



# Folly Bridge, Arch 4, Oxford

## Archaeological Watching Brief Report

November 2017

Client: Oxfordshire County Council

Issue No: 1

NGR: SP 51446 05513





Client Name: Oxfordshire County Council

Document Title: Folly Bridge, Arch 4, Oxford

Document Type: Archaeological Watching Brief Report

Grid Reference: SP 51446 05513

Planning Reference: 17/01214/LBC

Site Code: OXFOBR17

Invoice Code: OXFOBRWB

Receiving Body: Oxfordshire County Museum Service

Accession No.: OXCMS:2017.148

OA Document File Location: \\10.0.10.86\Projects\o\Oxford Folly Bridge WB\Report

OA Graphics File Location: \\10.0.10.86\invoice codes i thru q\O\_codes\OXFOBRWB

Issue No: 1

Date: November 2017

Prepared by: Alex Davies (Project Officer)

Checked by: John Boothroyd (Senior Project Manager)

Edited by: John Boothroyd (Senior Project Manager)

Approved for Issue by: David Score (Head of Fieldwork)

Signature:



**Disclaimer:**

*This document has been prepared for the titled project or named part thereof and should not be relied upon or used for any other project without an independent check being carried out as to its suitability and prior written authority of Oxford Archaeology being obtained. Oxford Archaeology accepts no responsibility or liability for the consequences of this document being used for a purpose other than the purposes for which it was commissioned. Any person/party using or relying on the document for such other purposes agrees and will by such use or reliance be taken to confirm their agreement to indemnify Oxford Archaeology for all loss or damage resulting therefrom. Oxford Archaeology accepts no responsibility or liability for this document to any party other than the person/party by whom it was commissioned.*

**OA South**

Janus House  
Osney Mead  
Oxford  
OX2 0ES

t. +44 (0)1865 263 800

**OA East**

15 Trafalgar Way  
Bar Hill  
Cambridge  
CB23 8SG

t. +44 (0)1223 850 500

**OA North**

Mill 3  
Moor Lane Mills  
Moor Lane  
Lancaster  
LA1 1QD

t. +44 (0)1524 880 250

e. [info@oxfordarch.co.uk](mailto:info@oxfordarch.co.uk)

w. [oxfordarchaeology.com](http://oxfordarchaeology.com)

Oxford Archaeology is a registered Charity: No. 285627



## Folly Bridge, Arch 4, Oxford

### *Archaeological Watching Brief Report*

*Written by Alex Davies*

*With illustrations by Magdalena Wachnik and Matt Bradley*

#### Contents

Summary .....	i
Acknowledgements .....	ii
<b>1 INTRODUCTION.....</b>	<b>1</b>
1.1 Scope of work.....	1
1.2 Location, topography and geology.....	1
1.3 Historical background.....	1
1.4 Archaeological background .....	2
<b>2 EVALUATION AIMS AND METHODOLOGY .....</b>	<b>3</b>
2.1 Aims .....	3
2.2 Methodology.....	3
<b>3 RESULTS .....</b>	<b>4</b>
<b>4 DISCUSSION .....</b>	<b>5</b>
4.1 Objectives and results .....	5
4.2 Interpretation.....	5
<b>5 CONCLUSION .....</b>	<b>6</b>
<b>BIBLIOGRAPHY .....</b>	<b>7</b>
<b>APPENDIX A TRENCH DESCRIPTIONS AND CONTEXT INVENTORY.....</b>	<b>9</b>
<b>APPENDIX B SITE SUMMARY DETAILS.....</b>	<b>10</b>

## List of Figures

- Fig. 1 Site location
- Fig. 2 Plan of trench
- Fig. 3 Section of wall 1
- Fig. 4 OS 25'' 2nd edition, Oxfordshire XXXIX.3, 1900, showing location of trench over tramway track

## List of Plates

- Plate 1 Oblique shot facing north-west showing walls 1 and 2 either side of the partially exposed arch
- Plate 2 Wall 1 facing west
- Plate 3 The exposed arch facing south, showing wall 5 in the foreground
- Plate 4 Wall 1 in left foreground and wall 2 in right foreground, with wall 5 in the background. Facing north



## Summary

A watching brief on the Grade II listed Folly Bridge, Arch 4, was commissioned by Oxfordshire County Council ahead of repairs. Three previously unknown walls were found within the fill of the bridge, constructed on the bridge vaults. No finds were recovered during the works, although the position of the walls suggests that they were related to the horse-tram system in use between 1887-1914. The features may have been built in order to consolidate the ground directly beneath the tracks. No features pre-dating the 19th-century were found.

## Acknowledgements

Oxford Archaeology would like to thank Oxfordshire County Council for commissioning this project. Thanks is also extended to David Radford who monitored the work on behalf of for their advice and guidance. The project was managed for Oxford Archaeology by John Boothroyd.

## **1 INTRODUCTION**

### **1.1 Scope of work**

- 1.1.1 Oxford Archaeology (OA) was commissioned by Oxfordshire County Council to undertake an archaeological watching brief at Folly Bridge, Arch 4, Oxford.
- 1.1.2 The work was undertaken as a condition of Planning Permission (planning ref. 17/01214/LBC) to inform the Planning Authority in advance of a submission of a Planning Application. A brief was set by David Radford, Oxford City Council Archaeologist, and a written scheme of investigation was produced by OA detailing the Local Authority's condition of listed building consent (OA 2017). This document outlines how OA implemented the specified requirements.

### **1.2 Location, topography and geology**

- 1.2.1 The site is located at Folly Bridge, at the northern end of Abingdon Road, Oxford (Fig. 1; NGR: SP 51446 05513). The top of the bridge is c 58.5m above Ordance Datum (aOD).
- 1.2.2 The area of proposed repair works consists of a four-arched bridge, Folly Bridge, which crosses the channel sequence of the River Thames. The focus of works is on the southern, or fourth arch, which crosses a Victorian canal cut. The 19th-century bridge is a Grade II listed building. Earlier phases of the crossing form part of a Scheduled Ancient Monument, the Grandpont causeway.
- 1.2.3 The geology of the area is mapped as alluvium (BGS 2017), comprising soft to firm consolidated, compressible silty clay, but can contain layers of silt, sand, peat and basal gravel. A stronger, desiccated surface zone may be present.

### **1.3 Historical background**

- 1.3.1 Until the mid-Saxon period, evidence for human activity around St Aldates is limited to an early Saxon ford and botanical evidence of a cleared landscape.
- 1.3.2 From the mid Saxon period onwards, there is evidence for human activity along most of the length of St Aldates. Much of this evidence comprises wattle riveting of banks and flax retting. By the 9th-century a series of alluvial islands between channels of the Thames had been exploited as river crossing (Beckley and Radford 2012, 33).
- 1.3.3 Human activity on the flood plain increased in the late Saxon period, including settlement. Evidence of land reclamation was revealed c. 100m to the south of Folly Bridge, where dumps of clay and other material was recorded containing 10th – early 11th-century material (Dodd 2002).
- 1.3.4 Durham (1984, 87) suggests the Grandpont causeway existed by 1092. A 16th-century map belonging to Brasenose College shows a large stone bridge with multiple flood arches that crosses the gravel islands of Thames Floodplain south of Oxford. It also appears to show a causeway arch on the north side of the bridge.
- 1.3.5 The construction of the crossing was followed by a program of land reclamation and settlement along the remainder of St Aldates.

- 1.3.6 The current Folly Bridge is a Grade II listed building built in 1821. The 19th-century work was inserted into the earlier bridge structure forming part of the medieval Grandpont Causeway, which has been classified as a Scheduled Monument.

## 1.4 Archaeological background

- 1.4.1 A detailed archaeological watching brief was undertaken during tunnelling and manhole excavations for British Telecom in 1991, c 50m to the north of Folly Bridge. The earliest deposits recorded were radiocarbon-dated to the Mesolithic period and comprised grey gravelly clays with preserved plant tissue and molluscs. The deposits indicated a channel containing slow flowing water. The river deposits were overlain by a stony surface made of small to medium-sized pebbles of Corallian limestone. Although inconclusive the evidence suggests that the stones were intentionally placed to form a ford, sometime during or before the Middle Saxon period. The works revealed a number of largely vertical timbers on an E-W alignment. One of the timbers was radiocarbon-dated to AD 600-900. The east part of the BT tunnel revealed a 4m wide structures of large limestone slabs bonded with a clayey mortar believed to form part of the Grandpont (Dodd 2002).
- 1.4.2 Three trenches were excavated c, 30m to the north, northeast and east of Folly Bridge in 1994. The earliest evidence for occupation dated no earlier than the late-12th-century and may not have been continuous thereafter. The area of Trench 1 (c 50m to NE) identified marginal land on the edge of the Trill Mill Stream. A timber structure was also recorded on the stream edge which may have been reinforcing the bank, which was of mid-14th-century date or later. Trench 2 (40m to the east) recorded dumping in the 13th- and 14th-centuries to consolidate the ground. Dumping continues across the site in the later medieval period. Post-medieval structures were found in Trenches 1 and 3 (Dodd 2002).

## **2 EVALUATION AIMS AND METHODOLOGY**

### **2.1 Aims**

2.1.1 The project aims and objectives were as follows:

- i. To conduct a programme of archaeological observation and recording during repair works to Folly Bridge.
- ii. Produce an appropriate contextualised record (in appropriate archival format) of the bridge arch stonework to be replaced, suitably annotated, for future bridge and heritage management purposes.
- iii. Intermittent monitoring to ensure that the works do not impact on any in situ pre- Victorian fabric that would be protected by the 1979 AMAA Act.
- iv. Identify and record the character of the bridge fill for future management purposes noting any significant re-used historic building material. Identify the character of the current fill and whether any reused historic store work has been used in the fill.

### **2.2 Methodology**

2.2.1 A photographic record was undertaken of the bridge and the impacted fabric of the arch.

2.2.2 It was ensured that no works impacted the fabric predating the 19th-century. The possibility of medieval fabric surviving within the bridge abutments was highlighted.

2.2.3 Archaeological features were recorded and characterised.

### 3 RESULTS

- 3.1.1 The watching brief concerned a trench on the eastern side of Arch 4, Folly Bridge (Fig. 2).
- 3.1.2 In the centre of the trench the top of the bridge vault was exposed, comprising roughly dressed and well-dressed limestone pieces and coarse limestone mortar.
- 3.1.3 At the southern end of the trench, two parallel walls were exposed lying on the southern curve of the vault, reaching to the full height of the arch (Fig. 3; Plate 1 and 2). The walls comprised roughly dressed and some well-dressed, possibly reused, limestone pieces with limestone mortar and gravel. The walls were observed to a height of up to 1.20m, although the bases were not exposed.
- 3.1.4 The western wall, 1, was at least 0.40m wide and 1.20m long, although the western and southern sides of the wall remained beyond the areas of excavation. The eastern wall, 2, was 0.60m wide, although the eastern side had been damaged by services. The walls were separated by a distance of 0.80m, filled with crushed limestone gravel and coarse sand.
- 3.1.5 An additional wall, 5, was discovered on the northern side of the arch. This was 0.65m wide, also comprising a mixture of roughly dressed and well-dressed limestone pieces with a limestone mortar. This may have been a continuation of wall 2 at a slightly different angle (Plates 4 and 5).
- 3.1.6 All the exposed features and material stratigraphically post-date the current bridge, rebuilt in 1821.

## 4 DISCUSSION

### 4.1 Objectives and results

- 4.1.1 One of the objectives of the watching brief was to ensure that works did not impact any in situ fabric relating to the various phases of the pre-19th-century Thames. The earliest features recognised relate to the current 1821 bridge, and the works therefore did not impact on the Scheduled Ancient Monument of the Grandpont causeway.
- 4.1.2 A further objective was to identify and record the character and fill of the bridge. This comprised crushed limestone gravel and coarse sand. No positive evidence was recovered that this comprised reused material.
- 4.1.3 Three related and previously unrecorded walls within the bridge fill were recorded. These were built on top of the 1821 bridge vault, and are therefore later. The stones used comprised both undressed or roughly dressed rubble, as well as some dressed and faced pieces. It is possible that at least the dressed stones are reused, although there was no evidence to suggest where the stones originated from. It is possible that the walls relate to the late-19th-century tram that crossed the bridge. This interpretation is discussed below.

### 4.2 Interpretation

- 4.2.1 The three previously unrecorded walls appear to have been built on top of the bridge vault to consolidate the roadway above. This may have been related to the construction of the horse-trams that served Oxford between 1881-1914. The extension to the line that crossed Folly Bridge was opened in 1887 (Hart 1972). Most of the lines were single-tracked, although the second edition Ordnance Survey map of 1900 shows a double-track loop on Folly Bridge (Fig. 4). The tracks are shown to encompass the entire width of the bridge except pavements on either side, with the tracks passing close to the curbs. It is possible that the walls uncovered during the watching brief were built as part of the construction of the tram system, with the tracks laid directly on top of the walls acting as reinforcement. Although the width of neither wall 1 nor wall 2 is known, they are separated by 0.80m. The gauge of the former tram was 4ft (1.22m; Hart 1972, 224), and the walls would therefore have been suitably placed to accommodate the tracks. The position of wall 2 immediately adjacent to the modern pavement curb appears to support this interpretation, corresponding with the 1900 Ordnance Survey map.

## 5 CONCLUSION

- 5.1.1 The watching brief on the Grade II listed Folly Bridge, Arch 4, was commissioned ahead of repairs in order to record the fill of the bridge, any previously unknown archaeological finds or features, as well as to ensure that pre-19th-century fabric relating to earlier phases of the bridge were not impacted.
- 5.1.2 The watching brief recorded three previously unknown walls within the fill of the bridge. These were later than the present bridge, rebuilt in 1821, and constructed on the bridge vaults. No finds were recovered during the works, although the position of the features suggests that they were related to the horse-tram system in use between 1887-1914. The walls may have been built in order to consolidate the ground directly beneath the tracks.

## BIBLIOGRAPHY

Beckley, R, and Radford, D, 2012 *Oxford Archaeological Resource Assessment 2011: Anglo-Saxon and Viking*

BGS 2017 *British Geology Viewer*, accessed online:  
<http://mapapps.bgs.ac.uk/geologyofbritain/home.html>

Dodd, A, 2003 *Oxford Before the University: The late Saxon and Norman archaeology of the Thames Crossing, the defences and the town*, Oxford, Oxford Archaeology Thames Valley Landscapes Monograph **17**.

Durham, B, 1984 The Thames crossing at Oxford: archaeological studies 1979-82, *Oxonensia* **49**, 57-100

Hart, HW 1972 The Horse-Trams of Oxford, 1881-1914, *Oxonensia* **37**, 221-6

OA 2017 *Folly Bridge, Arch 4, Oxford. Written Scheme of Investigation, Archaeological Watching Brief*, Unpublished Client Report



## APPENDIX A TRENCH DESCRIPTIONS AND CONTEXT INVENTORY

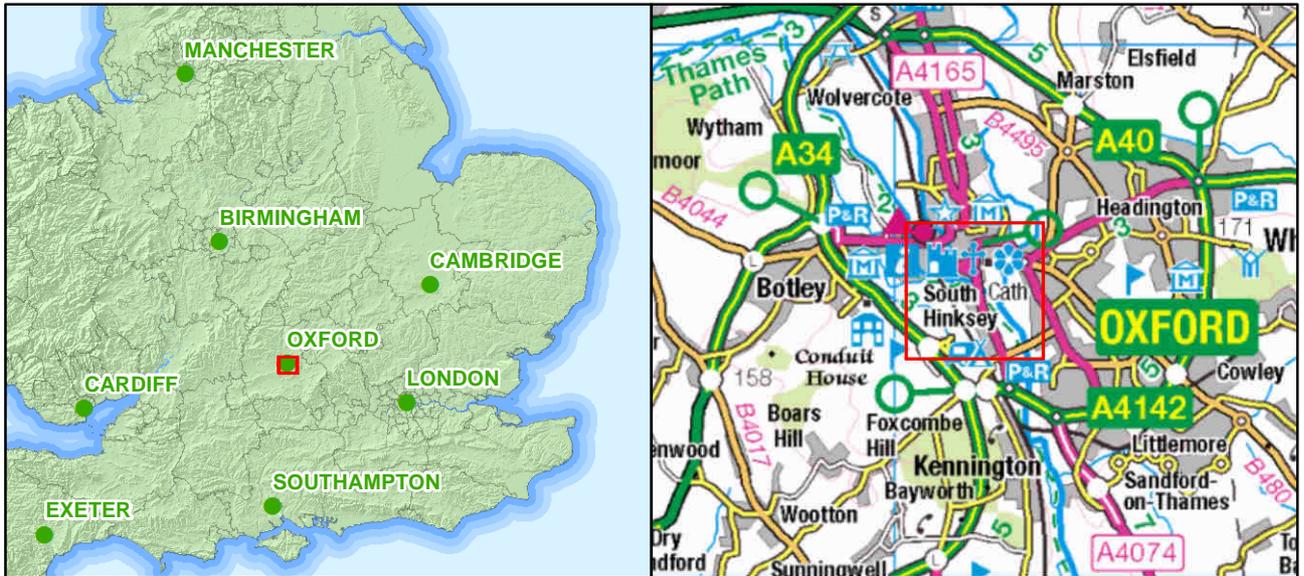
Context No.	Type	Width (m)	Depth (m)	Description	Finds	Date
1	Masonry	>0.40	>1.20	Wall. Roughly dressed and semi-dressed and faced limestone. Limestone mortar. Three courses observed.	-	-
2	Masonry	0.60	>1.00	Wall. Roughly dressed and semi-dressed and faced limestone. Limestone mortar.	-	-
3	Masonry	>0.70	-	Bridge arch. Roughly dressed and semi-dressed limestone with course limestone mortar. Coursed E-W.	-	-
4	Fill	-	>1.20	Crushed limestone gravel and course sand. Fill on top of 3.	-	-
5	Masonry	0.95	>0.45	Wall. Roughly dressed and semi-dressed and faced limestone. Limestone mortar.	-	-
6	Void	-	-	-	-	-

**APPENDIX B****SITE SUMMARY DETAILS**

**Site name:** Oxford Folly Bridge, Arch 4  
**Site code:** OXFOBR17  
**Grid Reference** SP 51446 05513  
**Type:** Watching Brief  
**Date and duration:** 26/9/17-3/10/17

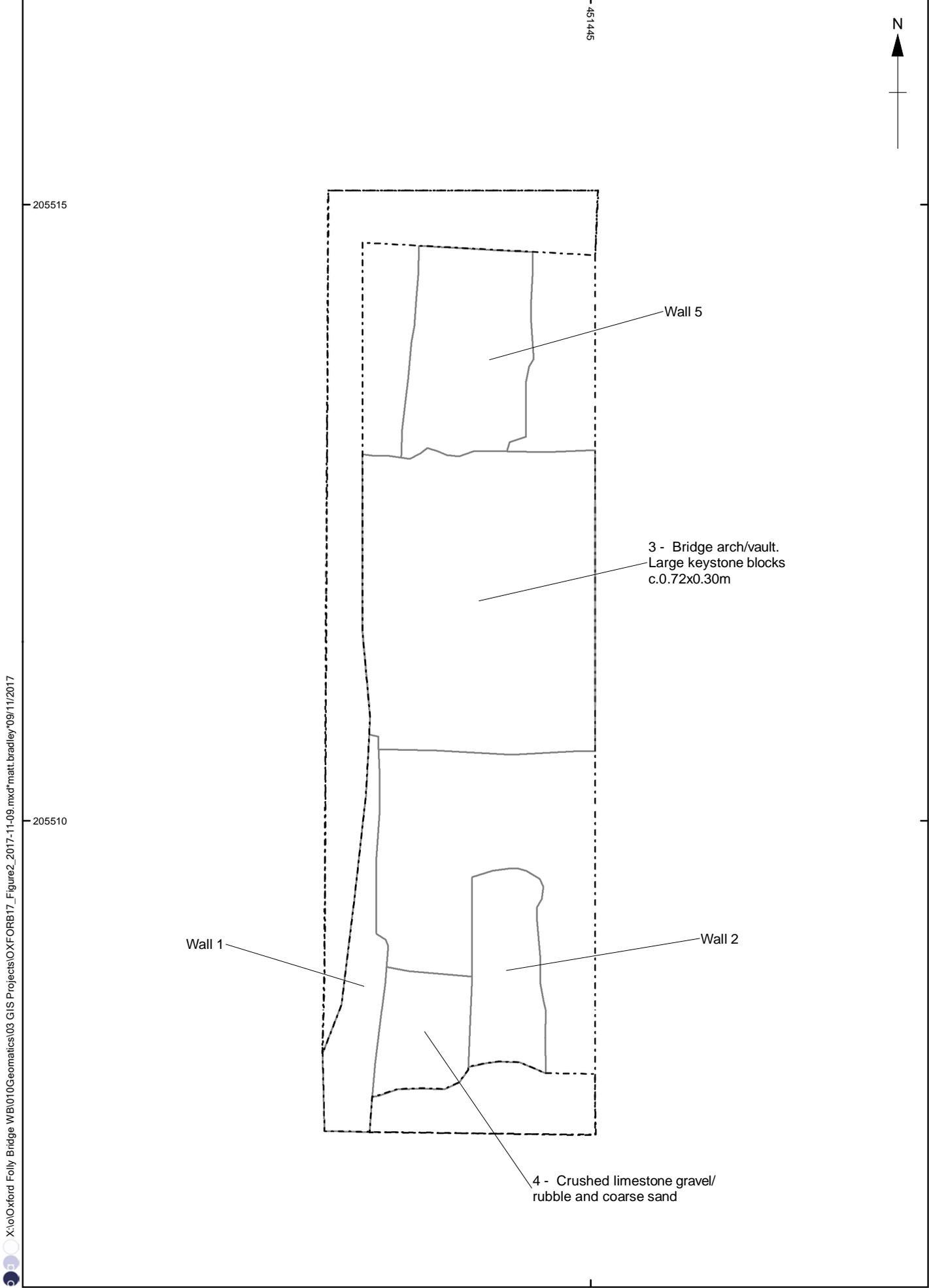
**Location of archive:** The archive is currently held at OA, Janus House, Osney Mead, Oxford, OX2 0ES, and will be deposited with Oxfordshire County Museum Service in due course, under the following accession number: OXCMS:2017.148.

**Summary of Results:** A watching brief on the Grade II listed Folly Bridge, Arch 4, was commissioned by Oxfordshire County Council ahead of repairs. Three previously unknown walls were found within the fill of the bridge, constructed on the bridge vaults. No finds were recovered during the works, although the position of the walls suggests that they were related to the horse-tram system in use between 1887-1914. The features may have been built in order to consolidate the ground directly beneath the tracks. No features pre-dating the 19th-century were found.



Contains OS data © Crown Copyright and database right 2017

Figure 1: Site location



X:\Oxford Folly Bridge\WB10\GIS\Projects\OXFORB17\_Figure2\_2017-11-09.mxd matt.bradley\09/11/2017

0 1:40 @ A4 2.5 m

Figure 2: Plan of Trench

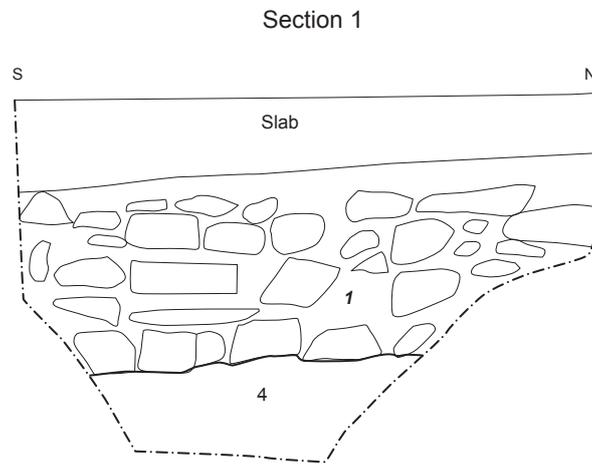


Figure 3: Section of wall 1

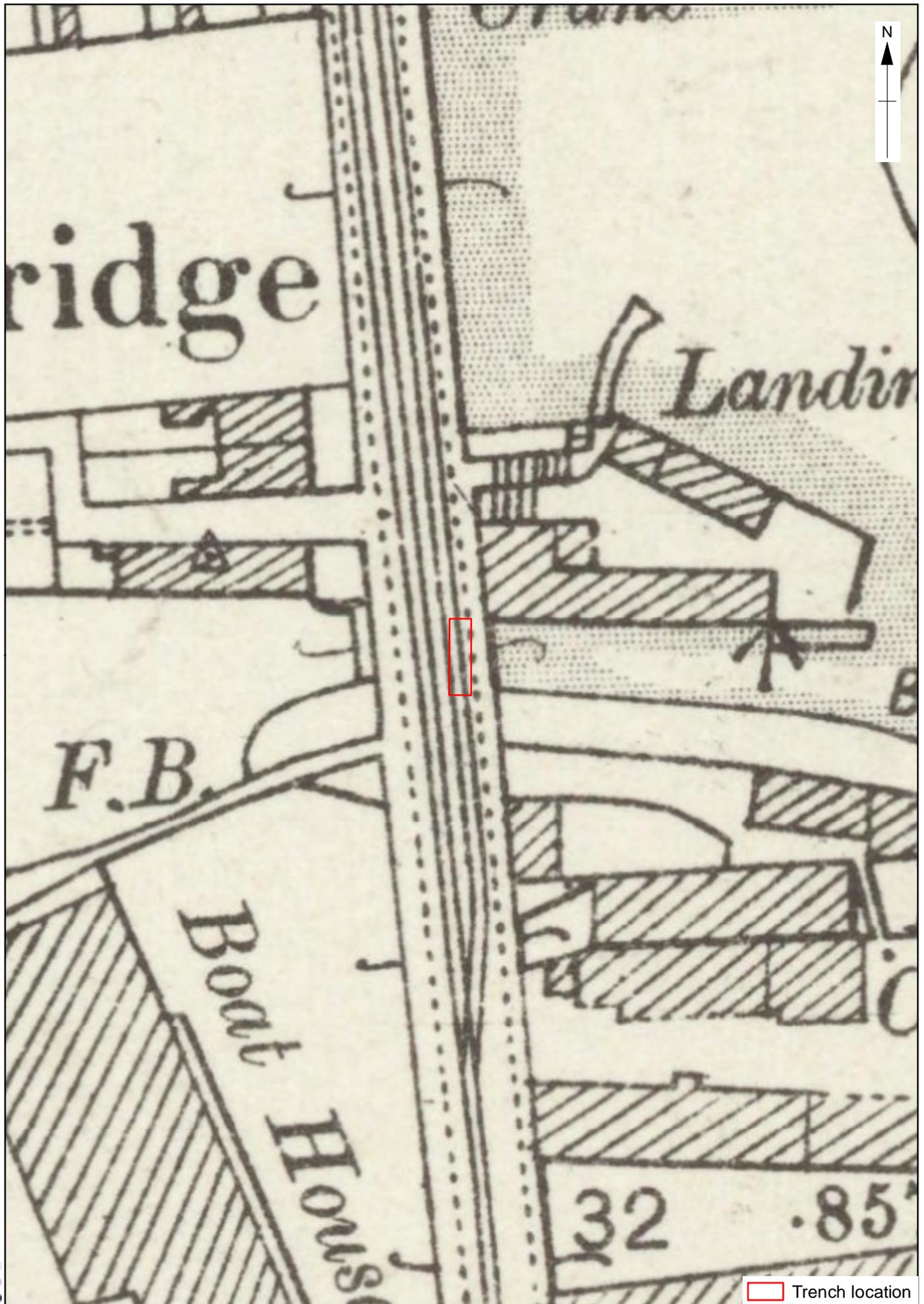


Figure 4: OS 25" 2nd Edition, Oxfordshire XXXIX.3 showing location of trench over tramway track



Plate 1: Oblique shot facing north-west showing walls 1 and 2 either side of the partially exposed arch



Plate 2: Wall 1 facing west



Plate 3: The exposed arch facing south, showing wall 5 in the foreground



Plate 4: Wall 1 in left foreground and wall 2 in right foreground, with wall 5 in the background. Facing north



**Head Office/Registered Office/  
OA South**

Janus House  
Osney Mead  
Oxford OX20ES

t: +44 (0) 1865 263 800  
f: +44 (0) 1865 793 496  
e: [info@oxfordarchaeology.com](mailto:info@oxfordarchaeology.com)  
w: <http://oxfordarchaeology.com>

**OA North**

Mill 3  
Moor Lane  
Lancaster LA1 1QD

t: +44 (0) 1524 541 000  
f: +44 (0) 1524 848 606  
e: [oanorth@oxfordarchaeology.com](mailto: oanorth@oxfordarchaeology.com)  
w: <http://oxfordarchaeology.com>

**OA East**

15 Trafalgar Way  
Bar Hill  
Cambridgeshire  
CB23 8SQ

t: +44 (0) 1223 850500  
e: [oaeast@oxfordarchaeology.com](mailto: oaeast@oxfordarchaeology.com)  
w: <http://oxfordarchaeology.com>



**Director:** Gill Hey, BA PhD FSA MCIfA  
*Oxford Archaeology Ltd is a  
Private Limited Company, N<sup>o</sup>: 1618597  
and a Registered Charity, N<sup>o</sup>: 285627*