The overall management of the project will be undertaken by Jamie Quatermaine to whom all correspondence should be addressed. However, day to day management of the evaluation element of the project may be undertaken by Fraser Brown (OA North Senior Project Manager).

4.1.2 The trial trenching will probably be directed by an OA North Project Officer (to be determined). OA North Project Officers are experienced field archaeologists who have undertaken supervision of numerous small - and large-scale evaluation and excavation projects. The site director will be assisted by an archaeological assistant.

4.13 It is expected that the fieldwork could be achieved within two working weeks. The assessment of any finds and environmental samples would be undertaken following the completion of fieldwork. The project archive will be compiled and a MAP 2-style evaluation report will be produced following the completion of the fieldwork and the assessment of the finds and environmental samples.

4.1.4 The processing and analysis of any palaeoenvironmental samples will be carried out by Elizabeth Huckerby BA, MSc (OA North Project Officer), who has extensive experience of the palaeoecology of Northern England, having been one of the principal palaeoenvironmentalists in the English Heritage-funded North West Wetlands Survey.

4.1.5 Assessment of any finds from the excavation will be undertaken by Chris Howard-Davis or an appropriate specialist.

4.1.6 If finds or deposits are encountered that require specialist input, OA North will use Oxford Archaeology's in-house specialists out of preference, but external specialists may also be commissioned, subject to the agreement of the LDHER, should no in house expertise be available.

4.1.7 Normally OA North staff work a 37.5 hours week, between 8.00 am and 5.00 pm, Monday to Friday, though adjustments to hours may be made to maximise daylight working time in winter and to meet travel requirements. It is not normal practice for OA North staff to be asked to work weekends or bank holidays, but OA North would be happy to work extended hours following agreement of overtime rates (a contract variation).

5. PROJECT MONITORING

5.1 PROCEDURE

5.1 The National Park Archaeologist will be responsible for monitoring the evaluation. A minimum of one week's notice of the commencement of fieldwork will be given by the archaeological contractor to the Lake District National Park Authority so that arrangements for monitoring can be made.

5.2 Site inspections will be arranged so that the general site stratigraphy can be assessed in the initial stages of trial trenching, and/or so that the site can be inspected when fieldwork is near to completion but before any trenches have been backfilled. OA North will ensure that any significant results are brought to the attention of the client and the LDHER Archaeologist as soon as is practically possible.

5.3 The involvement of the Lake District National Park Authority will be acknowledged in any report or publication generated by this project.

6. REFERENCES

Lancaster University Archaeological Unit, March 1997, 'Lowther Park, Cumbria: Archaeological Survey Report'.

Lancaster University Archaeological Unit, June 1997, 'Lowther Park, Cumbria: Archaeological Survey Report'.

The Landscape Agency, July 2002, 'The Castle and Gardens of Lowther, Cumbria: Conservation Plan'.

Archival Research undertaken by Landscape Agency (Camilla Beresford).

ILLUSTRATIONS

LIST OF FIGURES

LIST OF PLATES

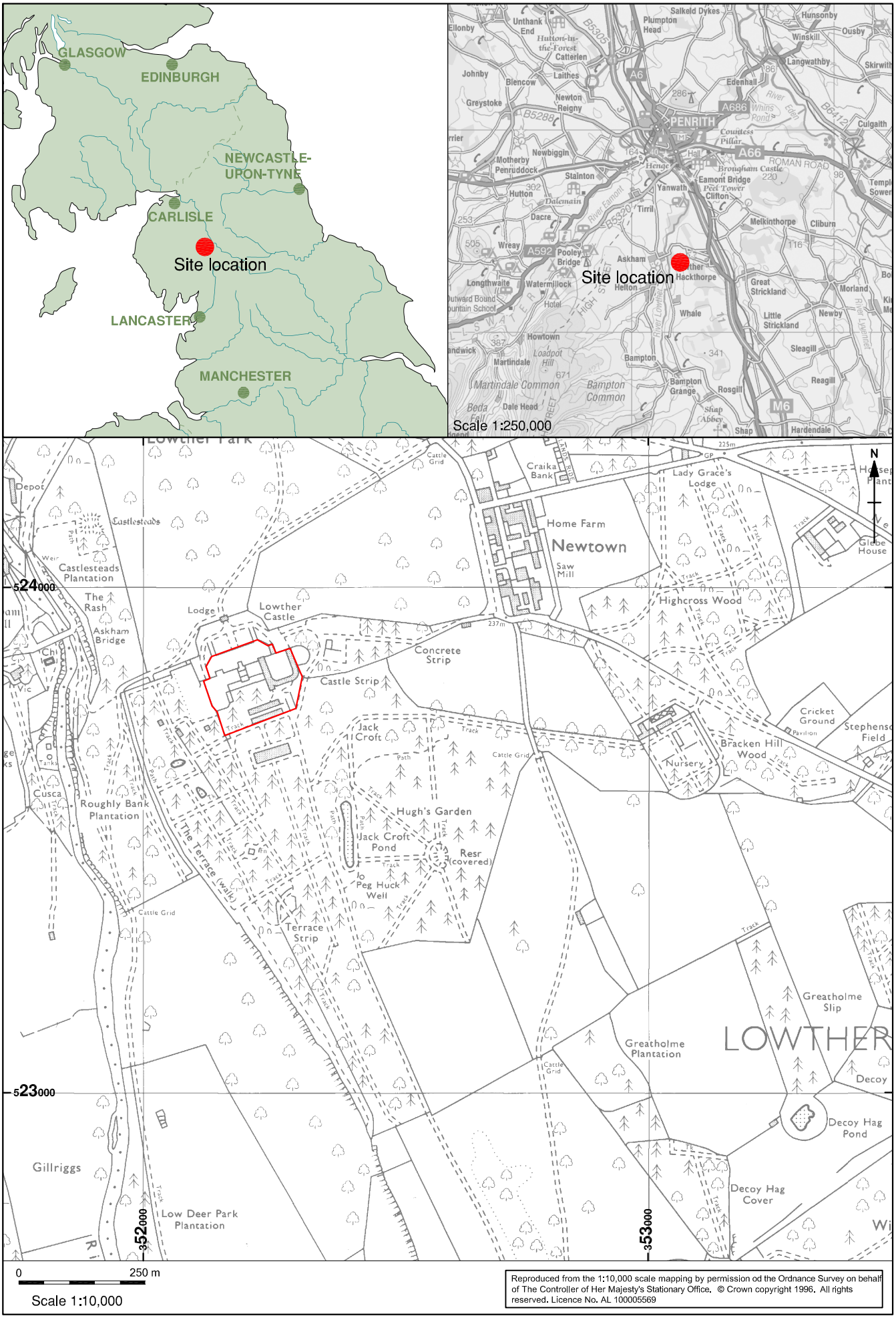

Figure 1: Location map

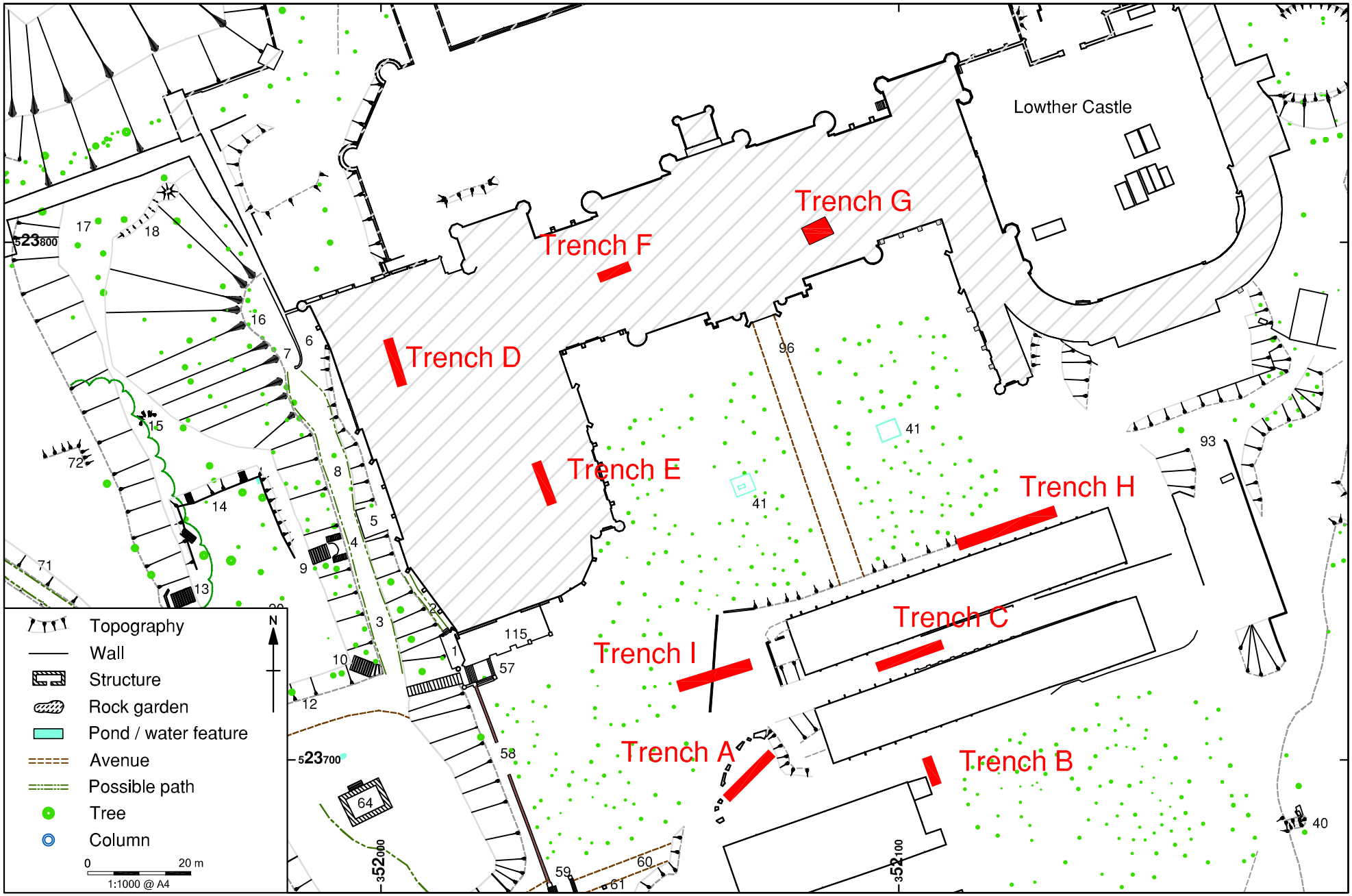

Figure 2: Trench Locations at Lowther Castle

Plate 1: Trench A showing east-west aligned wall

Plate 2: Trench B, the rock cut gully can be seen extending from the middle of the far section down to the left

Plate 3: Trench C viewed from the east.

Plate 4: Trench D showing wood block floor and north/south aligned wall on right side of trench.

Plate 5: Trench E viewed toward the east. The remains of the vault can be seen with the shelving immediately below.

Plate 6: Trench F viewed toward the west. The vault ceiling can be seen in the rear two thirds of the trench.

Plate 7: Trench G viewed toward the north-west showing the buttressed wall and brick surface.

Plate 8: South-facing view of possible wall foundation in Trench H, represented by the concentration of stones.

Plate 9: West-facing view of bedrock in Trench I