# Whitbred Borrow Area: Evaluation Report



Archaeological Evaluation Report



**Client: Balfour Beatty** 

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#### **Whitbred Borrow Area**

# Archaeological Evaluation Report

# Written by Hefin Meara

## and illustrated by Julia Moxham

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#### Summary

In January 2009, Oxford Archaeology (OA) undertook an evaluation by trial trenching of the proposed Whitbred Borrow Area on behalf of Balfour Beatty Civil Engineering Ltd. The site is centred on NGR 503955 246210.

A total of nine trenches were excavated. The evaluation revealed the site to have been truncated by modern activity, possibly related to previous work on the A421. No archaeological features were observed during the course of the evaluation. The trenches revealed natural geology overlain by a layer of made ground which was in turn overlain by topsoil. The presence of a layer of made ground directly overlying the natural clay indicates that the site has previously been stripped of topsoil which is likely to have damaged or destroyed any archaeological features which may once have existed at the site.



#### 1 Introduction

#### 1.1 Location and scope of work

1.1.1 In January 2009, Oxford Archaeology (OA) was commissioned by Balfour Beatty to carry out an archaeological field evaluation within the site of a proposed borrow area at Whitbred. The site is located to the south of the A421 and east of Marsh Leys industrial estate in the parish of Elstow, Bedford. The work was undertaken in accordance with a Written Scheme of Investigation (WSI) prepared by Scott Wilson (Scott Wilson 2009). The site is centred on NGR 503955 246210 and is *c* 11 Hectares in area (Figure 1).

#### 1.2 Geology and topography

- 1.2.1 The site lies mostly on a flat plateau at *c* 29 m above Ordnance Datum.
- 1.2.2 The geology of the site is Oxford Clay.
- 1.2.3 The site of the proposed borrow area is currently used as arable farm land.

#### 1.3 Archaeological and historical background

- 1.3.1 The archaeological and historical background is given in the WSI. A summary is given below to set the context for the evaluation.
- 1.3.2 Extensive evidence for Iron Age and Romano-British settlement has been recorded by archaeological excavation along the line of the A421 to the south-west of the evaluation area. In addition, limited evidence for prehistoric activity has been found in the vicinity of Wooton to the west of the site.
- 1.3.3 Evidence of medieval agriculture associated with nearby Wooton has been recorded by field survey and discrete areas of ridge and furrow earthworks are preserved.
- 1.3.4 In addition an extensive complex of rectilinear cropmarks has been recorded south of Kempston South Relief Road. Further cropmarks of circular features have also been documented *c* 250 m NW and *c* 300 m NE of the proposed borrow area respectively.
- 1.3.5 The Bedford to Ampthill Turnpike road now known as Ampthill Road (B530) runs directly to the east of the proposed borrow area.
- 1.3.6 A geophysical survey (Stratascan 2008) carried out on the proposed Whitbred Borrow Area did not reveal any anomalies of definite archaeological origin. However, the survey did reveal extensive disturbance, possibly of recent origin.

#### 1.4 Acknowledgements

1.4.1 OA extends its thanks to Lesley-Anne Mather of Bedfordshire County Council, Nick Finch of Scott Wilson and to Balfour Beatty. Paul Murray ran the fieldwork, assisted by Sarah Lane, Sergio Carvalho and Tori Wilkinson. The project was managed by Ken Welsh.



#### 2 EVALUATION AIMS AND METHODOLOGY

#### 2.1 Aims

- 2.1.1 The aims of the evaluation were:
  - (i) To identify the presence/absence of buried archaeological remains within the proposed Whitbred Borrow Area.
  - (ii) To determine (where possible) the nature, depth, extent, character and date of any archaeological deposits or features encountered.
  - (iii) To determine the condition or state of preservation of any archaeological deposits or features encountered.
  - (iv) To determine the likely range, quality and quantity of artefactual and environmental evidence present.
  - (v) To inform the design of archaeological mitigation for the area if appropriate.

#### 2.2 Methodology

- 2.2.1 A total of nine trenches measuring 50 m x 2 m were excavated and recorded during the evaluation (Figure 2).
- 2.2.2 The trenches were positioned to examine areas of possible below ground disturbance identified by the geophysical survey of the site, and to test apparently blank areas.
- 2.2.3 Topsoil was removed under constant archaeological supervision by a 360° mechanical excavator fitted with a toothless bucket. Trenches were then excavated in spits to the natural geology or to the top of the first archaeological horizon, whichever was encountered first.
- 2.2.4 Recording followed procedures laid down in the OAU Fieldwork Manual (ed. D Wilkinson 1992).



#### 3 Results

#### 3.1 Introduction and presentation of results

3.1.1 As no archaeological features were present, detailed trench descriptions are not given. A general description of deposits encountered is given below and a comprehensive listing of individual trench descriptions and related context data can be found in Appendix A.

#### 3.2 General soils and ground conditions

3.2.1 The soil sequence was generally consistent across the site. Natural clay was revealed at a depth of between 0.56 m and 0.76 m below ground level, overlain by a made ground deposit and a topsoil of varying depths. The made ground was between 0.32 and 0.63 m thick. The made ground was comprised of either light grey clay or light orange-brown clay, with inclusions of gravel, chalk flecks and fragments of broken land drain. Lenses of soil were present within the made ground in some places.

#### 3.3 General distribution of archaeological deposits

3.3.1 No archaeological features or deposits were observed during the course of the evaluation.

#### 3.4 Finds summary

3.4.1 No archaeological finds were recovered during the course of the evaluation.



#### 4 Discussion

#### 4.1 Reliability of field investigation

- 4.1.1 The evaluation has shown that the results of the geophysical survey were generally accurate. The absence of archaeological features detected by the geophysical survey was confirmed by the evaluation trenches.
- 4.1.2 Although many of the trenches flooded to at least some extent, the trenches were dry enough on initial excavation for the absence of archaeological features to be established with certainty.

#### 4.2 Evaluation objectives and results

- 4.2.1 To identify the presence/absence of buried archaeological remains within the proposed Whitbred Borrow Area: No archaeological features were observed within the evaluation trenches.
- 4.2.2 To determine (where possible) the nature, depth, extent, character and date of any archaeological deposits or features encountered: No archaeological features were observed within the evaluation trenches.
- 4.2.3 To determine the condition or state of preservation of any archaeological deposits or features encountered: No archaeological features were observed within the evaluation trenches.
- 4.2.4 To determine the likely range, quality and quantity of artefactual and environmental evidence present: No archaeological finds were recovered during the course of the evaluation.

#### 4.3 Interpretation

4.3.1 The exposed stratigraphy revealed an extensive layer of made ground which was seen within all of the trenches. This deposit may be associated with previous construction work on the nearby A421.

#### 4.4 Significance

4.4.1 The presence of a layer of made ground directly overlying the natural clay indicates that the site has previously been stripped of topsoil. While it is not known whether the underlying clay was also truncated at the same time, the absence of any archaeological features within the excavation trenches suggests that this may have been the case. It is considered likely, therefore, that any archaeological features which may have been present at the site, would have been damaged or destroyed during this process.



# APPENDIX A. TRENCH DESCRIPTIONS AND CONTEXT INVENTORY

Trench 150											
General de	escriptio	n	Orientatio	on	E-W						
				ottled yellow-blue-grey clay		h (m)	0.66				
				overlain by a light grey clay overlain by topsoil. The	Width (m)		2				
	s devoid		contained a single modern	Length (m) 50		50					
Contexts											
context no	type	Width (m)	Depth (m)	comment	finds	date					
150000	Layer	-	-	-							
150001	Layer	-	-	-							
150002	Layer	-	-	Natural	-	-					

Trench 151										
General d	escriptio	Orientati	on	E-W						
				ottled yellow-blue-grey clay		th (m)	0.60			
				overlain by a light grey clay rn overlain by topsoil. The		)	2			
trench was east to we The depth	s devoid o st. The de	of archaeo epth of the		m)	50					
context	type	Width (m)	Depth (m)	comment	finds	date				
151000	Layer	-	-							
151001	Layer	-	-	-						
151002	Layer	-	Natural	-	-					

Trench 152										
General d	escriptio	Orientati	on	N-S						
				ottled yellow-blue-grey clay		th (m)	0.76			
				overlain by a light grey clay rn overlain by topsoil. The	Width (m	)	2			
trench was	•			in ovenam by topson. The	Length (m) 50					
Contexts										
context no	type	Width (m)	Depth (m)	comment	finds	date				
152000	Layer	-	0.13	Topsoil	-	-				
152001	Layer	-	-							
152002	Layer	-	-	Natural	-	-				



Trench 153										
General d	escriptio	Orientati	on	N-S						
The trench			Avg. dep	th (m)	0.71					
gravels, v		Width (m) 2		2						
The trench				s in turn overlain by topsoil.	Length (	m)	50			
Contexts							•			
context no	type	Width (m)	Depth (m)	comment	finds	date				
153000	Layer	-	Topsoil	-	-					
153001	Layer	-	-							
153002	Layer	-	-	-						

Trench 154										
General d	lescriptio	n	Orientatio	n	E-W					
The trenc				h (m)	0.66					
				by a grey-brown clay made n by topsoil. The trench was			2			
devoid of			in ovenan	T by topson. The trenen was	Length (m) 50		50			
Contexts										
context no	type	Width (m)	Depth (m)	comment	finds	date				
154000	Layer	-	Topsoil	-	-					
154001	Layer	-	-	-						
154002	Layer	-	-	-						

Trench 155										
General d	escriptio	n	Orientati	ion	E-W					
The trenc				oth (m)	0.78					
				by a yellow-grey clay made n by topsoil. The trench was		n)	2			
devoid of	•		iii ovenaii	ir by topsoil. The treneir was	Length (m) 50		50			
Contexts										
context no	type	Width (m)	Depth (m)	comment	finds	date				
155000	Layer	-	Topsoil	-	-					
155001	Layer	-	-	-						
155002	Layer	-	Natural	-	-					

Trench 156		
General description	Orientation	E-W
The trench consisted of a natural of blue-grey clay with areas of	Avg. depth (m)	0.66
orange-brown gravelly clay, overlain by an orange-brown clay made ground layer, which was in turn overlain by topsoil. The	Width (m)	2



trench was	s devoid o	f archaeo	Length (m)	50					
Contexts									
context no type Width (m) Depth comment finds date									
156000	Layer	-	0.29	Topsoil	-	-			
156001	Layer	-	0.34	Made ground	-	-			
156002	Layer	-	-	Natural	-	-			

Trench 157															
General description  The trench consisted of a natural of blue-grey clay with areas of orange-brown gravelly clay, overlain by a grey-brown clay made ground layer, which was in turn overlain by topsoil. The trench was						Width (m)									
								devoid of archaeology.					Length (m)		50
								Contexts							
context no	type	Width (m)	Depth (m)	comment	finds	date	date								
157000	Layer	-	0.32	Topsoil	-	-	-								
157001	Layer	-	0.30	Made ground	-	-									
157002	Layer	-	-	Natural	-	-									

Trench 158								
General description					Orientation		N-S	
The trend	ch consist	Avg. depth (m)		0.6				
The trench consisted of a natural of light orange sandy clay, overlain by a orange-brown sandy clay, which was in turn overlain by topsoil. The trench was devoid of archaeology.								
						Length (m)		
Contexts							•	
context no	type	Width (m)	Depth (m)	comment	finds	date	date	
158000	Layer	-	0.2	Topsoil	-	-	-	
158001	Layer	-	0.4	Made ground	-	-		
158002	Layer	-	-	Natural	-	-		



#### APPENDIX B. BIBLIOGRAPHY AND REFERENCES

Oxford Archaeology, 1992 Oxford Archaeological Unit Fieldwork Manual, (ed. D Wilkinson, first edition, August 1992)

Scott Wilson, 2007 A421 Improvements M1 Junction 13 to Bedford Environmental Statement, Volume 2. Chapter 7: Cultural Heritage

Scott Wilson, 2008a A421 Improvements M1 Junction 13 to Bedford: Archaeological Appraisal of Proposed Borrow Areas

Scott Wilson, 2008b A421 Improvements: M1 Junction 13 to Bedford. Written Scheme of Investigation for Archaeological Field Evaluation: Whitbred Borrow Area. Report No: PD0241-P2-EV-R273

Stratascan, 2008 A421 Improvements: M1 Junction 13 to Bedford. Phase 2 Borrow Areas: Geophysical Survey Report



#### Appendix C. Summary of Site Details

Site name: Whitbred Borrow Area: Evaluation Report

Site code: A421BD08

**Grid reference:** NGR: 503955 246210

**Type:** Evaluation

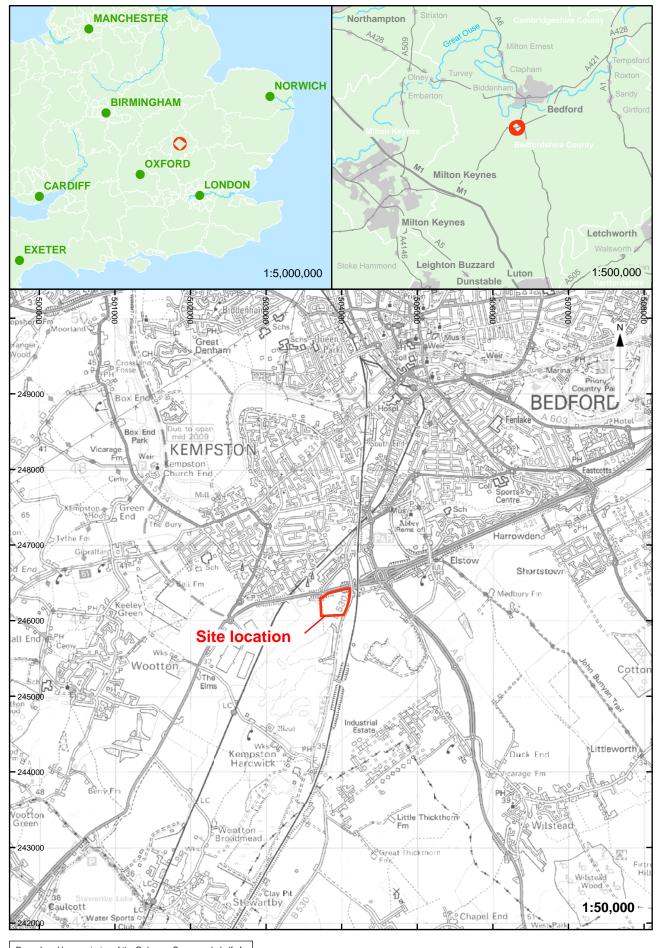
**Date and duration:** January 2009

Area of site: c 11 Ha

**Summary of results:** In January 2009 Oxford Archaeology (OA) undertook an evaluation by trial trenching of the proposed Whitbred Borrow Area for Balfour Beatty Civil Engineering Ltd. The site is centred on NGR 503955 246210.

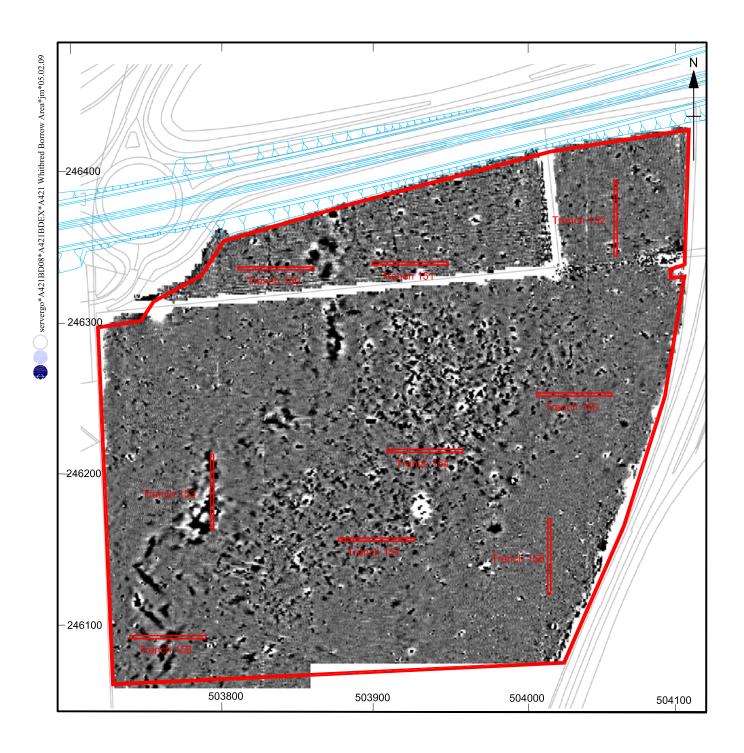
A total of nine trenches were excavated. The evaluation revealed the site to have been heavily truncated by modern activity, possibly relating to previous work on the A421. No archaeological features were observed during the course of the evaluation. Throughout the area, the natural geology was overlain by a layer of made ground which was in turn overlain by topsoil.

**Location of archive:** The archive is currently held at OA, Janus House, Osney Mead, Oxford, OX2 0ES, and will be deposited with Bedford Museum in due course, under the following accession number: BEDFM



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Figure 1: Site location



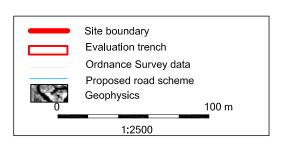


Figure 2: Trench location plan



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