

**An Archaeological Watching Brief at
Beacon Wood Culvert, Benenden, Kent**

NGR 582275 133058

**Project No: 4480
Site Code: BWC 10**

ASE Report No: 2010148

OASIS id: archaeol6-82733

By

Giles Dawkes MIFA

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Abstract

An archaeological watching brief was undertaken by Archaeology South-East during groundworks and clearance of the Beacon Wood Culvert, Benenden, Kent. The work was commissioned by Kent County Council (KCC).

Works included the clearing of the culvert and the excavation of the silted-up stream channel either side. Site visits were made to monitor groundworks in July 2010.

The original extent and form of construction of the masonry culvert was identified and as well as an earlier larger stream channel. No evidence of the date of the culvert was found and it is believed that this culvert like the nearby Strawberry Wood culvert was associated with the post-medieval iron industry.

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1.0 INTRODUCTION

1.1 Site Background

1.1.1 Archaeology South-East (ASE), the contracting division of the Centre for Applied Archaeology at the University College London, were commissioned by Natural England to undertake an archaeological watching brief at Beacon Wood Culvert, Benenden, Kent (NGR 582275 133058).

1.1.2 The proposed development comprised of conservation and enhancement works to the culvert.

1.1.3 The site is part of the Hole Park farm holding which is being taken into one of Natural England's Higher Level Scheme Environmental Stewardship. Part of this agri-environment package includes projects designed to conserve and enhance the historic environment based on a review of the historic environment assets of each holding. Hole Park contains a wealth of archaeological sites, historic buildings and historic landscapes, one of which is a possible post medieval or earlier culvert in Beacon Wood.

1.1.4 The Kent County Council Archaeological Officer recommended that a watching brief be undertaken during the groundworks to record any potential archaeological remains

1.1.5 A specification for the archaeological works was prepared by KCC and this document was adhered to through the works.

1.2 Geology and Topography

1.2.1 According to the maps of the British Geological Survey, the site lies on Wadhurst Clay. The site is located within a shallow valley with an active stream (although the stream is dry at present. The site is located within a shallow valley with a stream, which is presently dry. A track extends over the culvert and this track is considered to be a major route way during the post-medieval period and maybe earlier, possibly part of the network used during the Roman period.

1.3 Aims and Objectives

1.3.1 The objectives of the archaeological watching brief are to

- Monitor groundworks and ensure there is a full record of archaeological remains;
- To clarify the nature of the culvert's construction;
- Determine the culvert's date of construction and period of use;
- To provide a full description and interpretation of the structure;
- to provide data to guide enhancement works and ensure they are in keeping with the culvert's historic integrity (there should be no restoration works, just conservation and stabilisation of what is presently surviving);
- contribute to heritage knowledge of the area through the recording of the archaeological remains exposed as a result of excavations in connection with the groundworks

1.4 Scope of Report

- 1.4.1 This report aims to outline the findings of the archaeological watching brief.
- 1.4.2 The fieldwork was undertaken by Giles Dawkes on the 22nd and 23rd July 2010. The project was managed by Darryl Palmer (Project Manager) and Jim Stevenson (Post-excavation Manager).

2.0 HISTORICAL AND ARCHAEOLOGICAL BACKGROUND

- 2.1** The culvert is located in Beacon Wood, which name means 'land on which signal fires were lighted' (Field 1989, 15). Beacon Wood lies immediately north-east of the village of Benenden, which in turn lay on the north-eastern edge of the main area of the Wealden iron industry. This industry probably existed in the area from before the Roman period and continued throughout the medieval period into the early industrial age (Hodgkinson 2008, 24-96).
- 2.2** By the medieval period Benenden had important local industries of iron and cloth-making also helped to make the village prosperous. In the 18th century blacksmiths and a bloomery are known from the village, but by the end of that century both the iron and cloth industries had moved to the newly industrial north (Cleere and Crossley 1985, 288). Benenden had four mills at various times. Wandle Mill, a watermill on the River Rother; East End Mill, a post mill at the site later occupied by the chest hospital, demolished c.1870; and a pair of mills to the east of the village, one of which, Beacon Mill is still standing (Coles Finch 1933, 160).
- 2.3** A map regression of the site from 1870 to 1979 (Fig 2) clearly shows the trackway crossing the stream. This stream crossing was almost certainly enabled by the culvert indicating that it was built before 1870.

3.0 ARCHAEOLOGICAL METHODOLOGY

- 3.1 The site code BWC 10 was used.
- 3.2 The work was undertaken in accordance with the KCC specification (KCC 2010).
- 3.3 The groundworks consisted of the hand-excavation of the silt and masonry collapse from the culvert and the 3 tonne mini-digger machine excavation of the silted-up stream channel either side down to a depth of 2.2m below current ground level.
- 3.4 All archaeological features were recorded according to standard UCLCAA practice. Where practicable, all features were planned at 1:20 and section drawings were at 1:10, unless this was impractical in which case an alternative would be agreed with the KCC Archaeological Advisor. Drawings were made on plastic draughting film. Features and deposits were described on standard pro-forma recording sheets used by ASE.

Number of Contexts	10
No. of files/paper record	11
Plan and sections sheets	2
Bulk Samples	0
Photographs	27 digital, 12 black and white, 12 colour slide
Bulk finds	2
Registered finds	0
Environmental flots/residue	0

Table 1: Quantification of Site Archive

4.0 ARCHAEOLOGICAL RESULTS (Figs 2-3)

- 4.1** The natural stiff brown yellow Wadhurst clay [1] was seen 0.3m below current ground level.
- 4.2** Cut into the natural was the course of an earlier larger stream. Palaeochannel [10] was aligned east to west and was up to 5m wide and at least 2.2m deep with steep concave sides. The base was not seen. The channel was filled with stiff grey blue clay [9] with no inclusions and no finds.
- 4.3** Cut into the upper part of palaeochannel fill [9] was the cut for the recent stream channel [3]. This sinuous channel was also east to west aligned and up to 1.8m deep and 1.5m wide with concave sides and base. The channel fill was soft dark brown humic silt [4] and no finds.
- 4.4** Cut into palaeochannel fill [9] was construction cut [6] for the culvert. The cut was not seen in the limited area of the excavation but the culvert may have been trench-built. The construction cut most likely involved the alteration or enlargement of the existing stream channel [3].
- 4.5** Culvert [7] was constructed of unworked and split-stone hard grey sandstone blocks. The culvert side walls were built in random drystone courses off a stone-slab base and with a stone-slab lintel above. The culvert was 8m long, at least 1.2m wide with an internal bore of 0.58m high and 0.48m wide. The lintel slabs were 1.2m wide and 0.15m thick. There were no finds recovered from the culvert masonry or any diagnostic evidence for the date of the construction. The culvert was had a straight profile, unlike the curved Strawberry Wood culvert, and survived nearly intact apart from a partially collapse at the western end.
- 4.6** Above, the culvert was backfilled with 1.4m of stiff brown yellow re-deposited natural [8]. The top of this deposit formed the surface of the trackway over the stream. The trackway itself was 3.4m wide, considerably narrower than the 8m long culvert and this suggests that the backfill above was battered back perhaps with a stone facing similar to how the Strawberry Wood culvert was restored. Unlike the Strawberry Wood culvert there was no evidence of trackway metalling although this could have easily been eroded away.
- 4.7** The culvert was partially filled with soft mottled blue and brown silt with very frequent organics [5] and a find of an opened modern tin of tea from an army NAFI. This indicated that the culvert was still flowing until quite recent times.
- 4.8** Subsoil [2] and topsoil [1] was seen overlying the natural adjacent to the stream.

5.0 DISCUSSION

- 5.1** This culvert has obvious construction parallels with the nearby Strawberry Wood culvert and it is plausible that they are of broadly contemporary date. Photographs of the two culverts are shown in Figure 4.
- 5.2** The culvert was constructed to allow access over a woodland stream. The structure was well-made and sturdily-built, no doubt to allow the passage of heavy-laden cart traffic. The somewhat remote woodland location suggests that the builder of the culvert-bridge was exploiting the woodland as a resource and, in the absence of any dating evidence, the most likely candidate was the local iron or cloth industry which flourished between the 16th and mid 18th centuries. Other dates cannot be ruled out but until a securely dated culvert is found and excavated this does seem to be currently the most plausible period of construction and use.

6.0 CONCLUSIONS

- 6.1** The watching brief succeeded in its general aim of monitoring and recording the groundworks. A masonry culvert of probable post-medieval date was recorded.

Bibliography

ASE, 2007, *An Archaeological Desk-Based Assessment of the Strawberry Wood Culvert, Benenden, Kent*

Cleere, H., and Crossley, D., 1985 *The Iron Industry of the Weald*, Leicester

Coles Finch, W., 1933 *Watermills and Windmills*, London

Hodgknison, J., *The Wealden Iron Industry*, Stroud

Field, J., 1989 *English Field Names*, Gloucester

KCC HCG 2010 *Specification for an archaeological watching brief at the site of Beacon Wood Culvert, Benenden, Tunbridge Wells, Kent*

Acknowledgements

ASE would like to thank Wendy Rogers of KCC for commissioning the work as well as everyone involved in the restoration of the culvert.

SMR Summary Form

Site Code	BWC10					
Identification Name and Address	Beacon Wood Culvert, Benenden, Kent					
County, District &/or Borough	Benenden					
OS Grid Refs.	NGR TQ 582275 133058					
Geology	Alluvium					
Arch. South-East Project Number	4480					
Type of Fieldwork	Eval.	Excav.	Watching Brief ✓	Standing Structure	Survey	Other
Type of Site	Green Field ✓	Shallow Urban	Deep Urban	Other		
Dates of Fieldwork	Eval.	Excav.	WB. July 210	Other		
Sponsor/Client	Jacobs					
Project Manager	Darryl Palmer					
Project Supervisor	Giles Dawkes					
Period Summary	Palaeo.	Meso.	Neo.	BA	IA	RB
	AS	MED	PM ✓	Other Modern		
<p>100 Word Summary.</p> <p><i>An archaeological watching brief was undertaken by Archaeology South-East during groundworks and clearance of the Beacon Wood Culvert, Benenden, Kent. The work was commissioned by Kent County Council (KCC).</i></p> <p><i>Works included the clearing of the culvert and the excavation of the silted-up stream channel either side. Site visits were made to monitor groundworks in July 2010.</i></p> <p><i>The original extent and form of construction of the masonry culvert was identified and as well as an earlier larger stream channel. No evidence of the date of the culvert was found and it is believed that this culvert like the nearby Strawberry Wood culvert was associated with the post-medieval iron industry.</i></p>						

OASIS ID: archaeol6-82733

Project details

Project name	Beacon Wood Culvert, Benenden, KEnt
Short description of the project	An archaeological watching brief was undertaken by Archaeology South-East during groundworks and clearance of the Beacon Wood Culvert, Benenden, Kent. The work was commissioned by Kent County Council (KCC). Works included the clearing of the culvert and the excavation of the silted-up stream channel either side. Site visits were made to monitor groundworks in July 2010. The original extent and form of construction of the masonry culvert was identified and as well as an earlier larger stream channel. No evidence of the date of the culvert was found and it is believed that this culvert like the nearby Strawberry Wood culvert was associated with the post-medieval iron industry.
Project dates	Start: 01-07-2010 End: 31-07-2010
Previous/future work	Yes / Not known
Type of project	Field evaluation
Site status	None
Current Land use	Woodland 3 - Mixed

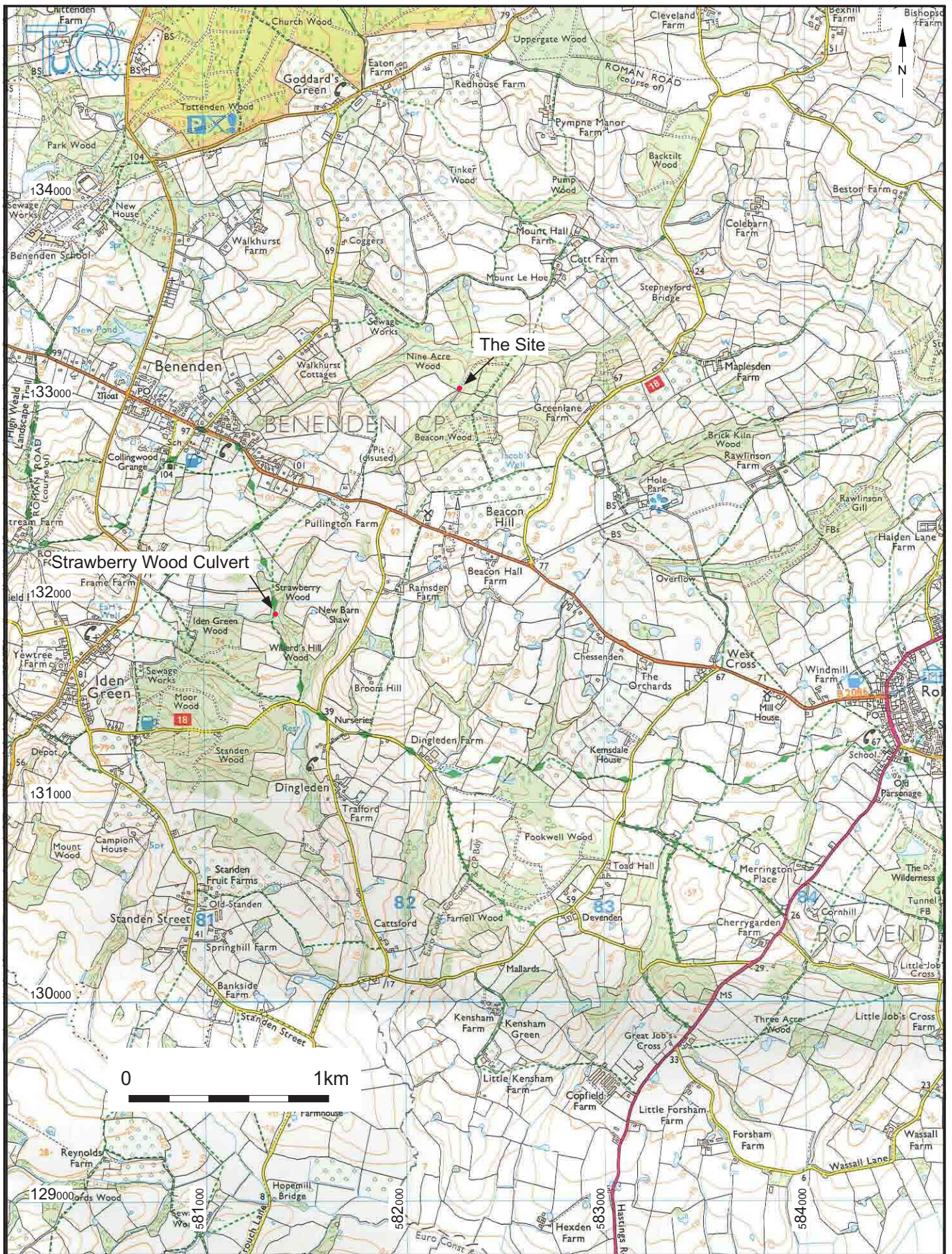
Project location

Country	England
Site location	KENT TUNBRIDGE WELLS BENENDEN Beacon Culvert
Site coordinates	TQ 582275 133058 50.8969417385 0.250284759183 50 53 48 N 000 15 01 E Point

Project creators

Name of Organisation	Archaeology South-East
Project brief originator	Kent County Council
Project design originator	Kent County Council
Project director/manager	Darryl Palmer
Project supervisor	Giles Dawkes
Type of sponsor/funding body	County Council
Entered by	Jim Stevenson (jim.stevenson@ucl.ac.uk)

Entered on 14 September 2010

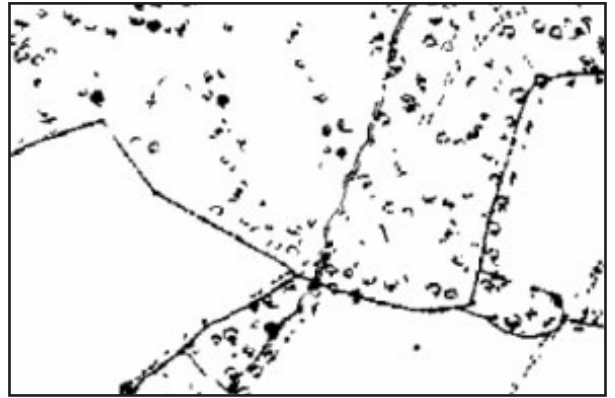


© Archaeology South-East		Beacon Wood, Culvert	Fig. 1
Project Ref: 4480	September 2010	Site Location Plan	
Report Ref: 2010	Drawn by: FEG		

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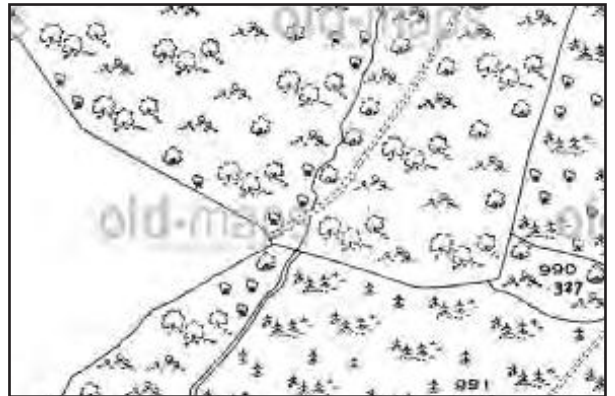
1870 OS



1898 OS



1908 OS



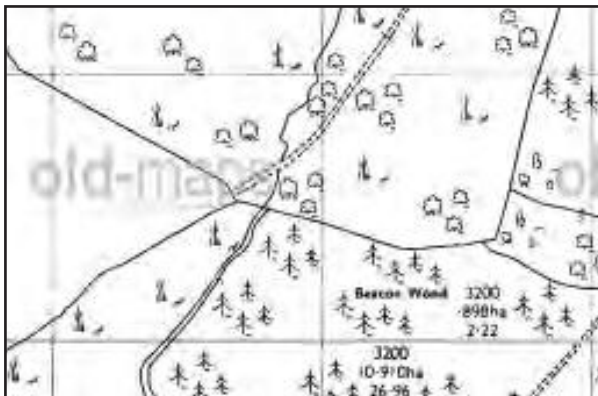
1937 OS



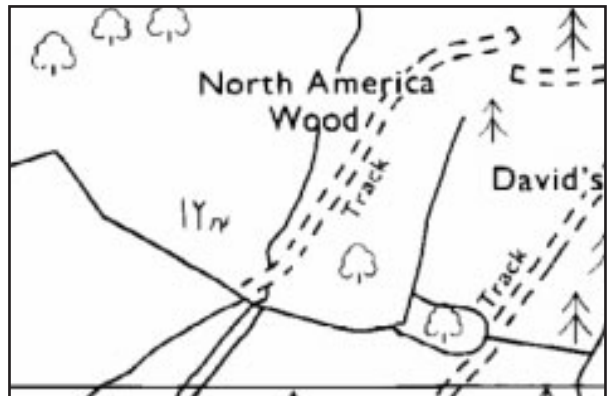
1938-51 OS



1961 OS

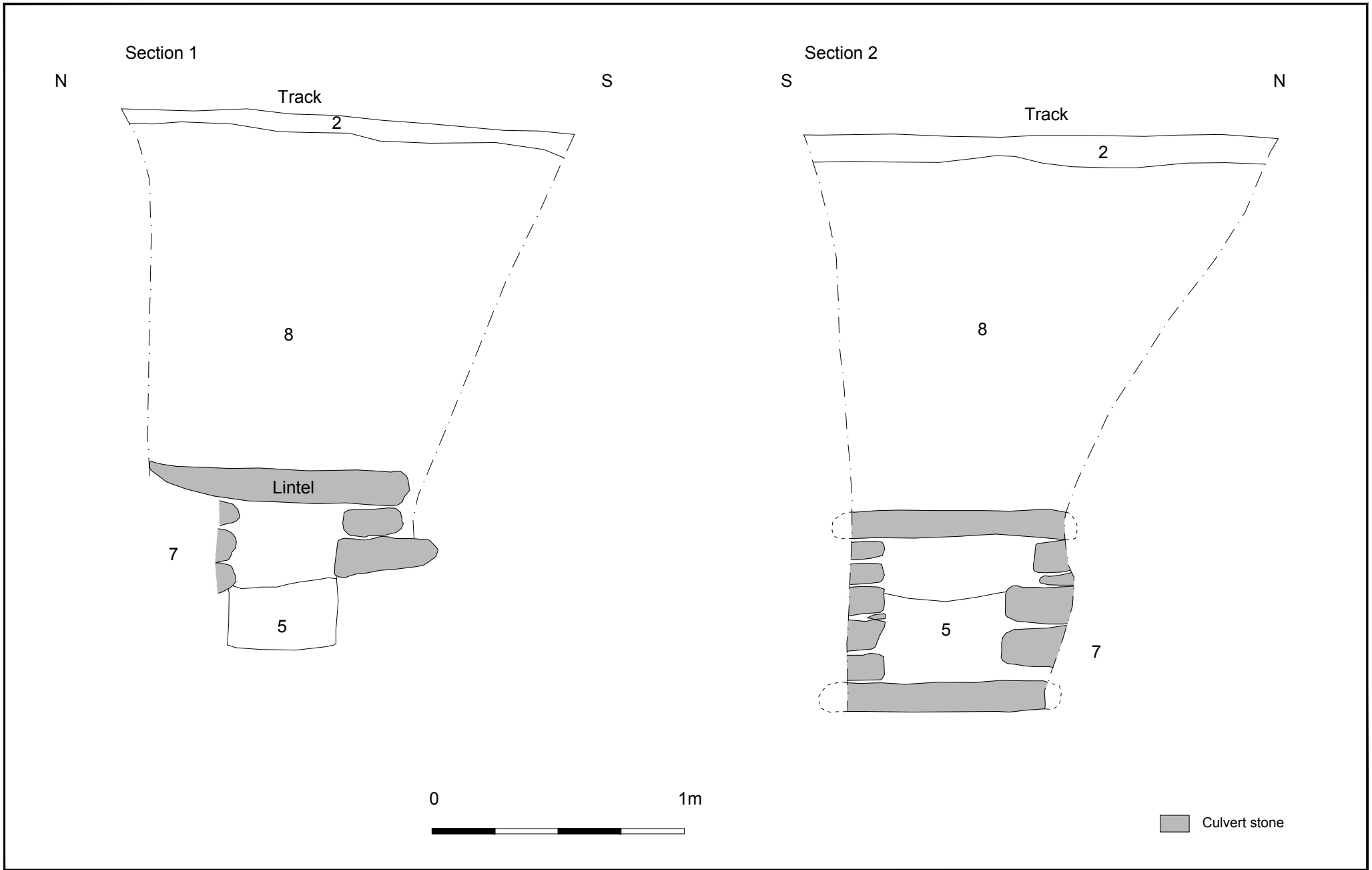


1974 OS



1979 OS

© Archaeology South-East		Beacon Wood, Culvert	Fig. 2
Project Ref: 4480	Nov 2010	Ordnance Survey extracts	
Report Ref: 2010148	Drawn by: JLR		



© Archaeology South-East		Beacon Wood Culvert		Fig. 4
Project Ref: 4480	Sept 2010	Sections		
Report Ref: 2010148	Drawn by: FEG			



West side of culvert, looking east



East side of culvert, looking west



Strawberry Wood culvert before restoration



Interior of Strawberry Wood culvert

© Archaeology South-East		Beacon Wood, Culvert	Fig. 5
Project Ref: 4480	Sept 2010	Photographs	
Report Ref: 2010148	Drawn by: JLR		



Culvert base facing west



Culvert clearance underway



Culvert east end facing west



Culvert facing east



Culvert internal facing west



Culvert north wall



Culvert roof facing west



Culvert south wall



Detail of north wall, west end



Earlier stream course



East end of culvert



Excavation area to the east

© Archaeology South-East		Beacon Wood, Culvert	Fig. 6
Project Ref: 4480	Sept 2010	Photographs	
Report Ref: 2010148	Drawn by: JLR		



Section through earlier stream course



Site facing east



Site facing south



Stream to the north



The joys of culvert clearance



West end clearance



West end cleared

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