# BEGBROKE SCIENCE PARK ACCESS ROAD BEGBROKE OXFORDSHIRE

## **ARCHAEOLOGICAL EVALUATION**

For

### **TURNBERRY CONSULTING LIMITED**

on behalf of

## OXFORD UNIVERSITY ESTATES DIRECTORATE

CA PROJECT: 3291 CA REPORT: 11013

FEBRUARY 2011



# BEGBROKE SCIENCE PARK ACCESS ROAD BEGBROKE OXFORDSHIRE

#### ARCHAEOLOGICAL EVALUATION

CA PROJECT: 3291 CA REPORT: 11013

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date	21 January 2011
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signed	Show (B)
date	14 February 2011
issue	02

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#### SUMMARY

Project Name: Begbroke Science Park Access Road

**Location:** Begbroke, Oxfordshire

**NGR:** SP 4753 1343

Type: Evaluation

**Date:** 10 to 12 January 2011

Location of Archive: To be deposited with Oxfordshire Museum Service

Accession Number: OXCMS: 2011.2

Site Code: BS0 11

An archaeological evaluation was undertaken by Cotswold Archaeology in January 2011 at Begbroke Science Park Access Road, Begbroke, Oxfordshire. A total of ten trenches was excavated.

Curvilinear ditches were identified within the eastern part of the site during the evaluation and these corresponded to cropmarks identified through aerial photography. The cropmarks appeared to represent an oval feature (40m in length and 28m in width) and a ring ditch (18.5m in diameter).

Although no dating evidence was recovered from them it is possible that the features identified during the evaluation represent the remains of funerary monuments of Bronze Age date.

#### 1. INTRODUCTION

- 1.1 In January 2011 Cotswold Archaeology (CA) carried out an archaeological evaluation for Turnberry Consulting Limited on behalf of Oxford University Estates Directorate at Begbroke Science Park Access Road, Begbroke, Oxfordshire (centred on NGR: SP 4753 1343; Fig. 1). The evaluation was undertaken prior to the submission of a planning application to Cherwell District Council (CDC) for the redevelopment of the site.
- 1.2 The evaluation was carried out in accordance with a recommendation by Mr Richard Oram, Planning Archaeologist, Oxfordshire County Archaeological Service (OCAS), the archaeological advisor to CDC (in an email dated 21 October 2010), the *Design Brief for Archaeological Field Evaluation* (OCAS 2010) and with a subsequent detailed Written Scheme of Investigation (WSI) produced by CA (2010) and approved by Mr Oram. The fieldwork also followed the *Standard and Guidance for Archaeological Field Evaluation* (IfA 2008), the *Management of Archaeological Projects* (English Heritage 1991) and the Management of Research Projects in the Historic Environment (MORPHE): Project Manager's Guide (EH 2006). It was monitored by Mr Oram, including a site visit on 12 January 2010.

#### The site

- 1.3 The site is bounded to the west by Woodstock Road West (A44), to the north by agricultural land, to the east by Begbroke Science Park and to the south by a Garden Centre and allotment gardens (Fig. 2). The site is flat and is located at *c*. 64m AOD.
- 1.4 The site encloses an area of approximately 0.55ha and comprises parts of two arable fields.
- 1.5 The underlying solid geology of the area is mapped as Oxford Clay Formation and West Walton Formation (undifferentiated) mudstone of the Callovian to Oxfordian periods overlain by Summertown-Radley Sand and Gravel Member of the Pleistocene era (BGS 2010). Sandy clay and gravel were encountered within all of the trenches.

#### Archaeological background

- The site is located in an area of archaeological potential. In particular it lies in the vicinity of a number of features identified as cropmarks in aerial photographs (MoLAS 2008, fig. 6). Two or three ovoid features, ditches and pits have been identified to the south of the route (PRN 7533) and an oval enclosure with subcircular enclosures and a pit group have also been recorded to the north of the route (PRN 7336) and may be affected by it (OCAS 2010).
- 1.7 Iron Age and Roman occupation activity has also been identified *c*. 1km to the south-east of the site (PRN 2371 and 2372). A probable prehistoric settlement site (identified by a complex series of cropmarks) has been identified to the south-east of the site (PRN 2622).
- 1.8 A probable square enclosure (PRN 2588; identified as a cropmark) is located to the south-west of the site and an undated group of cropmarks comprising a droveway and a field system (PRN 7350) has been identified to the north-east of this.
- 1.9 A number of circular cropmarks (PRN 7336; probably representing enclosures) have been identified 450m to the north of the site and number of prehistoric worked flint artefacts have been recovered from the vicinity of the site (PRN 4164 and 4172). A Bronze Age pit (PRN 17405) was identified during an evaluation undertaken 500m to the south of the site (OCAS 2010). An archaeological evaluation on the route of a previously proposed access road identified a post-medieval ditch and four undated ditches (MoLAS 2008).

#### Archaeological objectives

1.10 The objectives of the evaluation were to establish the character, quality, date and extent of any archaeological remains or deposits surviving within the site. This information will assist Cherwell District Council in making an informed judgement on the significance of the archaeological resource, and the likely impact upon it of the proposed development.

#### Methodology

1.11 The fieldwork comprised the excavation of ten trenches in the locations shown on the attached plan (Fig. 2). All trenches measured 30m in length and 1.6m in width. Trench 1 was relocated due to buried services. Trenches were set out on OS National Grid (NGR) co-ordinates using a Leica 1200 series SmartRover GPS and surveyed in accordance with CA Technical Manual 4 *Survey Manual* (2009).

- 1.12 All trenches were excavated by mechanical excavator equipped with a toothless grading bucket. All machine excavation was undertaken under constant archaeological supervision to the top of the first significant archaeological horizon or the natural substrate, whichever was encountered first. Where archaeological deposits were encountered they were excavated by hand in accordance with CA Technical Manual 1: Fieldwork Recording Manual (2007).
- 1.13 Deposits were assessed for their palaeoenvironmental potential in accordance with CA Technical Manual 2: *The Taking and Processing of Environmental and Other Samples from Archaeological Sites* (2003), however, no deposits were identified that required sampling. All artefacts recovered were processed in accordance with Technical Manual 3 *Treatment of Finds Immediately after Excavation* (2010).
- 1.14 The archive from the evaluation is currently held by CA at their offices in Kemble. The site archive will be deposited with Oxfordshire Museum Service under accession number: OXCMS: 2011.2. A summary of information from this project, set out within Appendix B, will be entered onto the OASIS online database of archaeological projects in Britain.

#### 2. RESULTS (FIGS 2-4)

- 2.1 This section provides an overview of the evaluation results; detailed summaries of the recorded contexts are to be found in Appendix A.
- 2.2 No features or deposits of archaeological significance were identified within Trenches 1 and 4-10.

#### General Stratigraphy

2.3 The natural geological substrate within each of the trenches comprised clay sand with patches of gravel inclusions. The natural substrate was overlain by a clay sand subsoil *c*. 0.2m in thickness, which was in turn overlain by a clay silt topsoil *c*. 0.25m in thickness. All identified archaeological features cut the natural substrate.

#### Trench 2 (Figs 2 & 3)

- 2.4 Curvilinear ditch 2003 was located at the northern end of the trench. No dating evidence was recovered from the single fill 2004.
- 2.5 Ditch 2003 corresponded to a cropmark probably representing a small oval enclosure or ring ditch measuring 40m in length and 18m in width. The cropmark targeted by the southern end of the trench was not identified (MoLAS 2008, fig. 6).

#### Trench 3 (Figs 2 & 3)

- 2.6 Curvilinear ditch 3004, was located at the north-western end of the trench. No dating evidence was recovered from the single fill 3003.
- 2.7 Ditch 3004 corresponded to a cropmark, measuring 18.5m in diameter, probably representing a ring ditch (MoLAS 2008, fig. 6).

#### 3. DISCUSSION

- 3.1 In the eastern part of the site cropmarks probably representing archaeological features, had been identified (MoLAS 2008, fig. 6). These comprised a number of isolated small sub-circular enclosures or ring ditches (PRN 7336). These features were investigated through the excavation of Trenches 2 and 3 and although no dating evidence was recovered during the evaluation it is possible that these features represent the remains of funerary monuments of Bronze Age date.
- 3.2 Examples of low-lying Bronze Age ring ditches an/or round barrows identified within Oxfordshire include King's Weir, Wytham, Oxfordshire and Barrow Hill, Radley. The former site was located on the Thames floodplain at the confluence of the Thames and a palaeochannel; three round barrows were identified and were between 30m and 36m in diameter. Pottery dating to the later Bronze Age was recovered from the upper fill of one of the ring-ditches, although no burials were identified during the investigation (Bowler and Robinson 1980). At Radley, 20km to the south of Begbroke 25 north-east/south-west aligned circular and oval ring ditches of Neolithic and Bronze Age date were identified between converging streams (Barclay and Halpin 1998).

- 3.3 The features identified during the evaluation, and those located 250m to the north of the current site, fall within the size range of the Bronze Age funerary monuments identified elsewhere (c. 10m to 40m in diameter at Radley) and it is likely that the features are of a similar date and character. These possible funerary monuments lie within a landscape of potential further buried archaeological remains associated with settlement during the prehistoric periods.
- 3.4 In accordance with *PPS5: Planning for the Historic Environment* a summary statement of significance has been developed. This statement relates to the archaeological remains (the heritage assets) located with the construction footprint of the proposed new road corridor. Therefore, the potential significance of the setting of heritage assets in the wider area has not been considered in detail.
- 3.5 The nature of the heritage assets, buried archaeological remains with no surface expression, dictates that their significance is solely embodied in their archaeological interest and historic interest (i.e. in their current form they do not possess any architectural or artistic interest) (DCLG, 2009, Annex 2).
- 3.6 The archaeological interest of the assets lies within potential to expertly investigate the buried remains at some point in the future (*DCLG*, 2008, Annex 2). This assessment has not included a review of the archaeological research agenda for Oxfordshire; however, the types of features that have been identified are similar to those that have been identified locally elsewhere. As such we do not consider the identified features to be of national or regional significance in terms archaeological interest. It is therefore assumed that investigation of the assets would only make a limited contribution to the understanding of past human activity in the area.
- 3.7 Therefore although the development would result in the partial loss of these physical remains (adversely affecting the asset's significance), the asset is not considered to be of national or regional significance. Overall the proposed development would only have a minor adverse impact in terms of archaeological interest.
- 3.8 The *historical interest* of the heritage assets is embodied in their physical remains and their setting; representing the 'illustrative value' (EH, 2008, pp29) of the place as the site of former funerary monuments and settlement. The proposed construction of the new road would change the existing setting of the heritage assets. However, as the current proposals for construction dictate that only part of the wider collection of

assets or buried remains would be lost (i.e. only part of the 'site of'), as such it can be stated that the *historical interest* of the site would not be 'obliterated or concealed' (EH, 2008, pp29, [paragraph 44]).

3.9 Therefore, it is concluded that although the proposed construction works would have a minor adverse affect on the significance of the heritage assets, the impact is not of such magnitude that the constraint should preclude development of the site.

#### Mitigation Strategy

- 3.10 To mitigate the impact of the proposed development upon identified heritage asset we would suggest that an appropriate programme of archaeological mitigation works is undertaken.
- 3.11 Reflecting the significance of the heritage assets identified we suggest that appropriate mitigation would comprise the controlled strip of the overburden under archaeological supervision with a contingency for archaeological excavation and recording of any archaeological remains identified.

#### 4. CA PROJECT TEAM

Fieldwork was undertaken by Stuart Joyce, assisted by Martin Harrington, Jonathan Boon and Tristan Adfield. The report was written by Stuart Joyce, assisted by Martin Harrington. The illustrations were prepared by Jonathan Bennett. The archive has been compiled by Martin Harrington, and prepared for deposition by James Johnson. The project was managed for CA by Laurent Coleman.

#### 5. REFERENCES

BGS (British Geological Survey)

<a href="http://maps.bgs.ac.uk/geologyviewer\_google/googleviewer.html">http://maps.bgs.ac.uk/geologyviewer\_google/googleviewer.html</a> accessed 11

November 2010

Barclay and Halpin 1998 Excavations at Barrow Hills, Radley, Oxfordshire, Volume 1: The Neolithic and Bronze Age Monument Complex

- Bowler, D. and Robinson, M. 1980 'Three Round Barrows at King's Weir, Wytham, Oxon' Oxoniensia XLV, 1-8
- CA (Cotswold Archaeology) 2010 Begbroke Science Park Access Road, Begbroke, Oxfordshire: Written Scheme of Investigation for an Archaeological Evaluation
- MoLAS (Museum of London Archaeological Service) 2008 Begbroke Science Park Access Road, Begbroke, County of Oxfordshire: Archaeological Evaluation Report
- OCAS (Oxfordshire County Archaeological Services) 2010 Begbroke Science Park, Access Road and Land Adjacent to Woodstock Road, Begbroke: Design Brief for Archaeological Field Evaluation
- Barclay and Halpin 1998 Excavations at Barrow Hills, Radley, Oxfordshire: Volume 1: The Neolithic and Bronze Age Monument Complex

#### **APPENDIX A: CONTEXT DESCRIPTIONS**

Trench 1 Present ground level at c. 68.1m

No.	Туре	Description	Length (m)	Width (m)	Depth (m)	Spot- date
1000	Layer	Topsoil			0.25	
1001	Layer	Subsoil			0.2	
1002	Layer	Natural			>0.1	

Trench 2 Present ground level at c. 68.1m

No.	Туре	Description	Length (m)	Width (m)	Depth (m)	Spot- date
2000	Layer	Topsoil			0.32	
2001	Layer	Subsoil			0.2	
2002	Layer	Natural			>0.13	
2003	Cut	Curvilinear Ditch	>1.5	0.98	0.35	
2004	Fill	Fill of 2003		0.98	0.35	

Trench 3 Present ground level at c. 68.2m

No.	Туре	Description	Length	Width	Depth	Spot-
			(m)	(m)	(m)	date
3000	Layer	Topsoil			0.26	
3001	Layer	Subsoil			0.16	
3002	Layer	Natural			0.12	
3003	Fill	Fill of 3004		1.4	0.11	
3004	Cut	Curvilinear Ditch	>2.9	1.4	>0.11	

Trench 4 Present ground level at c. 68.4m

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No.	Туре	Description	Length	Width	Depth	Spot-
			(m)	(m)	(m)	date
4000	Layer	Topsoil			0.25	
4001	Layer	Subsoil			0.2	
4002	Layer	Natural			>0.1	

Trench 5 Present ground level at c. 68.2m

No.	Туре	Description	Length	Width	Depth	Spot-
			(m)	(m)	(m)	date
5000	Layer	Topsoil			0.3	
5001	Layer	Subsoil			0.28	
5002	Layer	Natural			>0.17	
5003	Cut	Pit		>1	0.56	
5004	Fill	Lower fill of 5003		0.3	0.13	
5005	Fill	Upper fill of 5003		0.3	0.45	
5006	Cut	Pit		0.87	0.23	
5007	Fill	Fill of 5006		0.87	0.23	

Trench 6 Present ground level at c. 68.4m

No.	Туре	Description	Length (m)	Width (m)	Depth (m)	Spot- date
6000	Layer	Topsoil			0.25	
6001	Layer	Subsoil			0.35	
6002	Layer	Natural			>0.05	

#### Trench 7 Present ground level at c. 68m

No.	Туре	Description	Length (m)	Width (m)	Depth (m)	Spot- date
7000	Layer	Topsoil	(111)	(111)	0.25	date
7001	Layer	Subsoil			0.25	
7002	Layer	Natural			>0.1	
7003	Cut	Posthole		0.3	0.18	
7004	Fill	Fill of 7003		0.3	0.18	
7005	Cut	Posthole	0.55	0.45	0.22	
7006	Fill	Fill of 7005		0.45	0.22	

Trench 8 Present ground level at c. 67.8m

No.	Туре	Description	Length (m)	Width (m)	Depth (m)	Spot- date
8000	Layer	Topsoil			0.25	
8001	Layer	Subsoil			0.3	
8002	Layer	Natural			>0.05	

Trench 9 Present ground level at c. 67.4m

No.	Type	Description	Length	Width	Depth	Spot-
			(m)	(m)	(m)	date
9000	Layer	Topsoil			0.25	
9001	Layer	Subsoil			0.55	
9002	Layer	Natural			>0.05	

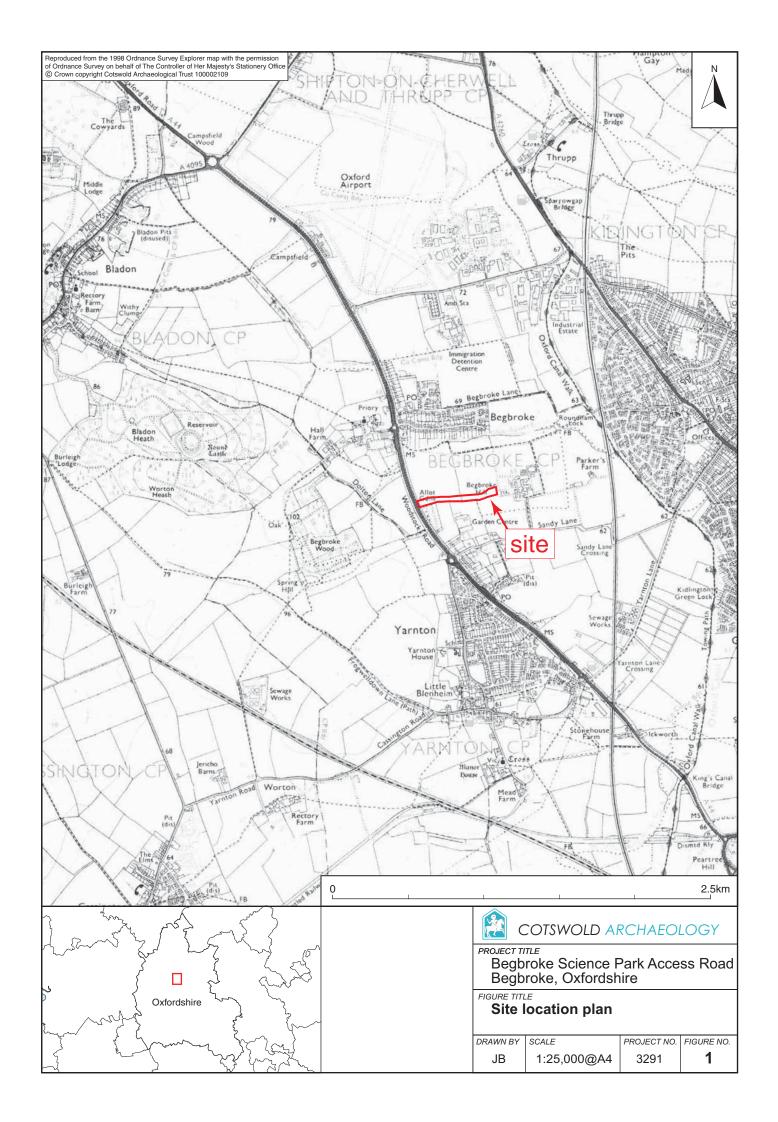
Trench 10 Present ground level at c. 67.9m

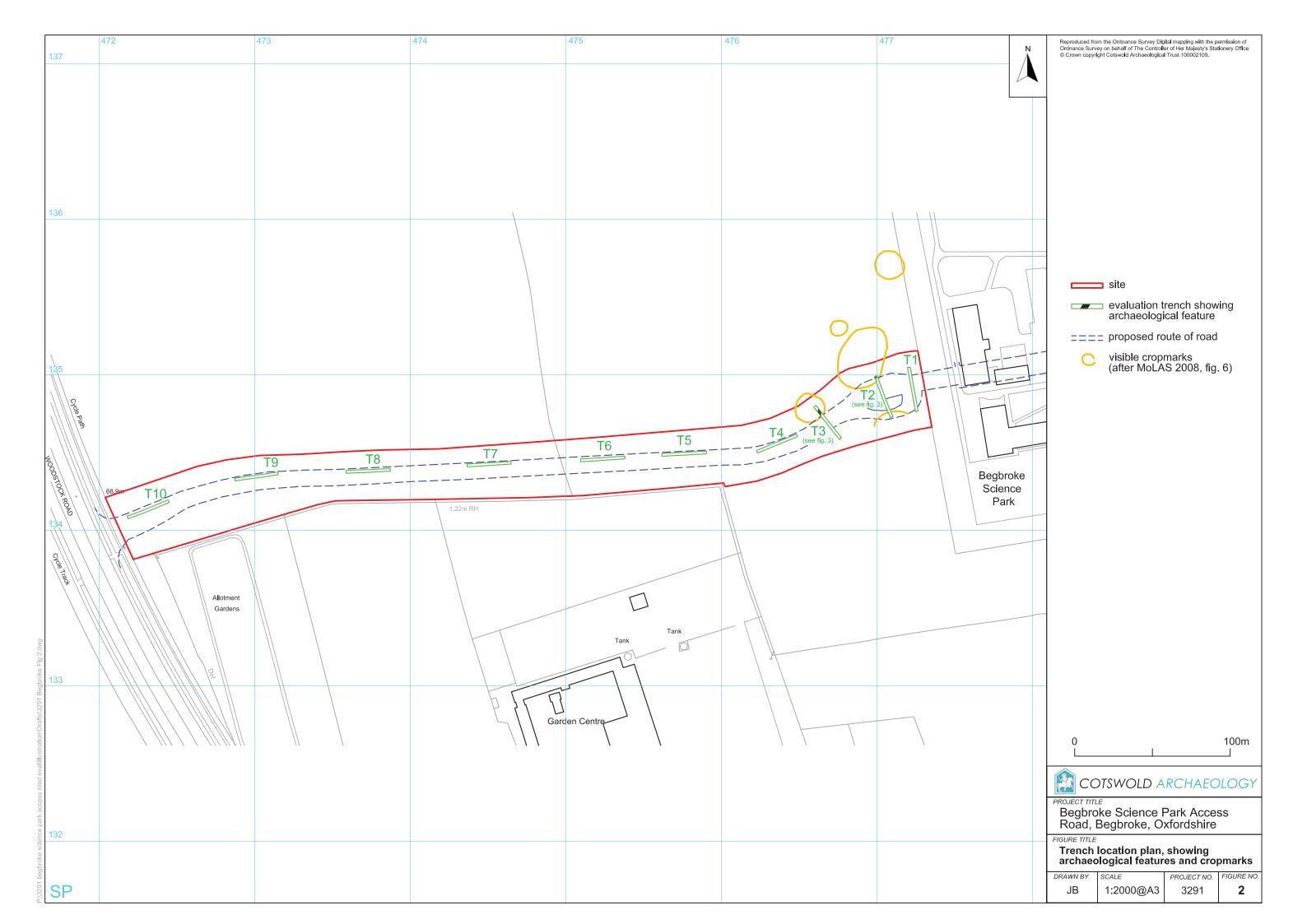
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No.	Type	Description	Length	Width	Depth	Spot-
			(m)	(m)	(m)	date
10000	Layer	Topsoil			0.25	
10001	Layer	Subsoil			0.55	
10002	Layer	Natural			>0.05	

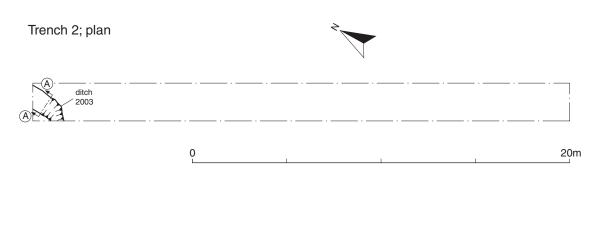
#### APPENDIX B: OASIS REPORT FORM

Project Name	Begbroke Science Park Access Road, Begbroke, Oxfordshire				
Short description	An archaeological evaluation was undertaken by Cotswold Archaeology in January 2011 at Begbroke Science Park Access Road, Begbroke, Oxfordshire. A total of ten trenches was excavated.  Curvilinear ditches were identified within the eastern part of the site during the evaluation and these corresponded to cropmarks identified through aerial photography. The cropmarks appeared to represent an oval feature (40m in length and 28m in width) and a ring ditch (18.5m in diameter).  Although no dating evidence was recovered from them it is possible that the features identified during the evaluation represent the remains of funerary monuments of Bronze Age date.				
Project dates	10 to 12 January 2011				
Project type	Archaeological Evaluation				
Previous work	None				
Future work	Unknown				
PROJECT LOCATION					
Site Location	Begbroke Science Park Access Road, Begbroke, Oxfordshire				
Study area (M²/ha)	0.55ha				
Site co-ordinates (8 Fig Grid Reference)	SP 4753 1343				
PROJECT CREATORS					
Name of organisation	Cotswold Archaeology				
Project Brief originator	Oxfordshire County Archaeological Services				
Project Design (WSI) originator	Cotswold Archaeology				
Project Manager	Laurent Coleman				
Project Supervisor	Stuart Joyce				
MONUMENT TYPE	Ring ditch				
SIGNIFICANT FINDS	None				
PROJECT ARCHIVES	Intended final location of archive (OXCMS: 2011.2)	Content			
Physical					
Paper	Oxfordshire Museum Service	WSI, pro forma registers, recording forms and photographs			
Digital	Oxfordshire Museum Service	Digital photographs			
BIBLIOGRAPHY					

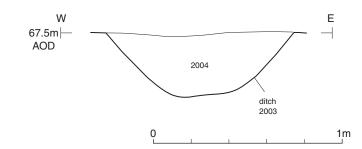
Evaluation: CA typescript report 11013

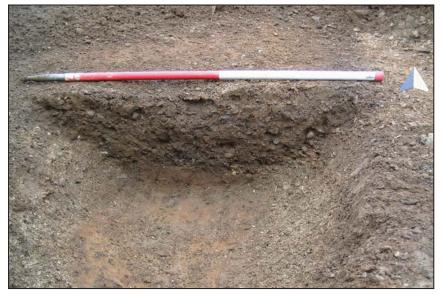




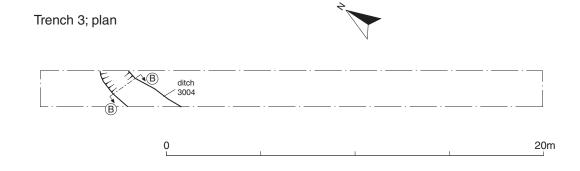


Section AA

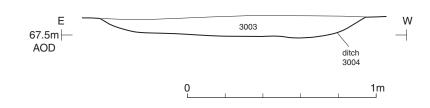




South facing section of ditch 2003, looking north (1m scale)



#### Section BB





North facing section of ditch 3004, looking south (1m scale)



#### COTSWOLD ARCHAEOLOGY

PROJECT TITLE

Begbroke Science Park Access Road
Begbroke, Oxfordshire

FIGURE TITLE

Trenches 2 and 3; plans, sections and photographs

DRAWN BY	SCALE	PROJECT NO.	FIGURE NO.
JB	1:20&200@A3	3291	3