

# **SIZERGH CASTLE, CUMBRIA**



## **Archaeological Recording of a Culvert and Well**



**Oxford Archaeology North**

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## SUMMARY

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In May 2006, Oxford Archaeology North (OA North) were commissioned by the National Trust to undertake a programme of recording during the course of renewal works for services at Sizergh Castle, Cumbria (SD 49850 88000). Sizergh Castle, a National Trust property, is located approximately 3km to the south of Kendal, on the west side of the Kent valley.

During works on the terrace overlooking the rock garden, to the north-east of the North Wing of the Castle, a large capstone was revealed. This was removed, revealing a broadly north-west/south-east aligned culvert, with two side culverts opposite each other, aligned north-east/south-west. The main culvert was constructed of unmortared roughly-finished limestone blocks; the base was likely to have been of slate, although at the time of recording, this was obscured by a layer of large pebbles and gravel introduced by disturbance associated with the present works. An internal recess, observed in the north-western part of the enclosed culvert, may have been a space to allow individuals undertaking internal maintenance work to turn round. The side culverts, adjoining the main structure at a slightly raised level, were of identical construction, with their bases lined with slate. The south-western side culvert appeared to be heading towards a well, located against the wall of the North Wing, whilst that to the north-east, together with several parallel structures, their entrances revealed by flashing a torch north-westwards up the culvert, ran in the direction of the limestone rock garden. To the south-east, the main culvert continued for 7.7m, before reaching the line of an eastern projection of the central range of the Castle. Investigation works using dye to trace the course of the culvert were undertaken, which proved that the culvert issued into the lake, although the source of the culvert remains unknown.

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## ACKNOWLEDGEMENTS

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Oxford Archaeology North would like to thank Jamie Lund of the National Trust for commissioning the project, for his help with excavating the culvert and for providing background information and plans.

The excavation and recording was undertaken by Paul Clark, with Marc Storey undertaking the Total Station survey. This report was written by Paul Clark, with the drawings prepared by Marc Storey and Marie Rowland. Stephen Rowland, who also edited the report, managed the project.

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## 1. INTRODUCTION

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### 1.1 CIRCUMSTANCES OF PROJECT

1.1.1 During the course of renewal works for services at Sizergh Castle, Cumbria (SD 49850 88000; Fig 1), a National Trust property, a large capstone was revealed. This was removed, revealing a broadly north-west/south-east aligned culvert. Oxford Archaeology North (OA North) were contacted at this point by the National Trust archaeologist for the North West, Jamie Lund, and asked to attend the site to expose and record more of the culvert.

### 1.2 LOCATION, TOPOGRAPHY AND GEOLOGY

1.2.1 Sizergh Castle is located approximately 3km to the south of Kendal, on the west side of the Kent valley, in the parish of Helsington (Fig 1). It is to the west of the A6 Kendal to Lancaster road (now partly subsumed by the A591/A590), on a site which slopes gently down to the east and north. The exposed culvert was located on the terrace overlooking the rock garden, to the north-east of the North Wing of the Castle.

1.2.2 The solid geology of the area comprises limestone, dated to the Dinantian phase of the Carboniferous period (British Geological Survey 1982). The overlying soil comprises typical brown earths of the Denbigh 1 Series (Ordnance Survey 1983).

### 1.3 HISTORICAL BACKGROUND

1.3.1 A measured survey of the castle and reassessment of its architectural history has been undertaken by English Heritage (English Heritage 2000) and the National Trust holds an up to date file on the Castle Garden and Park (compiled February 2004), which together hold a wealth of information. It would be inappropriate to reproduce such details here and, instead, a brief summary, gleaned from these sources, follows.

1.3.2 Sizergh was granted by Henry II to Gervase Deincourt in c 1170-1180 and, in 1239, Elizabeth Deincourt, great-grand-daughter of Gervase, became the sole heiress and was married to Sir William Strickland, the descendants of whom have held Sizergh ever since. In c 1310 the first house was built, with a great hall and service block, whilst in the middle of the fourteenth century a four-storey solar tower was added. A licence to enclose demesne lands for a park at Sizergh was granted by Edward III in 1335 and, in 1362, a patent was granted to empark 300 acres of woodland at Helsington, Levens and Hackthorpe. The park continued to be stocked with fallow deer up to the eighteenth century.

1.3.3 In 1555 a major remodelling of the medieval house was undertaken, creating the present U-shaped house. In 1558 a kitchen was added next to the central range, effectively starting the North Wing, which was extended in 1562 with the addition of domestic offices and servants rooms. Large amounts of garden

work were undertaken between 1926 and 1928, including the construction of the rock garden, the enlarging of the lake, the building of the present terraces and steps and the laying out of a Dutch garden below the main lawn.

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## 2. METHODOLOGY

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### 2.1 FIELDWORK

- 2.1.1 This project was instigated at very short notice and so no formal project design was written. Standard OA North excavation and recording techniques were used throughout, complying with the relevant standards and procedures of the Institute of Field Archaeologists, and generally accepted best practice.
- 2.1.2 The results of the monitoring and investigation were recorded on *pro-forma* recording sheets, and a photographic record, using black and white print and colour slide film, was maintained throughout the project. The visible elements of the culvert were surveyed using a Zeiss total station with an electronic distomat, and the results were processed in AutoCAD, in combination with existing building plans provided by the client, to produce the site drawings.

### 2.2 ARCHIVE

- 2.2.1 The archive will be deposited with the National Trust Sizergh Castle Archive and copies of the report will be submitted to the Cumbria Historic Environment Record and the Cumbria County Record Office, both in Kendal, by the National Trust.



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### 3. RESULTS

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#### 3.1 FIELDWORK RESULTS

- 3.1.1 Upon arrival on site, it was observed that two limestone capping slabs had been removed, revealing a stone-built culvert (Plate 1), c 0.8m below the modern ground surface. Limited excavation in the area of the present works revealed a further three slabs at the eastern end of the exposed area (Fig 2, Plate 2). The area of the removed slabs was 1.25m in length, with the exposed culvert measuring 0.56m wide and 0.85m deep, to the bottom of the remaining slabs.
- 3.1.2 The culvert was aligned north-west/south-east, with two apparently perpendicular side culverts built opposite each other and joining the main culvert at the south-eastern end of the area of the removed slabs (Plate 3). The main culvert was constructed of unmortared roughly-finished limestone blocks, averaging 0.3m long by 0.15m thick. The base, within which water ran, was likely to have been of slate construction, similar to that of the side culverts (see below) but, at the time of recording, it had been obscured by a layer of large pebbles and gravel that were introduced as a result of collapse associated with the present groundworks on site. The side culverts were of identical construction and measured 0.32m wide by 0.3m deep, with their slate-lined bases 0.6m above that of the main culvert. The south-western side culvert appeared to be heading towards a well, located against the wall of the North Wing, whilst the north-eastern side culvert was running off towards the rock garden. The entrances to at least four other, probably parallel, north-eastward culverts were visible when a torch was shone down the north-western part of the culvert. However, at the time of recording, these culverts lay beyond the area of collapse and could not be more fully described.
- 3.1.3 Health and Safety constraints meant it was not possible to enter the culvert, although the area of the removed slabs afforded the opportunity to examine the internal features of the culvert. To the south-east the culvert continued for 7.7m (measured by laser distance meter), before abruptly reaching an apparent dead end (Plate 4). This was where the line of the culvert met the eastern end of the central range of the Castle, confirmed by surface survey. A metre to the north-west of the area of the removed slabs, two recesses were observed opposite each other in the side walls (Plate 5); that on the north-eastern side was substantially larger than the recess on the south-western side. No further internal features could be seen to the north-west, due to an area of recent collapse, although prior to collapse, it was estimated that the culvert stretched at least 25-30m to the north-west (Jamie Lund *pers comm*).
- 3.1.4 Investigation works using dye to trace the course of the culvert were undertaken, which proved that the culvert issued into the lake to the south-east of the Castle, although the north-western source of the culvert remains unknown. Although dye was also flushed through the kitchen plumbing, there was no indication that the present wastewater system fed into the culvert.

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## 4. DISCUSSION

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### 4.1 DISCUSSION

- 4.1.1 The culvert was built to a high standard and remains in good working order, although its ultimate source is unknown. The opposing side culverts are somewhat enigmatic, although it seems most likely that the south-western one ran from the well against the north wall of the North Wing, probably acting as an overflow for the well. The function of the north-eastern side culvert is suggested by the presence of the parallel culverts observed running from the north-west section of the culvert prior to the roof collapse; these side culverts are highly likely to have carried excess water from the main culvert to the area of the limestone rock garden, to reduce the possibility of flooding to the main house. It is also possible that these north-eastern side culverts were designed to provide irrigation to the adjacent garden areas although the water in the main culvert would have to be far deeper to flow out of this side culvert (during the course of the present investigation, which occurred after two days of heavy rain, the water was only 0.1 m deep in the main culvert). The internal recesses, observed in the north-western part of the enclosed culvert, may have been a turning space to allow individuals undertaking internal maintenance to turn round.
- 4.1.2 The date of the culvert and its role within a wider water management scheme is far from clear. The south-eastern end of the culvert appears to stop against the foundations for an eastern projection of the central range, although evidently this does not inhibit the flow of the water; it is possible that the culvert runs north-eastward around the foundations of this projection, before resuming its original course. This could suggest that the culvert pre-dates this extension to the central range, with some remodelling required during the construction of it, although equally, the culvert may have been built up to the foundations of the pre-existing structure, which it then avoided. The fact that the culvert runs so closely parallel to the North Wing would certainly suggest that it post-dates these sixteenth century structures. Indeed, the alignment of the culvert would suggest that it was designed to maintain a flow of water from the northern lake to the southern, perhaps originally allowing any waste products from the kitchens and possibly also the central range (presumably connected via side culverts similar to those recorded), to be flushed into the southern lake. A water feature in the position of the southern lake is thought to date from at least the seventeenth century (National Trust 2004), whilst the origin of the northern lake is unknown; both may have derived from the original medieval moat. However, no lakes are shown on the 1771 estate plan (English Heritage 2000).
- 4.1.3 It is of interest to note that the course of a second culvert, running west of and broadly parallel to, the present investigated example, was also traced and was proven to run between a sluice gate on the southern edge of the northern lake, beneath the rock garden, and into the eastern part of the southern lake, which is known to pre-date the major landscaping works undertaken in 1926 (Jamie Lund *pers comm*; Fig 3). It is known that there were a series of mid-nineteenth

century water features within the rock garden; these were fed by the northern lake (English Heritage 2000) and it is, therefore, possible that the identified culverts are related to this system, rather than to any earlier features.

## 5. BIBLIOGRAPHY

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### 5.1 PRIMARY SOURCES

British Geological Survey, 1982 Lake District Sheet 54°N - 04°W Solid Geology, 1:250000 Series

Ordnance Survey, 1983 Soil Survey of England and Wales

### 5.2 SECONDARY SOURCES

English Heritage, 2000 Sizergh Castle, Helsington, Cumbria: Architectural Survey Report

National Trust, 2004 Sizergh Castle garden and park information file, unpubl rep

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## 6. ILLUSTRATIONS

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### 6.1 FIGURES

Figure 1: Site location map

Figure 2: Plan of culvert

Figure 3: Plan showing the conjectural and known route of the two culverts identified at Sizergh Castle

### 6.2 PLATES

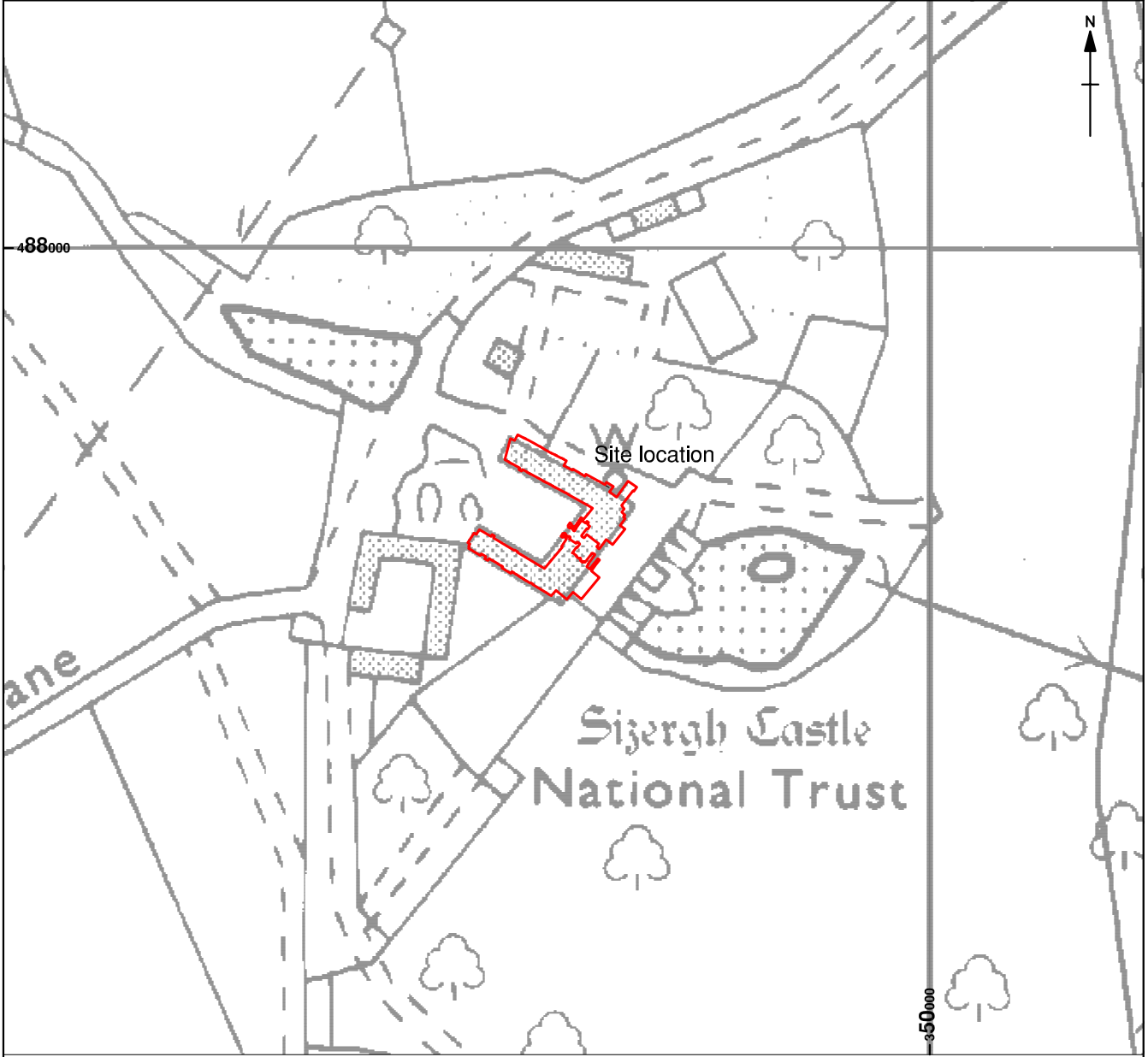
Plate 1: South-east-facing view of culvert

Plate 2: South-west-facing view of culvert

Plate 3: South-west-facing view of southern side culvert

Plate 4: South-east-facing view inside culvert

Plate 5: North-west-facing view inside culvert



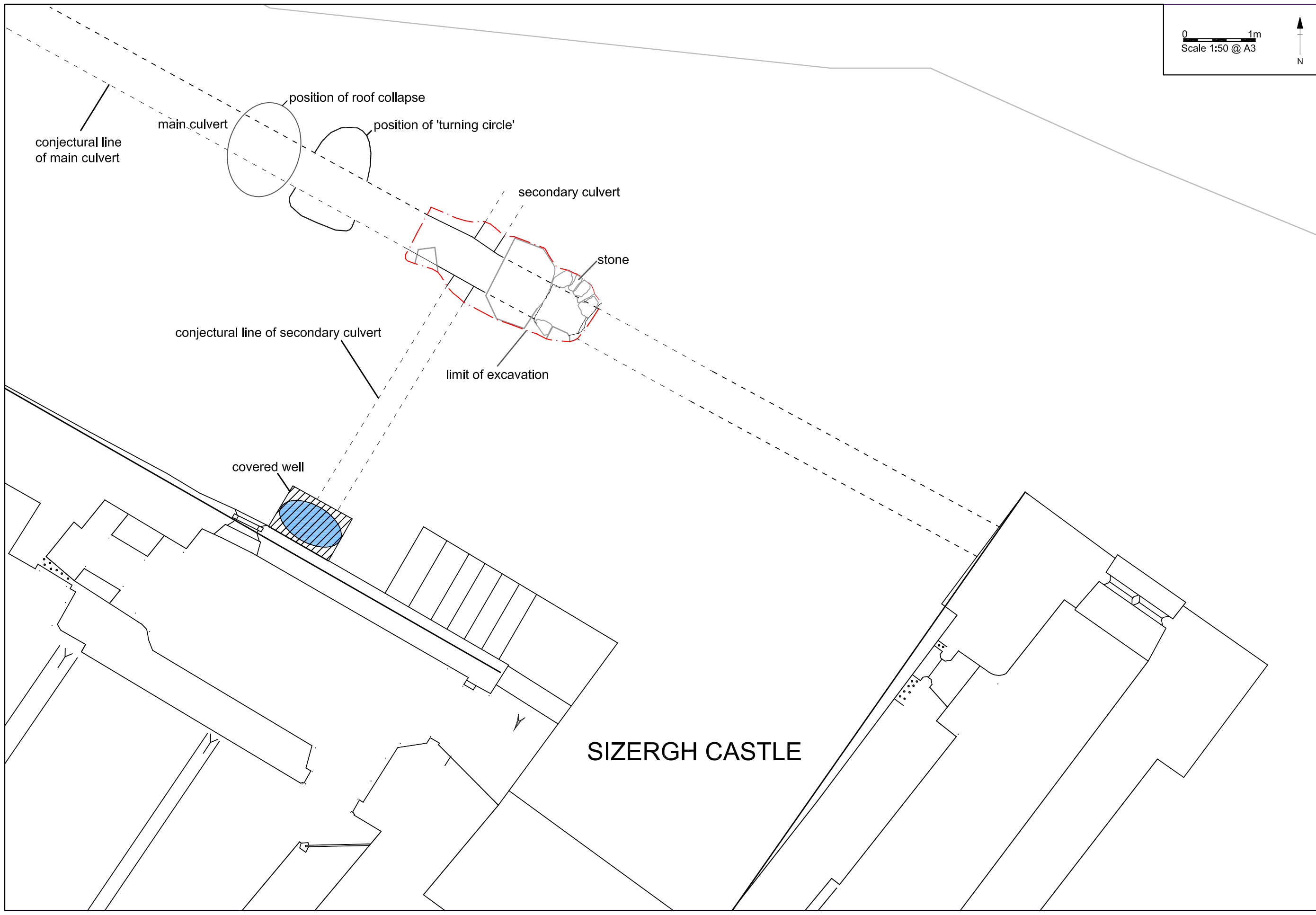
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Scale 1:2500 @ A4

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Figure 1: Site Location

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Scale 1:50 @ A3



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Figure 2: Plan of culvert

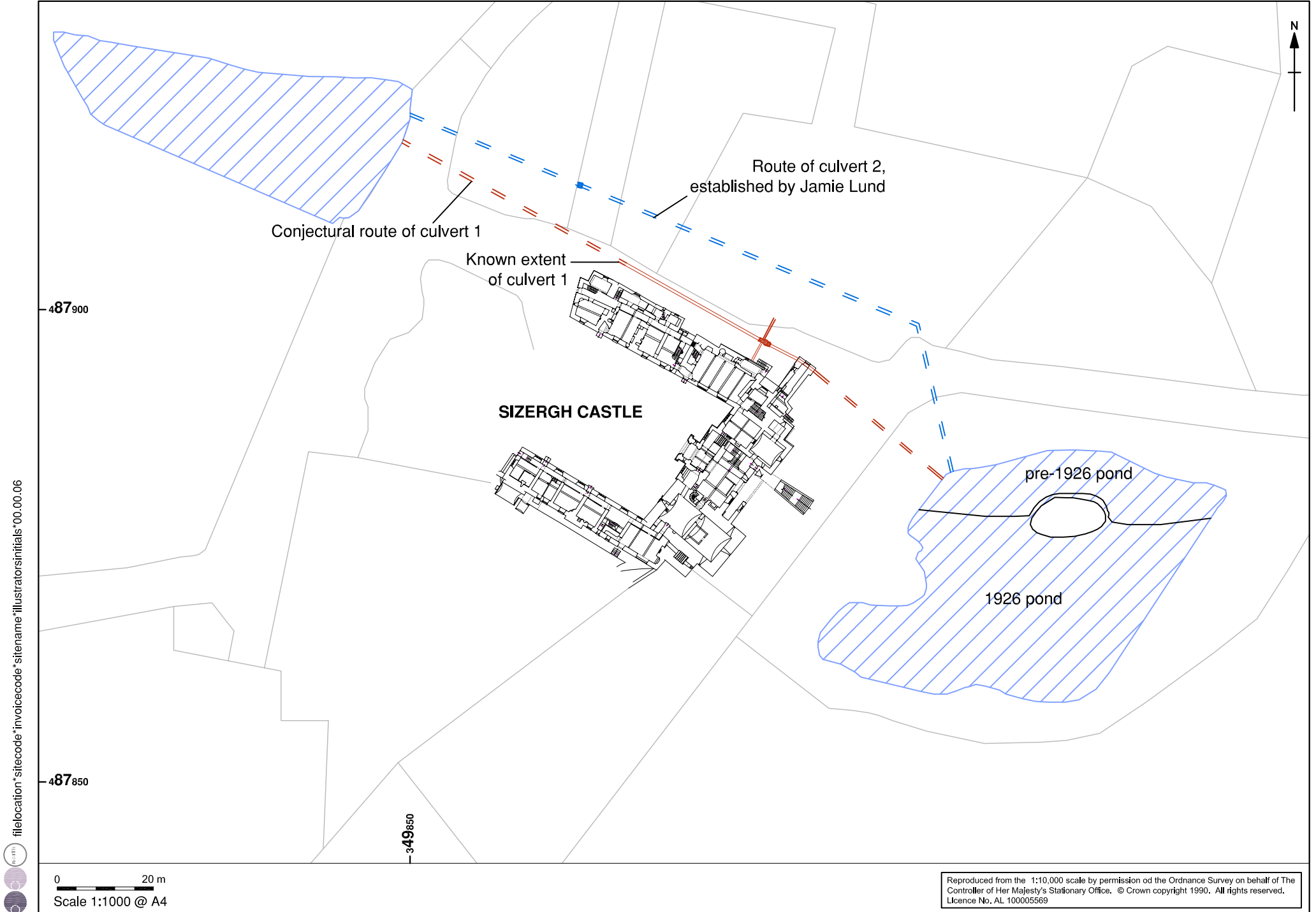


Figure 3: Plan showing the conjectural and known route of the two culverts identified at Sizergh Castle





Plate 1: South-east-facing view of culvert



Plate 2: South-west-facing view of culvert



Plate 3: South-west-facing view of southern side culvert



Plate 4: South-east-facing view inside culvert



Plate 5: North-west-facing view inside culvert