



MILLER BRIDGE, KENDAL, CUMBRIA

Archaeological Watching Brief: Supplementary Report



Oxford Archaeology North

February 2010

Balfour Beatty

Issue No: 2009-10/1006

OAN Job No: L10133

NGR: SD 5175 9269

Document Title: MILLER BRIDGE, KENDAL, CUMBRIA

Document Type: Archaeological Watching Brief: Supplementary Report

Client Name: Balfour Beatty

Issue Number: 2009-10/1006

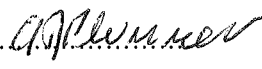
OA Job Number: L10133

National Grid Reference: SD 5175 9269

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SUMMARY

Following a proposal by Balfour Beatty to undertake further exploratory roadworks for the laying of a service pipe across Miller Bridge, Kendal, Cumbria (SD5175 9269), Cumbria County Council Historic Environment Services (CCCHES) recommended that an archaeological presence should be maintained for the duration of the project. The work was undertaken in March 2009. The bridge is a Scheduled Monument (443) and is also included within the County Sites and Monuments Record for Cumbria (5454), and dates to the early nineteenth century. The current project was further to rapid historical research and a watching brief that had been undertaken ahead of, and during, exploratory roadworks on the bridge in September 2008 (OA North 2008).

The planning, financing, and personnel involved in the construction of the bridge are all well documented, and this research revealed that the predecessors of the present bridge were numerous, due to their timber construction and the periodic flooding of the River Kent. From at least the early seventeenth century, successive timber bridges were built, until a stone replacement was constructed in the mid-eighteenth century. However, the burgeoning industrialisation of Kendal, including the building of paper mills and gunpowder works, several woollen mills, and the construction of the new Lancaster and Kendal Canal meant that a new replacement was required by the early nineteenth century.

Subsequently, Kendal Corporation invited Francis Webster, the local architect and Alderman of Kendal, to submit plans and find contractors capable of building the bridge within a narrow time-frame. In local stonemasons, Edward Gibson and James Harrison, Webster found such men, and within only seven months of being proposed, the *Kent Bridge* was designed, built and opened to traffic. It was only later that the bridge became referred to as *Mill Bridge* and later still, the now familiar *Miller Bridge*.

In total, three test pits were excavated on the road surface of the northern side of the bridge. The tarmac surface was removed to reveal a surface comprising large, roughly-hewn stones. It is probable that these large stones, present in all three test pits, are part of the original, early nineteenth century, stone construction of the bridge.

ACKNOWLEDGEMENTS

Oxford Archaeology North (OA North) would like to thank Balfour Beatty for commissioning and supporting the project. Additional thanks are also due to the staff of the County Record Office in Kendal.

Pascal Eloy and Ailsa Westgarth undertook the watching brief. Vicky Bullock and Chris Ridings compiled the report. Mark Tidmarsh produced the drawings and Alison Plummer, who managed the project, also edited the report.

1. CIRCUMSTANCES OF THE PROJECT

1.1 INTRODUCTION

- 1.1.1 Balfour Beatty have proposed undertaking road works, in order to lay a service pipe across Miller Bridge, which is located in the centre of Kendal, Cumbria (SD5175 9269; Fig 1). The bridge, which dates to the early nineteenth century, is a Scheduled Monument (443) and is also included within the County Sites and Monuments Record for Cumbria (5454). In light of its significant historical and social interest, Cumbria County Council Historic Environment Services (CCCHES) requested a programme rapid historical research and that an archaeological presence should be maintained during the course of the road works. The work took place over two phases; initially in July 2008, and finally in March 2009.
- 1.1.2 This document presents the results of both phases of the watching brief in the form of a short report.

2. METHODOLOGY

2.1 INTRODUCTION

- 2.1.1 The watching brief was carried out in accordance with the relevant IFA and English Heritage guidelines (Institute of Field Archaeologists 1999, *Standard and guidance for archaeological Desk-based Assessments*; English Heritage 2006, *Management of Research Projects in the Historic Environment* (MoRPHE)).

2.2 WATCHING BRIEF

- 2.2.1 This programme of field observation recorded accurately the location, extent, and character of any surviving archaeological features and/or deposits exposed during the course of the excavations of test pits. The work comprised the systematic examination of any structural elements of the bridge exposed during the course of the groundworks, and the accurate recording of all archaeological features and horizons, and any artefacts, identified during observation.
- 2.2.2 All groundworks on the site were conducted under constant archaeological supervision and comprised the excavation of three test pits at intervals on the road surface of the bridge. The observation of test pits across Miller Bridge was undertaken at night. Three test pits were excavated at intervals along the road surface of the north side of the bridge (Fig 2), using a pneumatic hammer to remove the tarmac. Subsequently, all three pits were photographed and recorded with measured sketched (with dimensions) drawings (Fig 3).
- 2.2.3 All archaeological features were recorded on OA North's *pro-forma* sheets, using a system based on that of the English Heritage Centre for Archaeology. A monochrome and colour slide photographic record was maintained throughout.

2.3 ARCHIVE

- 2.3.1 A full professional archive has been compiled in accordance with the project design (*Appendix 1*), and in accordance with current IFA and English Heritage guidelines. The paper and digital archive will be deposited in County Record Office (Kendal) on completion of the project.

3. BACKGROUND

3.1 INTRODUCTION

- 3.1.1 While not the oldest of the three stone bridges crossing the River Kent, Miller Bridge dates in some form to at least the early seventeenth century and, as such, is of significant local historical and social interest. In order to highlight this significance, what follows is a brief discussion of local topography and geology in Kendal, and a physical description and brief history of the bridge itself.
- 3.1.2 The subject of the watching brief, Miller Bridge (SD 5175 9269), is one of five road crossings over the river Kent in Kendal. Three of these (Miller Bridge, Stramongate and Nether Bridge) are constructed from stone and constitute the oldest structures, whilst a fourth (Victoria Bridge) is an iron bridge, which, as the name suggests, was constructed for the Jubilee of Queen Victoria in 1887. The fifth and final bridge is a modern structure from the twentieth century.

3.2 TOPOGRAPHY AND GEOLOGY

- 3.2.1 Kendal is situated in the River Kent valley within the old county of Westmoreland, now part of modern day Cumbria. The bridge lies in the centre of medieval Kendal (Plate 1), approximately 0.1km to the east of Stricklandgate and 0.5km to the north-west of Kendal Castle. It spans the river at a point west of Lowther Street.
- 3.2.2 The solid geology comprises Silurian Slates and Kirby Moor Flags with overlying drift deposits of glacial material, such as gravel and boulder clay, which is known to be varied and convoluted in nature and to contain peat in post-glacial hollows (Countryside Commission 1998).

3.3 MILLER BRIDGE

- 3.3.1 The bridge, which is a Scheduled Monument (443) and which is included within the Cumbrian Sites and Monuments Record (SMR 5454), is constructed using grey limestone with three basket voussoir arches, and sturdy piers featuring rounded cutwaters (Plate 1), whilst a date stone on the centre of the south side records a date of construction as 1818 (MDCCCXVIII) (Plate 2). It is now an integral part of Kendal's one-way system, and provides access over the River Kent to the southbound carriageway of the A65.
- 3.3.2 Although this version of the bridge was built in 1818, it is known to have had several predecessors, as cartographic sources attest to (Speed 1611). All three of Kendal's stone bridges (Miller Bridge, Stramongate and Nether Bridge) are featured on this seminal mapping, but there are no earlier references to Miller Bridge, suggesting that the latter pair served as the town's only medieval bridging points.

- 3.3.3 The earlier wooden versions of the Miller Bridge were probably numerous as a plaque laid by the Kendal Civic Society suggests (Plate 4). It records that severe floods repeatedly destroyed these earlier wooden structures, until a stone replacement was constructed in 1743. Certainly, several nineteenth century authors suggest similar events. Britton *et al* (1813, 197) includes a passage, which states that the *Mill Bridge* was built of wood before 1688, and this is corroborated by Mannex (1849; 282), who claims that *Mill Bridge* was built in stone in 1668 and subsequently, rebuilt in 1818 when Kent Lane was widened. However, this is misleading as two stone bridges stood during this period (Nicholson 1861: 148, 294). Nicholson (*ibid*) asserts that the second stone bridge was indeed built in 1743, but it

“was very narrow, and ill adapted to the general medium of intercourse with the canal”.

- 3.3.4 During the early nineteenth century as the burgeoning industrialisation in Kendal reflected wider national trends, new woollen factories were opened at Dockray Hall, Castle and Low Mills. These, along with the paper mills at Burneside and the Gunpowder Mills at Sedgwick, were all powered by water. As the area became the locus for heavy industry, the need for better communications became more pressing and, subsequently, the Lancaster to Kendal Canal was built. By 1818 the Kendal Corporation decided to place canal warehouses at the canal’s terminus in the Aynam area of Kendal, thus engendering the need for a new bridge to provide access to Bridge Street and the wharves further east. This goods terminus would remain an integral part of the transportation of goods in Kendal, until the arrival of the local railway line in 1846 (Nicholson 1861, 294).
- 3.3.5 Subsequently, on the 13th of April, 1818, Kendal Corporation approached local architect, Francis Webster and invited him to not only to submit plans for a replacement bridge, but also to advertise for contractors who could begin work on the building project within one month (by May 4th 1818) (www.waymarking.com/waymarks/WM32DB) Following this, Webster prepared plans for a three-arch, dressed stone bridge with a total span of 130 feet, in under three weeks. Edward Gibson and James Harrison, were awarded the building project with a moderate bid of £888 (Nicholson 1861, 294).
- 3.3.6 Francis Webster laid the foundation stone on May 20th, 1818, in his capacity as both the bridge designer and as Alderman of Kendal (Nicholson 1861, 294). Thus, within only seven months, the bridge had been designed, built, and was opened to traffic. There does, however, appear to be some confusion over its original name. Apparently the bridge was initially called *Kent Bridge*, but became known as *Mill Bridge* by 1833, when John Wood produced his map of the town (OA North 2008). This does seem at variance with nineteenth century writers (Britton *et al* 1813; Mannex 1849), who refer to the bridge and its predecessors as *Mill Bridge*, or, as in the case of Nicholson (1861, 148), as *Miller’s Close Bridge*. It may be that *Kent Bridge* reflects a local colloquial name for the bridge. Within forty years, the name had been altered again to *Miller Bridge*, which has been retained ever since.

4. WATCHING BRIEF RESULTS

4.1 INTRODUCTION

- 4.1.1 A programme of permanent presence monitoring, in the form of a watching brief, was conducted in July 2008 and March 2009. This monitoring involved observing the excavation of test pits at intervals on the road surface of Miller Bridge, prior to the laying of a service pipe. This work was conducted at night, in order to keep traffic disruption to a minimum.

4.2 RESULTS

- 4.2.1 In total, three test pits were excavated on the northern side of the road surface of Miller Bridge, each approximately 1 x 0.6m (Fig 3; Plates 4-6). The tarmac surface was removed to reveal a layer of hardcore to a maximum depth of 0.20m, which overlay a surface comprising large, roughly-hewn stones. During excavation of the test pit at the eastern end of the bridge (Test Pit 3) a modern metal service pipe and pipe trench was encountered. The pipe trench had been backfilled with pale grey sand and gravel.
- 4.2.2 It is possible that the roughly-hewn stones observed to be present in all three test pits, are part of the original, early nineteenth century bridge construction, and any unnecessary damage to the surface should be avoided.

4.3 RECOMMENDATIONS

- 4.3.1 It is recommended that a watching brief should be maintained during any further road works.

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6. ILLUSTRATIONS

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Figure 3: Test pit plans and sections

6.2 LIST OF PLATES

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Plate 3: The commemorative plaque recording the building of the bridge

Plate 4: Test pit 1 showing pipe trench

Plate 5: Test pit 2

Plate 6: Test pit 3

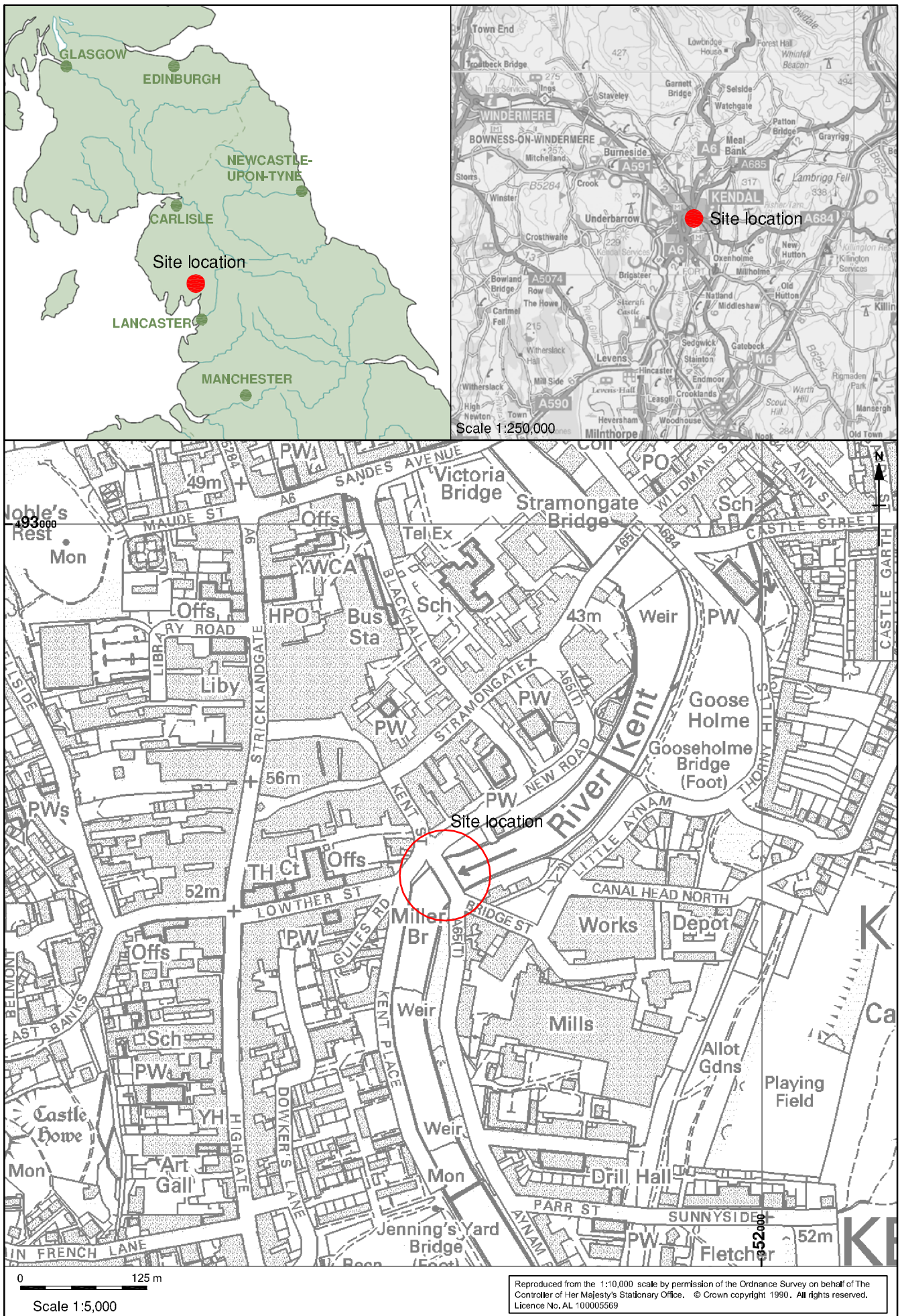


Figure 1: Site Location

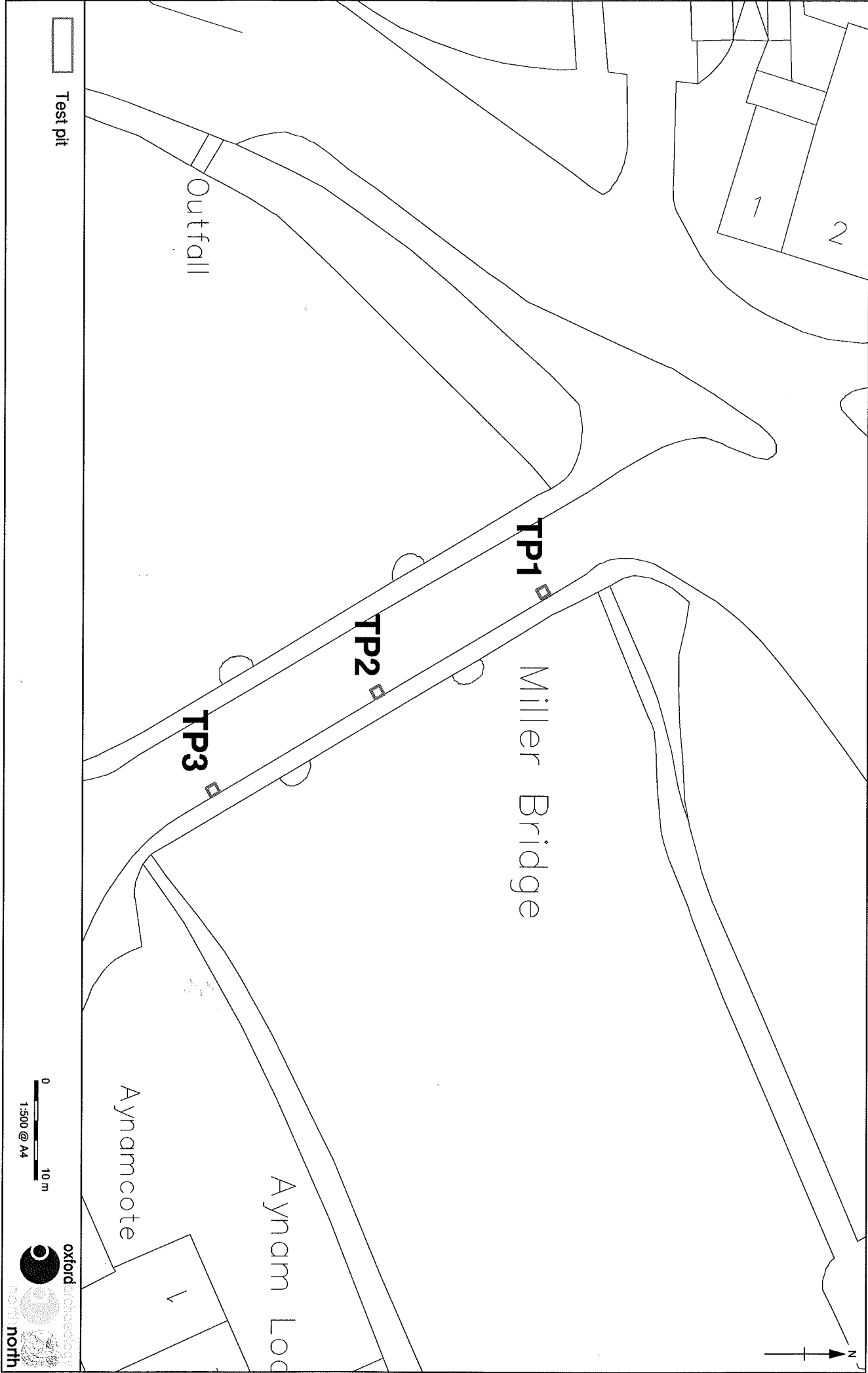
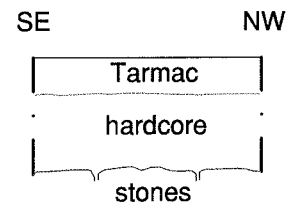
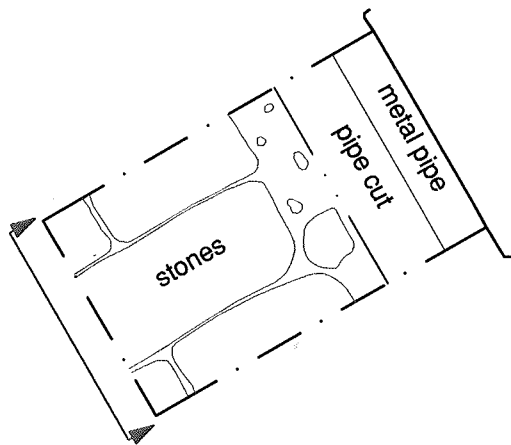
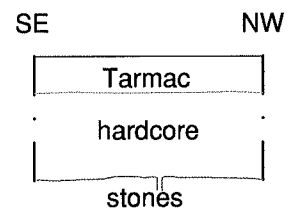
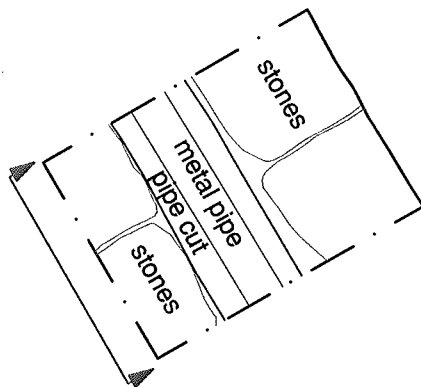


Figure 2: Location of Test pits

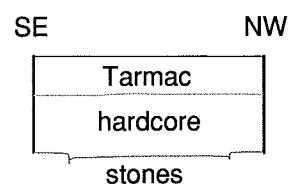
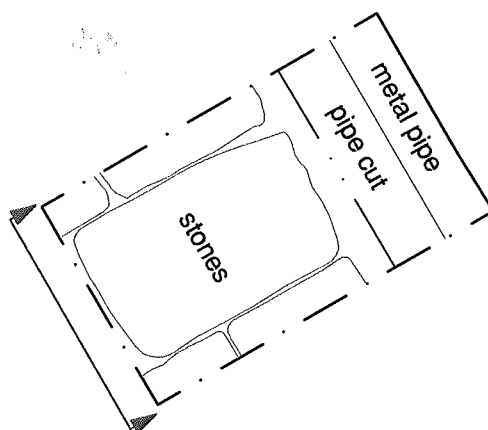
Test pit 1



Test pit 2



Test pit 3



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 — Section location

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Figure 3: Test pit plans and sections

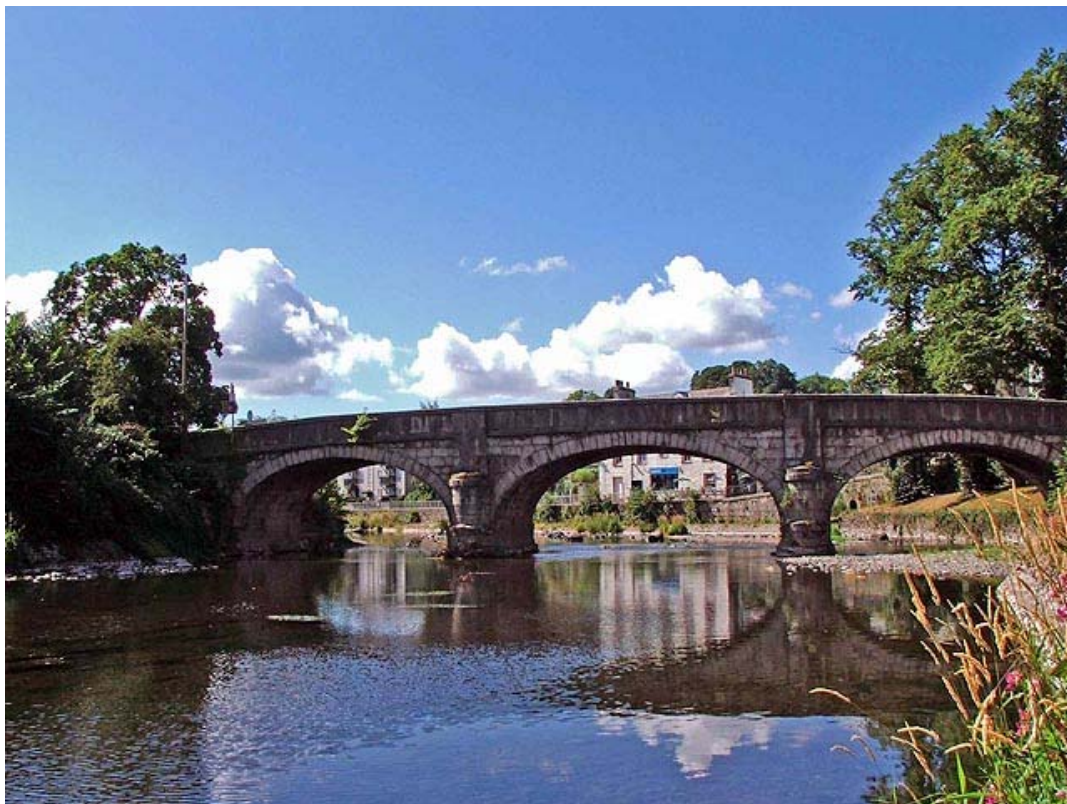


Plate 1: General view of the north side of Miller Bridge

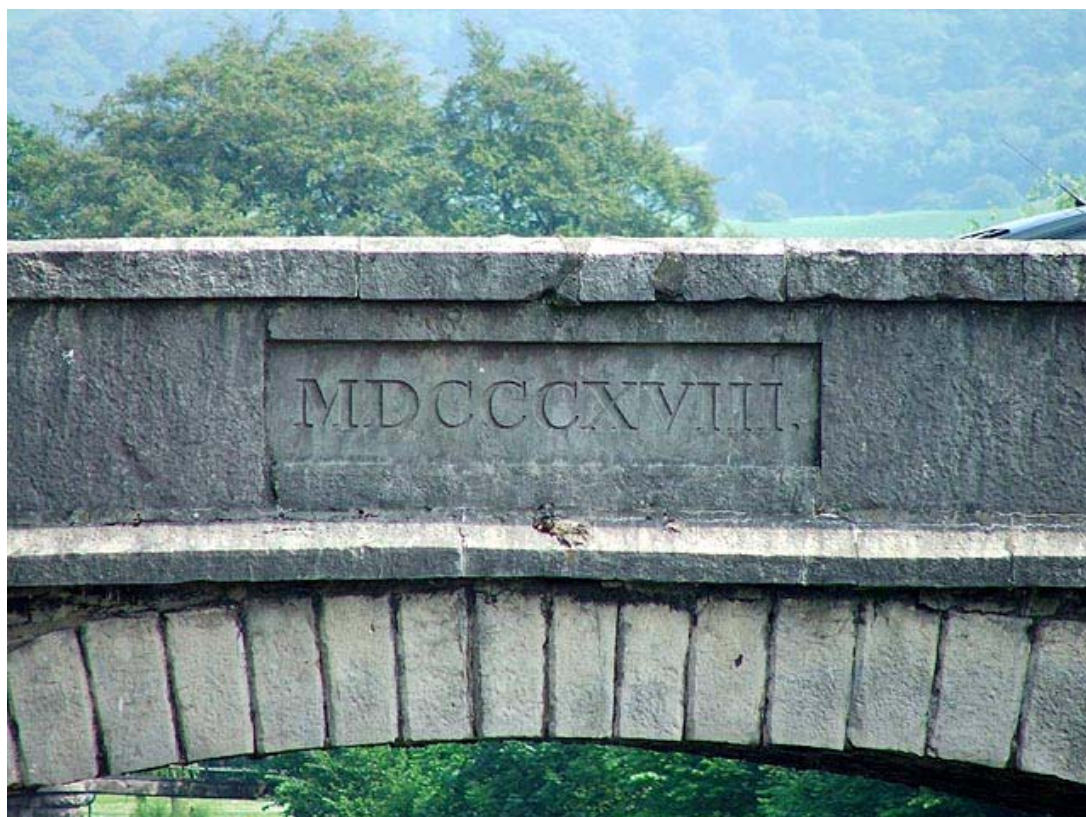


Plate 2: Detail of the date stone

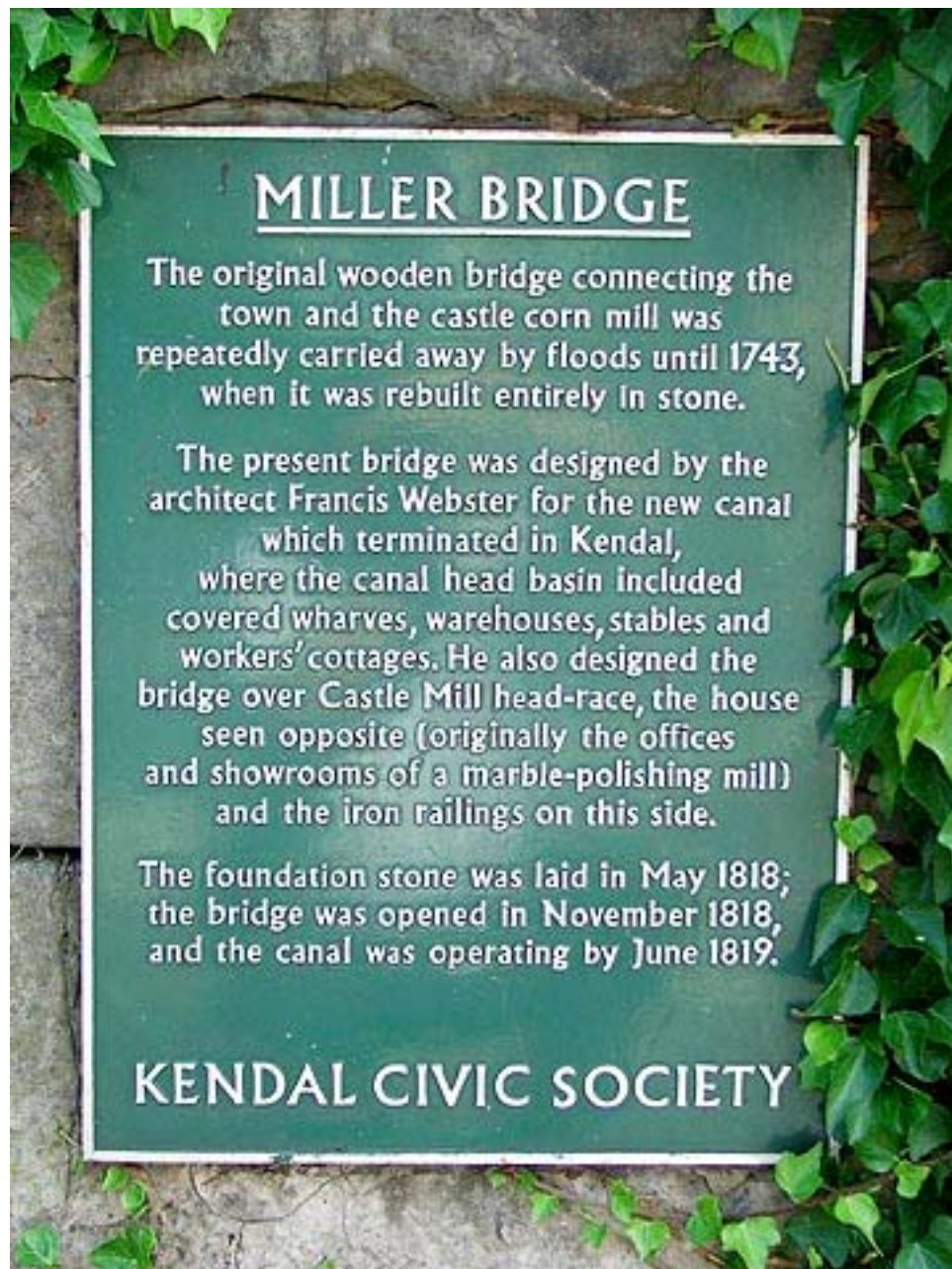


Plate 3: The commemorative plaque recording the building of the bridge



Plate 4: Test pit 1 showing pipe trench



Plate 5: Test pit 2



Plate 6: Test pit 3