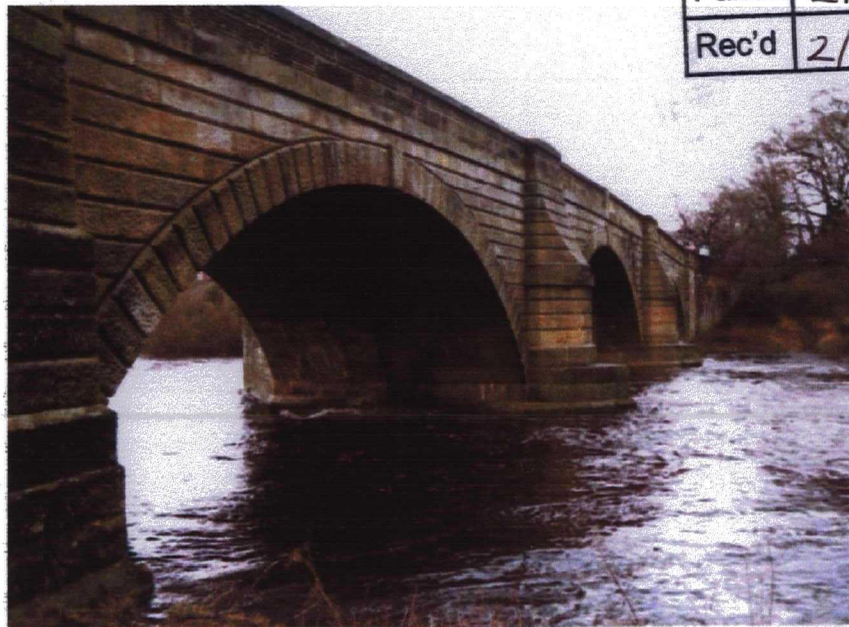


REC. 2/3/04



YORK ARCHAEOLOGICAL TRUST

NYCC HER	
SNY	9506
ENY	2828
CNY	
Parish	2170
Rec'd	2/3/04



AN ARCHAEOLOGICAL ASSESSMENT

TANFIELD BRIDGE,
WEST TANFIELD,
NORTH YORKSHIRE

by Rhona Finlayson

2170 parish

S 9506

E 2828

M 21550

SAM NY 64

**TANFIELD BRIDGE,
WEST TANFIELD,
NORTH YORKSHIRE**

**REPORT ON AN
ARCHAEOLOGICAL DESK TOP ASSESSMENT**

**BY
RHONA FINLAYSON**

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Plate 6, The west side of Tanfield Bridge, south bank showing the steps which lead up to the roadway

ABSTRACT

An archaeological desk top assessment of Tanfield Bridge at West Tanfield (National Grid Reference SE 27007870) was carried out in December 2003/January 2004 by York Archaeological Trust on behalf of British Telecommunications plc. While it is judged that there is a good potential for medieval remains relating to the medieval fortified manor house of Tanfield to survive below ground in the vicinity of the bridge these remains would be unaffected by the proposed work on the bridge.

The bridge itself is a good well-built example of a post-medieval bridge with three segmental arches. Modification has occurred to the bridge in the 19th and 20th century, most notably a widening which doubled its width. The inscribed stones on the inner faces of the bridge marking the division between the North and West Ridings of Yorkshire add to the archaeological significance of the monument. The bridge is currently Grade II Listed and a Scheduled Monument, however it should be noted that, significantly, the English Heritage Monument Protection Programme examined Tanfield Bridge in 2002 and recommended that the bridge be listed as Grade II but that it be de-scheduled, although these recommended changes will not be implemented immediately.*

Unrecorded ducting work of a similar nature to the proposed insertion of British Telecommunications ducting could have disturbed the below ground structure of the bridge along its eastern side. This means that if the proposed new work follows the route of the existing duct the new work would be unlikely to affect any previously undisturbed below ground structural features of the bridge. The present proposal is to sink the duct within the tarmac surface and cover the new duct with a concrete protection. If any portion of this concrete cover was above the surface of the road it could be deemed to affect the architectural aesthetic of the bridge adversely. The recommendation of this assessment is that the new ducting should be located on the later eastern side of the bridge, following the route of the existing ducting and that this work be the subject of archaeological monitoring to establish and record if the earlier work has impinged on the bridge structure.



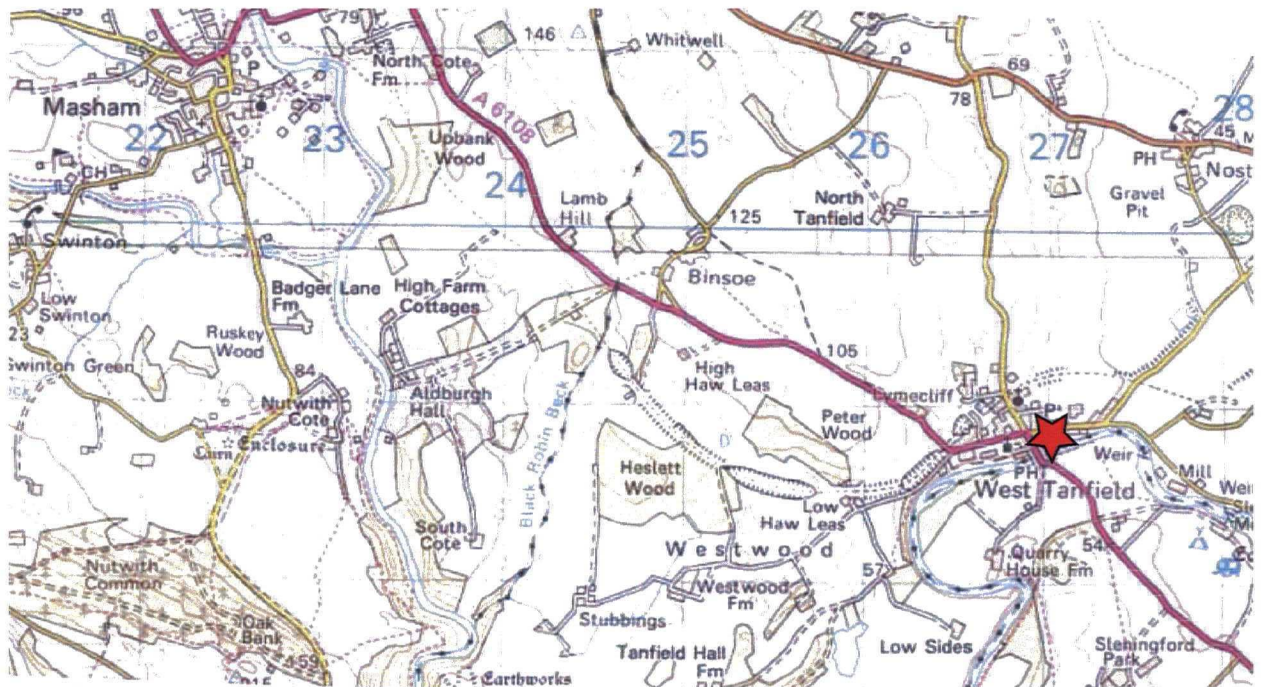
Plate 1, The east, downstream side of Tanfield Bridge, from the south bank of the River Ure

1.0 INTRODUCTION

In December 2003 to January 2004 the York Archaeological Trust undertook an archaeological desk top assessment of the bridge over the River Ure at West Tanfield (National Grid Reference SE 27007870). This work was carried out on behalf of British Telecommunications plc for the purpose of meeting a condition set by English Heritage in relation to work involved by taking a proposed route over the bridge for telecommunication ductwork between North Stainley, south of the river and West Tanfield on the north bank of the river. The scope of the proposed work is for a plastic duct 100mm in diameter, containing a fibre optic cable, to be laid crossing Tanfield Bridge, placed within the tarmac road surface and covered with a concrete protection (see method statement, Appendix 1).

2.0 METHODOLOGY

Details of the proposed work were provided by British Telecommunications. The Sites and Monuments Record at North Yorkshire County Council Heritage Unit was consulted. Historical and archaeological sources at the North Yorkshire Public record office Northallerton and York Reference Library were searched for information relating to the bridge. A walk-over of the site was also carried out and photographs were taken.



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Fig 1, Location of site

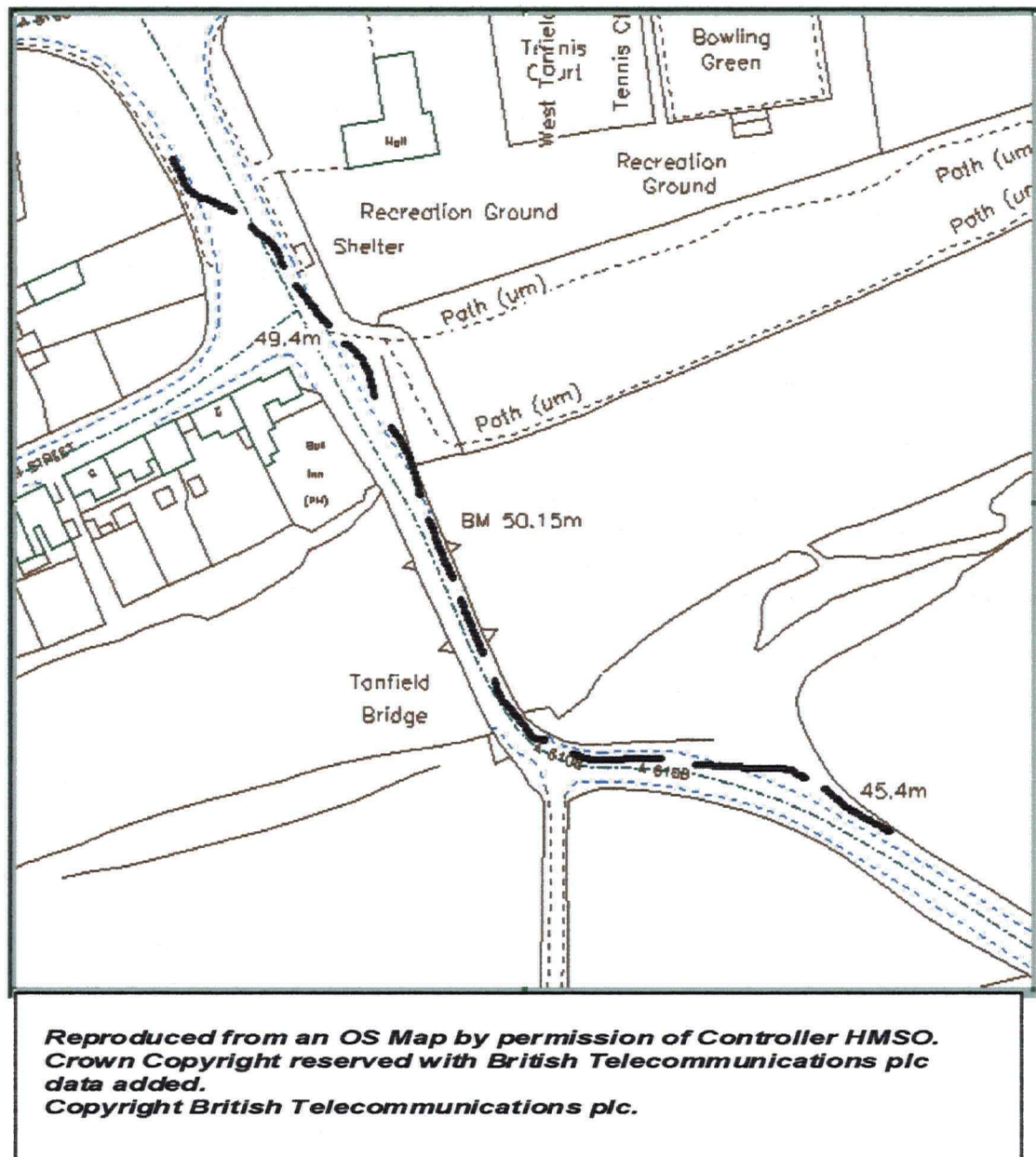


Fig 2, Location of proposed new ductwork across Tanfield Bridge

3.0 HISTORICAL AND ARCHAEOLOGICAL BACKGROUND

The village of West Tanfield is located c.3.5 miles to the south-east of Masham and c.5 miles north-west of Ripon, North Yorkshire. The village lies on the north bank of the River Ure and Tanfield bridge carries the A6108 across the river. Approximately 250m upstream of the bridge the former gatehouse to Tanfield castle, known as the Marmion Tower (Scheduled Monument no. 13274), has significant surviving upstanding medieval remains. The precise location and extents of the demolished Tanfield castle, the fortified manor house of the Marmion family is not known, but there is good potential for some of these remains to survive below ground in the vicinity of the bridge.

Tanfield Castle was located at a river crossing point. A ford was located close to the present bridge (VCH 1914, 384), and at low water it is possible to see remains of this in the river bed. The site was visited when the water was very high and opaque so this was not verified. Although there does not appear to be any surviving recorded evidence of a bridge across the river in the medieval period, and there seems to have been no bridge in 16th century since John Leland crossed the river at West Tanfield by ferry (VCH 1914, 384), nevertheless there could have been an bridge earlier than the present one on the site.

There is documentary evidence from the North Riding Quarter Sessions that in October 1609 a sum of £30 was allowed for the 'erecting of a new stone bridge at West Tanfield' (Jervoise 1931, 79). A bridge raised on three arches is described in 1725 and is reported to be in some decay in 1733 and it was rebuilt in 1737 after further damage caused by flooding (VCH 1914, 384). The money allocated for this re-build was recorded by the North Riding Quarter Sessions in April 1734 as £250 (Jervoise 1931, 79). The current ashlar bridge, possessing three segmental arches with voussoirs and hoodmoulds to throw off the rain, dates from this rebuild, but has been the subject of some later alteration. Jervoise describes the bridge at West Tanfield as 'an 18th century bridge with three segmental arches, which has been widened downstream to give a width of nearly 20 feet' (1931, 79). The 'seam' where the added build of the widening joins with the earlier part of the bridge can be seen clearly beneath the arches (see Plate 1). One of the two very heavily weathered inscriptions on the western face of the bridge reads:

'The W
widened
by John Edw....
BERNARD HAR.....
Surveyor 18...2'

The date of either late 18th century or 1842 for the widening is proposed by Eric Branse-Instone in his report for the English Heritage Monument Protection Programme following an inspection of the bridge in 2002 (see Appendix 2).

There are differences between the tooling of the stone work on each side of the bridge reflecting the two stages of construction represented. On the western side the blocks are rougher but plain-faced where as on the eastern side the blocks have patterned tool work (see Plates 1 and 3). There are also differences in stonework between the parts of the bridge constructed on the north and the south bank reflecting the fact that when the bridge was constructed the River Ure formed

the boundary between the North and West Ridings of Yorkshire. On the south side of the river (the West Riding) the blocks in the parapets are horizontally tooled whereas on the north bank (the North Riding) the parapets are constructed from plain-faced blocks. The boundary at the centre of the bridge is marked by an inscription on the inner face of each side of the bridge. The stone on the upstream side reads Division of the W. and N. Riding and the stone on the downstream side reads Division of the N. and W. Riding (see Plates 4 and 5).

On the south bank, west side of the bridge, a narrow set of steps leads to the road from the base of the bridge (see Plate 6). These may have been part of the original design, or added later.

Eric Branse-Instone's report for the English Heritage Monument Protection Programme following an inspection of the bridge in 2002 (see Appendix 2) states that it is not known if the bridge was strengthened by saddling in the 20th century, but that in 1994 the bases of the piers were encased in concrete to protect them from scouring by the river. He surmises that the internal structure of the original bridge with its 19th century widening survives.

There are a number of 20th century alterations. At some stage a drainage pipe to remove run-off has been inserted. The outflow appears from a pipe in the bridge on the north bank, downstream side (see Plate 2). In recent years four ducts carrying communication services for a company other than BT have been installed and have been buried to a presumed depth of 600mm in the road crossing the bridge (Ratcliffe *pers comm.*). This ducting is thought to have been placed along the eastern side of the bridge and the route of the proposed BT ducting is also proposed for the eastern side of the bridge (see Fig. 1). There are a number of road signs which have been erected on the southern side of the bridge, all of which have been placed in trenches with concrete around their bases. There is also a manhole inspection cover on the south bank side of the bridge. The inner faces of the bridge show evidence of repeated scrapes from vehicles driving too close to the stone work as they cross the bridge. There is a portion of masonry on the south side of the bridge lying on the ground which has evidently been knocked off, presumably by a close encounter with a vehicle.



Plate 2, The east side of Tanfield Bridge, from the north bank of the River Ure, showing the drain carrying run-off water

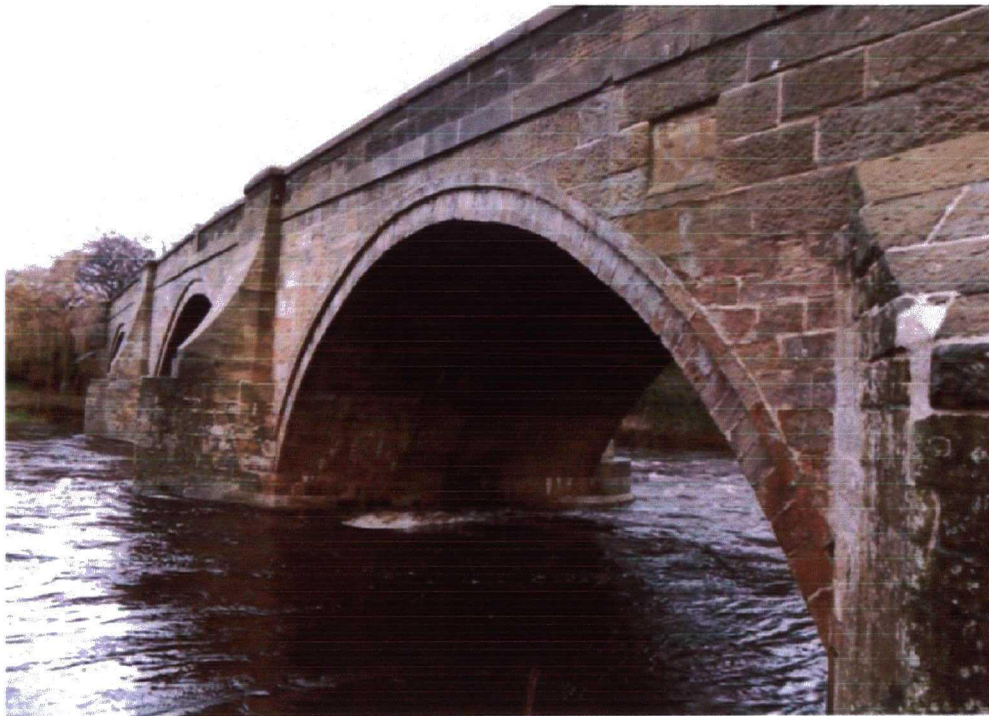


Plate 3, The west, upstream side of Tanfield Bridge from the south bank of the River Ure



Plate 4, The inner, west side of Tanfield Bridge from showing the division between the North and West Ridings



Plate 5, The inner, east side of Tanfield Bridge from showing the division between the North and West Ridings



Plate 6, The west side of Tanfield Bridge, south bank showing the steps which lead up to the roadway

4.0 STATUTORY PROTECTION

In 1979 Tanfield Bridge was designated as a Scheduled Historic Monument, and was numbered as North Yorkshire Monument Number 64. It retains that number and also has North Yorkshire Sites and Monument Number NYM21550. The scheduling of a monument means that permission from the Secretary of State – ‘scheduled monument consent’ - is required for works to that monument. The requirement for scheduled monument consent is a specific requirement of the Ancient Monument and Archaeological Areas Act 1979. The bridge is currently also protected as a Grade II Listed Structure.

The Department of Culture Media and Sport and English Heritage are currently engaged in a joint review of all archaeological sites in England (the Monuments Protection Programme), in order to identify which of some 600,000 sites are of outstanding national importance and worthy of protection. In 2002 Tanfield Bridge at West Tanfield was inspected under this programme and a report was compiled by Eric Branse-Instone (see Appendix 2). The recommendation of this report was that the bridge remains of archaeological importance, but that it should be de-scheduled following an upgrading to Grade II* listed status, following the national policy on bridges. This recommendation is currently held up because of a Review of Designation, which is being undertaken by English Heritage with a view to bringing out a White Paper by the end of 2004 to update the legislation relating to Listing and Scheduling of buildings and monuments

under review (Keith Emerick and Eric Branse-Instone *pers comm*). Consequently any changes to the status of Tanfield Bridge will not be made in the immediate future.

5.0 SUMMARY AND CONCLUSIONS

It is likely that there is a good potential for medieval remains associated with the fortified manor house of Tanfield to survive below ground in the vicinity of the bridge. There is also a possibility that remains of earlier river crossings (ford or earlier bridges) may also survive below ground. The proposed work on the bridge itself would leave these potential medieval remains unaffected.

The bridge itself is a good well-built example of an 18th century bridge with three segmental arches. Modification has occurred to the bridge in the 19th and 20th century, but it is thought to have avoided structural strengthening in the 20th century and is thus of sufficient merit to have been recommended for Grade II * Listed Building status (Branse-Instone 2002). The stones within the bridge marking the boundary division between the North and West Ridings of Yorkshire add to the archaeological significance of the monument. The differences in design between stone tooling used on the south bank and north bank reflecting either different builds by the different Ridings, or denoting another way of clearly marking the boundary between the Ridings, are also of interest.

Recent unmonitored work of a similar nature to the proposed insertion of ducting could have disturbed the below ground structure along the eastern edge of the bridge. The proposed new work is unlikely to affect any previously undisturbed below ground structural features of the bridge. The proposal is to sink the ducting within the tarmac surface and cover the new duct with a concrete protection. If any portion of this concrete cover was above the surface of the road it could be deemed to affect the architectural aesthetic of the bridge adversely. It might be more prudent for new work to follow the route of the existing ducting. The new work should certainly be located on the eastern side of the bridge since this is the side which was the subject of 19th century widening and would leave the earlier, western side untouched. The new work should be the subject of archaeological monitoring since this may enable establishment of whether the earlier ducting work has impinged on the bridge structure. If this is the case it should be examined and recorded.

It should be noted that the English Heritage Monument Protection Programme has recently examined Tanfield Bridge and recommended that the bridge be raised to Grade II* Listed status but that it be de-scheduled in line with the national policy on bridges but that this recommendation has been frozen because of a review of the legislation concerned with the designation of buildings and monuments.

6.0 LIST OF SOURCES

Written Sources

Branse-Instone, E. 2002. *Report on Tanfield Bridge for the English Heritage Monument Protection Programme*

Bulmer, J., 1890. *History and Directory of North Yorkshire*

Jervoise, E., 1931. *Ancient Bridges of the North of England*

VCH, Page, W. (ed.), 1914. *Victoria County History A History of Yorkshire North Riding 1*

Pevsner, N., 1966. *The Buildings of England, Yorkshire, the North Riding*

Walbran, J.R., revised by Canon Raine and William Fowler Stephenson, 1874. *A Guide to Ripon, Fountains Abbey, Harrogate and several places of interest in their vicinity*

North Yorkshire Sites and Monuments Record at the County Council Heritage Unit

Personal Communications were received from:

Keith Emerick, English Heritage

Eric Branse-Instone, English Heritage Monument Protection Programme

Graham Ratcliffe, Planner and engineer with British Telecommunications

7.0 LIST OF CONTRIBUTORS

Report text and photographs Rhona Finlayson

Appendix 1

Method statement from Morrison Utility Services, contractors for British Telecommunications

BT CIVILS METHOD STATEMENT

Note: This document **must be read in conjunction with the Project Specific and any applicable Generic Method Statements.*

Method Statement Title: Lay duct over Tanfield Bridge, West Tanfield.

Reference: 260603_draft
Issue No. 01

Date and Time: TO BE AGREED

Location: Tanfield Bridge, West Tanfield A6108 near Ripon North Yorkshire.

Grid Reference: SE 268 786

Scope of Work: Lay 100mm plastic duct in bridge deck.

Methodology:

1. Issue an Opening Notice and Notice for the use of temporary two-way traffic lights to the Street Authority.
2. Signing and Guarding will be to the current code of practice. The approach to West Tanfield from Ripon is a 60-mph road, so signs of appropriate size with distance plates will be required.
3. Operatives will wear High Visibility clothing for high-speed roads, Safety Footwear and Safety Helmets at all times on this site.
4. Signing and guarding will be to the current Code of Practice.
5. Safe Dig Plans will form part of the job pack in accordance with HS (G) -47 and Morrison Utility Services Health and Safety Policy.
6. The area of excavation will be CAT scanned and any services detected will be marked on the surface with either Road Crayon or biodegradable paint.
7. The surface will be cut using either a Sthil saw or a floor saw and dust suppression techniques will be used.
8. The surface will then be broken out using hand held power tools.
9. Compressed air tools will have whip check arrestors fitted to all connections on the air line.
10. Operatives will practice job rotation at a maximum interval of thirty minutes when using the jack hammer to reduce the risk of Hand Arm Vibration Syndrome
11. Pilot holes will be hand dug to confirm the presence of buried services, the proposed line of the duct route and the depth of the bridge deck.
12. Excavation must stop when any waterproof membrane is exposed. If the membrane becomes damaged during excavation, then work will stop and the bridge engineer informed. Any repairs will be carried out to his instruction and satisfaction. Work will only recommence when authorised to do so by the bridge engineer.
13. The duct is unlikely to be laid to the standard depth of 600mm required by BT so the duct will have concrete to a minimum grade of C20 laid over it as protection.
14. The reinstatement will be to match the existing including any road markings.

Method Statements: *Tick Appropriate Boxes*

<input type="checkbox"/>	CMS001- Maintenance Excavation	<input checked="" type="checkbox"/>	CMS011- General Excavations
<input type="checkbox"/>	CMS002- Blockages	<input checked="" type="checkbox"/>	CMS012- Duct Laying
<input type="checkbox"/>	CMS003- Box in 2 Casts	<input checked="" type="checkbox"/>	CMS013- Reinstatement
<input type="checkbox"/>	CMS004- Box in 1 Casts	<input type="checkbox"/>	CMS014- Slewing of Duct
<input type="checkbox"/>	CMS005- Frames & Covers	<input type="checkbox"/>	CMS015- Rod & Rope Duct
<input type="checkbox"/>	CMS007- Cabinet Installation	<input type="checkbox"/>	CMS016- Asbestos Removal
<input checked="" type="checkbox"/>	CMS008- Mix Site Concrete	<input type="checkbox"/>	CMS017- Notifying Positive Gas Tests
<input type="checkbox"/>	CMS009- Man Hole Construction	<input type="checkbox"/>	CMS019- Core Drilling into Structures

Risk Assessments: *Tick Appropriate Boxes*

<input checked="" type="checkbox"/>	CRA002- Working on Highways	<input type="checkbox"/>	CRA023- Hot Applied Pitch
<input checked="" type="checkbox"/>	CRA003- Handling Towable Plant	<input checked="" type="checkbox"/>	CRA024- Abrasive Wheels
<input checked="" type="checkbox"/>	CRA004- Loading/Unloading of Vehicles	<input type="checkbox"/>	CRA025- Slab/Kerb Laying
<input checked="" type="checkbox"/>	CRA005- Saw Cutting	<input type="checkbox"/>	CRA026- Gas Cylinders, Storage & Transport
<input checked="" type="checkbox"/>	CRA006- Road Breakers	<input type="checkbox"/>	CRA027- Sites Office
<input checked="" type="checkbox"/>	CRA007- Hand Excavations	<input type="checkbox"/>	CRA028- Plant & Equipment

<input type="checkbox"/>	CRA008- Using a Mechanical Excavator	<input type="checkbox"/>	CRA029- Grab Tipper Lorries
<input type="checkbox"/>	CRA010- Soil Conditions	<input type="checkbox"/>	CRA031- Confined Space
<input checked="" type="checkbox"/>	CRA011- Working in Excavations	<input type="checkbox"/>	CRA032- Manholes
<input checked="" type="checkbox"/>	CRA012- Back fill & Reinstatement Material	<input checked="" type="checkbox"/>	CRA034- Compressed Air Tools
<input checked="" type="checkbox"/>	CRA013- Site Husbandry	<input type="checkbox"/>	CRA035- Demolition of Chambers
<input type="checkbox"/>	CRA014- Delivery of Pipes & Fittings	<input type="checkbox"/>	CRA036- Asbestos Duct and Boxes
<input type="checkbox"/>	CRA017- Duct Leads into Buildings	<input type="checkbox"/>	CRA037- Core Drilling
<input type="checkbox"/>	CRA018- Working with Steel Duct	<input type="checkbox"/>	CRA038- Fitting/Renewal, Frames & Covers

Copies of Method Statements and Risk Assessments will be available on site in the Gang Project Manual

All work in the vicinity of trees to be carried out in accordance with NJUG 10 document. A copy of this document will available on site in the Gang Project Manual.

Responsibilities and Contact Details:

Graham Ratcliffe	BT Planner	0114 277 6589
Raj Kumar,	Morrison Utility Services Contract Manager	07775 703421
Peter Davies,	Morrison Utility Services Contract Quality Manager.	07775 820084
John Leaf	Morrison Utility Services Project Manager.	07802 197112
Phil Midgley	Site Agent	07974 173957

Plant and Materials:

Competence of Employees:
Operatives will hold a current NRASWA ticket and an ID card showing specific skill levels

EQUIPMENT TO BE WITHIN CALIBRATION: SPECIFY THE EQUIPMENT WHICH SHOULD BE CALIBRATED
CAT,
Gas Detectors for Inflammable and Explosive gases and Oxygen Levels.

PERMITS TO WORK
As advised by site.
Site Specific Safety Induction Required Yes/No?

PPE & SAFETY EQUIPMENT
As per Requirements of Generic Risk Assessments, but will include High Visibility Vests, Safety Footwear, Hard Hats, Eye Shields, Ear Defenders, Dust Masks and Gloves

Access and Egress Points:

Emergency Procedures and Contact Details:
The nearest Hospital with Accident and Emergency facilities is:

Telephone:

Welfare Details:
Operatives will have hand washing facilities and a list of local toilet facilities with them.

We have been briefed in the requirements of this Method Statement and fully understand those requirements.

[Failure to comply with the requirements of this Method Statement is a Criminal Offence under Section 7 of the Health and Safety at Work Act 1974 and the Construction (Design and Management) Regulations]

Appendix 2

Eric Branse-Instone report for the English Heritage Monument Protection Programme following an inspection of the bridge in 2002

Tanfield Bridge, West Tanfield parish

SE 27007870

Still of archaeological importance

Monument Notification Description

The monument includes a bridge of three arches across the River Ure on the south side of the village of West Tanfield. The bridge carries the A6108 main road between Ripon on Leyburn and is known to the County Council as Bridge number 127, Tanfield. The bridge is protected as a Grade II Listed Structure.

West Tanfield was a medieval crossing point for the River Ure by means of a ferry and was noted by John Leland in the mid-16th century. In October 1609 a payment of £30 towards the building of a new stone bridge was recorded by the North Riding Quarter Sessions. The earliest part of the present bridge dates to 1734 and according to the Quarter Sessions cost £250 to rebuild. The bridge was widened upstream in the late 18th century, or possibly as late as 1842, effectively doubling its width to give a distance between parapets of about 7m. The bridge originally crossed the boundary between the North and West Ridings and the parapets are of slightly different designs either side of the centre of the bridge as a result. It is not known if the bridge has been strengthened in the 20th century, however in 1994 the bases of the piers were surrounded by concrete aprons to guard against river scour.

Built in ashlar, the bridge has three segmental arches with voussoirs and hoodmoulds. The triangular cutwaters are not carried up to form pedestrian refuges on the carriageway, but there are early plain pilasters in the parapet walls. The parapets have a band at their base and are topped with flat copings. The parapets on the West Riding side have horizontal tooled blocks as opposed to the fine faced blocks on the North Riding side. The eastern, widened half of the bridge is similar to the earlier half except that it is finished with rusticated stonework. On the west side of the bridge at the southern end there are two heavily weathered inscriptions which are nearly illegible. One of these reads :

The W (est Tanfield Bridge was)
widended and.....
By John Edw.....
BERNARD HAR.....
Surveyor 18 (4?) 2

Monument Assessment of Importance

Tanfield Bridge is a good example of a 18th century bridge widened within a century of its construction. It is believed to have escaped strengthening in the 20th century and so will retain its original internal structure. The different treatments of the parapets by the two Ridings adds to its interest.

Reason for De-scheduling

Tanfield Bridge, scheduled in *19XX, is maintained as part of the national road network carrying the A6108 main road. Given this use, it is considered that protection through Listing is more appropriate than through continued scheduled status.

It is thus recommended that Tanfield Bridge is de-scheduled following an upgrading of its listed status to Grade II *. This approach follows national policy on bridges.

Inspection Visit on 24/04/2002
By Eric Branse-Instone

MPPA



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