



ARCHAEOLOGICAL MONITORING

Northern Archaeological Associates Ltd

Marwood House
Harmire Enterprise Park
Barnard Castle
Co. Durham
DL12 8BN

t: 01833 690800

f: 01833 690801

e: oc@naa.gb.com

w: <http://www.naa.gb.com>

REPLACEMENT GAS MAIN YARM BRIDGE YARM TEESSIDE

Project No.: 1209
Text: Oliver Cooper
Illustrations: Dawn Knowles

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NORTHERN ARCHAEOLOGICAL ASSOCIATES LTD
REPLACEMENT GAS MAIN, YARM BRIDGE, YARM, TEESIDE

Watching Brief Report

Site location: Yarm Bridge, Yarm, Teesside **Grid reference:** NZ 417 133
Development: Gas main **Client:** Northern Gas Networks
Archaeological Consultant: RSK
NAA Monitoring Archaeologists: Gavin Robinson and Oliver Cooper
NAA Project Manager: Oliver Cooper
Dates: 5-12 August 2014 **NAA project number:** 1209

Reasons for watching brief

The scheme comprised the installation of a short section of replacement gas main on Yarm Bridge (Figures 1 & 2), a Scheduled Monument (Scheduled Monument No. 26975) and Grade II* Listed Building (List entry number 1105656). Archaeological monitoring was undertaken under Scheduled Monument Consent (English Heritage reference S00083536) in accordance with a Written Scheme of Investigation (RSK 2014), as there was the potential for excavation to encounter remains of the medieval bridge or its later development. The bridge is considered to have been constructed around AD1400 for Bishop Skirlaw of Durham. It is known to have been repaired between 1562 and 1580 and again in the early 17th century. Further repairs to the bridge took place in 1637, 1651 and 1665. The northern arch was rebuilt in a semicircular shape with a wider span about 1788 before the bridge was considerably widened in the early 19th century, about 1807.

Scope of work

The consented work comprised the excavation within the Scheduled Monument of two pits (1 & 6), approximately 3m by 1m, one at each end of the bridge, for the insertion of a replacement PVC pipe into the existing cast iron main. The excavation of additional pits, two measuring approximately 3m by 1m and one approximately 0.9m by 0.9m (Pit 2), was approved by English Heritage as an amendment to the original Scheduled Monument Consent (Robert Young, letter, 7 August 2014).

The two largest pits (1 & 6) were excavated using a mini-digger, the remainder were hand-excavated. The pit locations and dimensions were dictated by the ground conditions, the extent of previous gas main renewals and the locations of other services, such as water mains, electricity and telecommunication cables. This led to only three pits being excavated within the Scheduled Area (Figure 2): one at each

end (1 & 6) and one towards the centre (2). A number of other pits were excavated to the south of the Scheduled Area.

Results

Pit 1 (Figure 2, Plate 1) was at the northern end of the bridge, in the footway on the eastern side of the road. Initially excavated as a test pit to locate the existing main, it was later extended to the north to facilitate insertion of the new main, culminating in a pit measuring approximately 6.5m by 1.5m (effectively equating in area to three pits). Possible natural silty clay was encountered only beneath the existing gas main, at a depth of 0.9m. The remainder of the pit was excavated through 'made ground' (Plate 2): up to 0.25m of mixed dark grey-brown silt with fragments of brick and tile and tarmac, overlain by a similar depth of paler grey-brown silt, again with brick and tile fragments, and 0.2m of 'type-1' sub-base supporting 0.15m of tarmac and the associated kerbs. There were no in-situ structural remains, although a number of sandstone blocks had been used to support the original cast iron main (Plate 3); of these, two were roughly-squared and may have derived from the earlier bridge structure.

Pit 2 was excavated in the eastern pavement close to the crest of the bridge (Plate 4), and immediately to the south of the northern bridge pier. It measured 1m east to west by 0.5m, and was excavated for the insertion of a small camera. Consequently, the pit was excavated only as far as the existing main, a depth of 0.6m (Plate 5). Only the backfill of existing services (two water mains, two ducted tv cables and one electricity cable) was encountered.

Pit 6 was at the southern limit of the Scheduled area, and measured 2.15m east to west by 1.6m. It was excavated to a depth of 0.6m to locate the existing gas main and any other services. Only modern trench backfill was identified.

Pits 3-5 and 7 were excavated to the south of the Scheduled Monument (Figure 2) and had the following dimensions:

Pit	Dimensions		
	North to south	East to west	Max depth
3	1.15m	1m	0.7m
4	0.5m	0.5m	0.5m
5	4.6m	1.5m	0.8m
7	0.5m	0.5m	0.5m

With the exception of Pit 5, only backfill deposits from the installation of earlier services were encountered. In Pit 5, which was the principal pit at the southern end (and where the new insertion would terminate), the installation of the original gas

main had disturbed a 'lens' of 19th- to 20th-century debris (Plate 6), which had presumably been deposited along the roadside prior to its modern metalling. The lens was approximately 1m long, but no more than 0.05m deep, comprising fire ash/cinders with numerous fragments of brick and tile, scraps of whiteware and stoneware pottery and sherds of machine-made bottle glass. These have not been retained.

Discussion

Based on the scheme's location, its archaeological potential and a review of HER data within 100m of the bridge, the following outline research questions were proposed in the Written Scheme of Investigation (RSK 2014, 4):

- is evidence of the remains of Yarm Bridge or any features associated with it observable within the pipe trench and are these remains dateable?
- has insertion of previous utilities removed traces of Yarm Bridge construction at this location or have any remains survived?
- what impact does the replacement of existing utilities services have on the survival of archaeological remains at this location?
- what is the state of preservation of any remains encountered?
- is there any archaeological evidence for factors which influenced the development of Yarm Bridge?

The excavations did not encounter any in-situ remains of Yarm Bridge, and demonstrated that there was up to 0.9m of made ground associated with the installation of numerous services. At least six separate trenches had previously been excavated in the eastern footway alone. This was not unexpected, as the bridge has for several centuries been the only convenient route across the River Tees, whether for road and foot traffic or for public utilities.

The services were at a relatively shallow depth and unlikely to have damaged the bridge structure, although it is possible that the few fragments of masonry from Pit 1 had formed part of the infill of the bridge. However, they were more likely to have derived from one of many episodes of repair and rebuilding during the 16th to 19th centuries.

The archaeological monitoring did not identify any archaeological features relating to Yarm Bridge or to any earlier settlement, and there was no evidence for riverside craft or industry or the pre-bridge riverside.

Reference

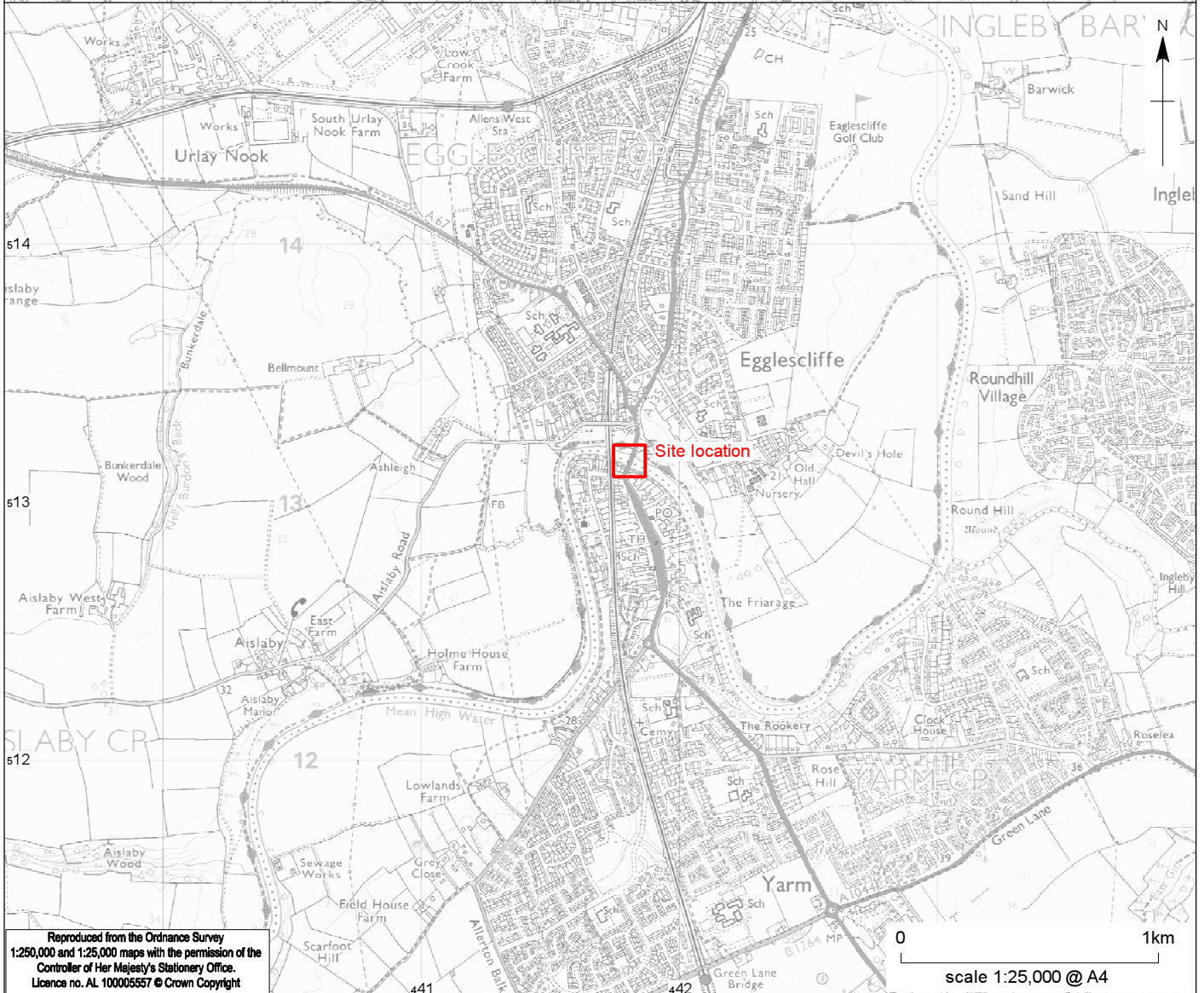
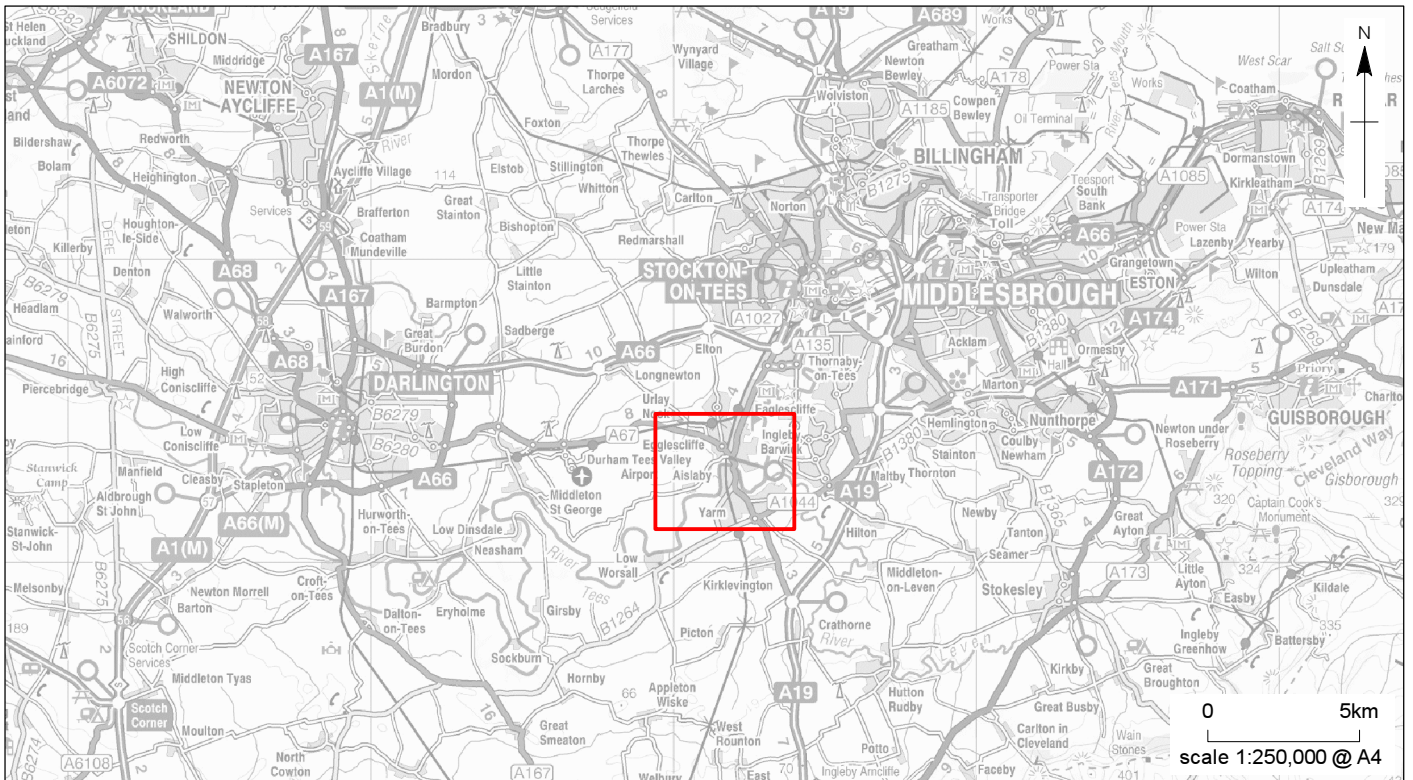
RSK (2014) *Yarm Bridge, Stockton on Tees: Written Scheme of Investigation for an Archaeological Watching Brief*. RSK report **P190410**

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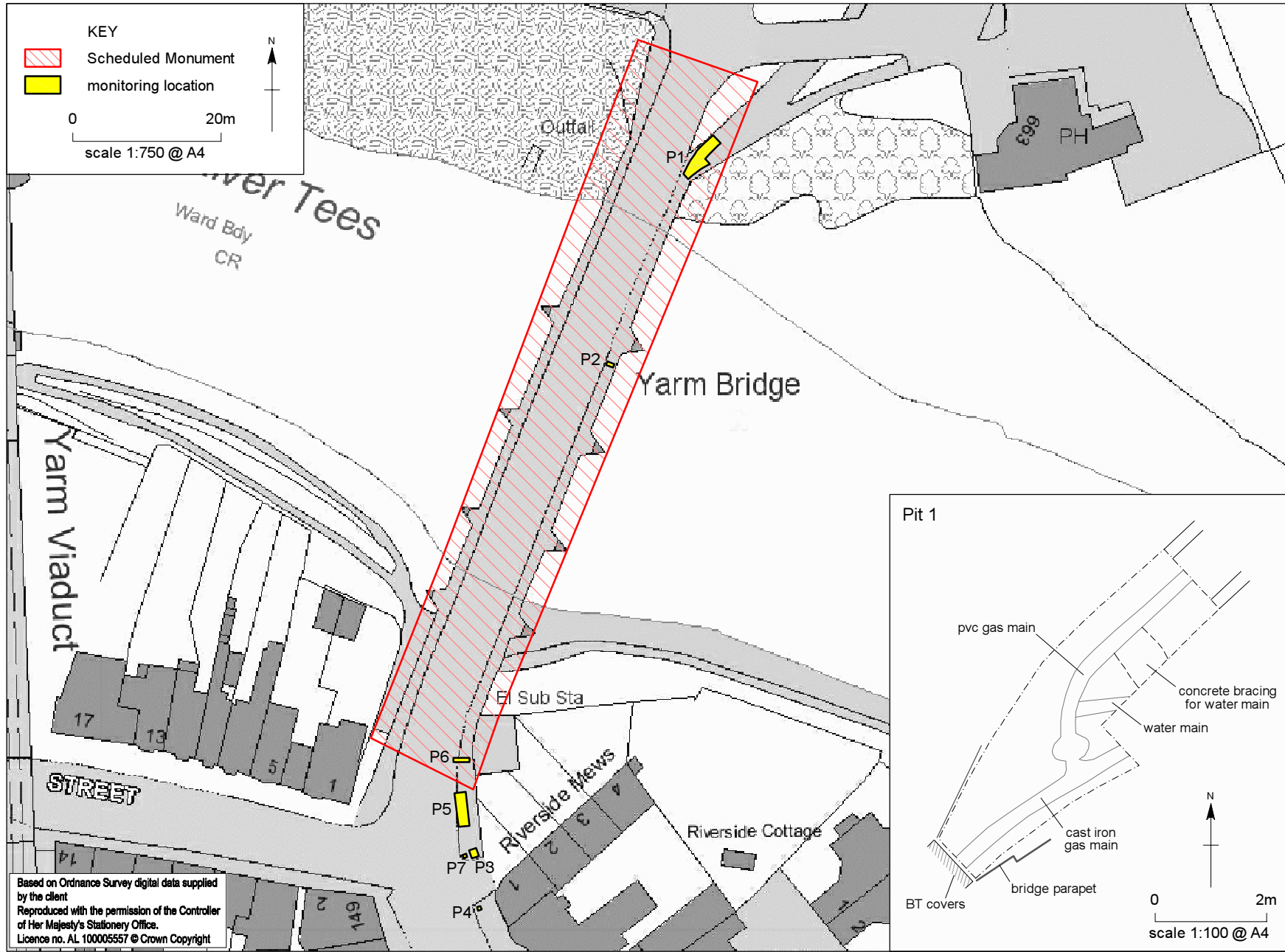
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Yarm Bridge: site location

Figure 1



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Yarm Bridge: location of Scheduled Monument showing monitoring locations

Figure 2



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Yarm Bridge: location of pit 1

Plate 1



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Yarm Bridge: made ground in Pit 1

Plate 2



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*Yarm Bridge: displaced masonry
from bridge repairs*

Plate 3



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Yarm Bridge: location of Pit 2

Plate 4



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Yarm Bridge: Pit 2 from above

Plate 5



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Yarm Bridge: Pit 5 showing lens of debris

Plate 6