

Tilehurst Road Overbridge (BKE 3709)

Addition of OLE Earthwire

*Design, Access & Heritage
Statement*

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1 Introduction

- 1.1 This Design, Access and Heritage Statement has been prepared by Network Rail in support of an application for Listed Building Consent for the addition of OLE earthwire attachments to Tilehurst Road Overbridge which is a grade II listed structure.
- 1.2 This statement provides Network Rails considerations and policy responses with regard to matters of design, access and heritage.
- 1.3 In terms of planning legislation Network Rail is able to make use of their permitted development rights under Class A, Part 18 of the Town and Country (Planning General Permitted Development) Order 2015 as the construction of this bridge was included in the Act of Parliament that authorised this section of the Great Western Railway. The works submitted for as part of this application is considered as 'plant' (with regard to the GPDO) and is therefore permitted development.

2 Background Information

Site Description and Surrounding Area

- 2.1 Tilehurst Road Overbridge is on the Berkshire Line (BKE) at location 37m 09ch and supports a public highway that crosses the railway line. The bridge is a tall triple-arch overbridge with semi-elliptical spans, set in a cutting, erected c1845-47. The central arch is slightly taller and wider than the side arches. Originally constructed from handmade red bricks with some red engineering brick patching and replacements. The carriageway is 24 ft (7.3 m.) wide between parapets. A distinguishing feature is its tall tapering piers, each originally pierced by two tapered transverse arches, now infilled so that they read as blind arches. Abutments/wing walls are gently curved, the north-west abutment has a shallow engineering brick buttress of c. 1896. Each face of the bridge displays stepped string courses.
- 2.2 The parapets were raised in the twentieth century by four courses of engineering brick above the original stone coping (left in situ), with pitched tile coping topped by small iron anti-climbing spikes. The western (Up) ends of both parapet recently rebuilt in engineering brick, but apparently reusing the original coping in situ, with the north (low mileage) parapet stepping up towards a rectangular brick pier which forms part of the approach to the neighbouring modern steel footbridge.
- 2.3 The bridge is not visible in the wider landscape due to topography as it is located in a cutting. From the north it is also screened by an adjacent footbridge.
- 2.4 In general the bridge is a good example of a typical Brunel design adapted to the circumstance of the site and has an imposing presence due to the height of the structure above rail level. The bridge is of medium historic and architectural interest but no archaeological. However, the adjoining steel footbridge is unsympathetic and detracts from the significance of this 1840s road bridge.

Need for proposed alterations

- 2.5 The Great Western mainline from London to Bristol and Cardiff/Swansea is to be electrified. The lines from Didcot to Oxford and Reading to Newbury will also be electrified in order to provide continuity of services. Electrification is the favoured method of propulsion for new railway projects because electric trains are cleaner, cheaper, quieter, faster to accelerate and lighter. The electrification programme will result in a significant reduction in carbon emissions.

and all in all will be a far more sustainable method of propulsion than the current diesel trains. Further information relating to environmental factors surrounding this project are contained in the Environmental Statement for the Reading Borough Council area, a copy of which has already been sent to the council electronically.

- 2.6 The earthwire is one of the wires forming part of the overhead line equipment required to electrify the railway line. In order to safely disperse any stray currents, induced by the passing of electric trains, all external metal work will require bonding to either the track or earth wire. The bonding will take the form of a conductive strip approximately 20mm wide similar to a lightning conductor.
- 2.7 As certain wires need to keep a certain distance away from others, the earthwire will need to be installed away from the electrified lines, as per other structures.
- 2.8 The electrification scheme is of national significance and will benefit the local area with improved rail services and reduced journey times.

Pre-application Consultation

- 2.9 The issue of how parapets were to be raised and overhead line equipment installed to listed bridges was the subject of an initial pre-application submission made in 14/08/2014. This pre-application enquiry followed a workshop run by Network Rail in conjunction with their Heritage Consultants, Alan Baxter Associates, where a detailed justification for the alterations and additions required was presented and possible design solutions for all listed bridges discussed.

Planning Policy Context

National Planning Policy - NPPF

- 2.10 The NPPF identifies a set of twelve core planning principles to underpin both plan-making and decision-making, with the overall aim of encouraging sustainable development. The need to secure good quality design, conservation of heritage assets in a manner appropriate to their significance, and supporting the transition to a low carbon future are the three principles most relevant to this application.

Section 7 Requiring good design

- Para 56 states that the Government attaches great importance to the design of the built environment. Good design is a key aspect of sustainable development, is indivisible from good planning, and should contribute positively to making better places for people.
- Para 60 states that planning policies and decisions should not attempt to impose architectural styles or particular tastes and they should not stifle innovation, originality or initiative through unsubstantiated requirements to conform to certain development forms or styles. It is, however, proper to seek to promote or reinforce local distinctiveness.

Section 12 Conserving and enhancing the historic environment

- Para 128 requires applicants to provide a description of the significance of the heritage asset affected by the proposed development and its setting that is proportionate to its importance
- Para 129 requires local planning authorities to take account of that significance when assessing an application
- Para 131 emphasises the desirability of sustaining and enhancing the significance of heritage assets and of new developments making a positive contribution to local character and distinctiveness.

- Para 132 states that great weight should be given to the conservation of heritage assets and explains that any harm or loss to a heritage asset should require clear and convincing justification. Substantial harm to or loss of a grade II listed building or registered park and garden should be exceptional. Substantial harm to or loss of designated heritage assets of the highest significance, including grade I and II* listed buildings and World Heritage Sites, should be wholly exceptional.
- Para 134 sets out that where a development would lead to less than substantial harm, local planning authorities should weigh this harm against the public benefits of the proposal. The electrification of the GWML will play a part in helping to promote sustainable transport; as such policies from Section 4, Promoting sustainable transport, are relevant.

Planning (Listed Building and Conservation Areas) Act 1990

- 2.11 Section 7 states that listed building consent is required for any works of alteration or extension which would affect its character as a building of special architectural or historic interest.
- 2.12 Section 16(2) requires the local authority to have 'special regard to the desirability of preserving the building or its setting or any features of special architectural or historic interest which it possesses'.

Planning Practice Guidance (Department of Communities and Local Government, 2014)

- 2.13 The aim of the Planning Practice Guidance (PPG) is to support implementation of the policies set out in the NPPF. The section Conserving and enhancing the historic environment was last updated in April 2014. The PPG reiterates that the appropriate conservation of heritage assets forms one of the core principles underpinning the planning system. In reference to development proposals, it is the degree of harm to the asset's significance rather than simply the scale of the development that should be assessed. It explains that significance derives not only from a heritage asset's physical presence but also from its setting, which is defined as 'the surroundings in which an asset is experienced [which] may therefore be more extensive than its curtilage. All heritage assets have a setting irrespective of the form in which they survive and whether they are designated or not.'
- 2.14 The PPG highlights that the public benefits that may follow a development could be anything that delivers economic, social or environmental progress as described in the National Planning Policy Framework (Para 7). It adds that benefits 'do not always have to be visible or accessible to the public in order to be genuine public benefits.'
- 2.15 Historic Environment Good Practice Advice in Planning Note 2 - Managing Significance in Decision-taking in the Historic Environment (Historic England, 2015)
- 2.16 This advice note supports the implementation of policy in the NPPF. It emphasises that the information required in support of applications for listed building consent should be no more than is necessary to reach an informed decision and proportionate to the significance of the heritage assets affected and the impact on that significance. It explains the importance of understanding the nature, extent and level of significance as part of the application process for listed building consent.

Historic Environment Good Practice Advice in Planning Note 3 - The Setting of Heritage Assets (Historic England, 2015)

- 2.17 This advice note supports the implementation of policy in the NPPF. It is largely derived from the earlier guidance on setting issued by English Heritage in 2011. It contains advice on the extent of setting, its relationship to views and how it contributes to significance. It also sets out a staged approach to decision-taking.

Local Planning Policy

- 2.18 The Council's Core Strategy sets out the overall planning strategy and broad principles for development in Reading and will be one of the main considerations in deciding planning applications in the Borough. The Core Strategy was adopted at Council on 29 January 2008.
- 2.19 Policy SD1: Presumption in Favour of Sustainable Development notes that 'a positive approach to considering development proposals will be taken that reflects the presumption in favour of sustainable development contained in the National Planning Policy Framework.'
- 2.20 Core Strategy Policy CS7 (Design and the Public Realm) comments on the design of proposals requiring all development to be of high design quality so as to maintain and enhance the character and appearance of the area of Reading in which it is located. The Policy contains a number of design criteria including the following:
- Respond positively to their local context and create or reinforce local character and distinctiveness, including protecting and enhancing the historic environment of the Borough and providing value to the public realm.
- 2.21 As detailed above it is considered that the design and proposed use of materials is appropriate for a railway setting and therefore compliant with design standards set out in Policy CS7.
- 2.22 Section 9 deals with the Built and Natural Environment. Paragraph 9.1.7 notes that the 'focus is on conservation and where appropriate enhancement, recognising that some new development may make a positive contribution to the character and local distinctiveness of a part of the historic environment.' Paragraph 9.1.10 further notes:
- 'Heritage assets are a non-renewable resource. Harm to or loss of an asset's significance including the complete loss, demolition or destruction, causes a loss of value to society and a loss of public benefit. There is a presumption in favour of conservation of all heritage assets. Any harm to or loss of an asset needs clear and convincing justification as set out in national planning policy'.*
- 2.23 Transport policy is also covered within Reading Borough Council's Core Strategy. It is considered that the works outlined in this application are in accordance with Policy CS21 (Major Transport Projects) as they are an essential part of the electrification of the programme. The access benefits of this programme are substantial as electrification will improve access to the surrounding area from other towns and regions on the rail network and provide a strategic enhancement of the existing infrastructure. As detailed above electrification will also introduce trains which are less environmentally damaging. These benefits are also compliant with the various transport policies set out in the Reading Local Transport Plan 2011-2026.

Reading's Culture and Heritage Strategy 2015-2030

- 2.24 The strategy was produced by Reading's Cultural Partnership. The proposed period covered by the strategy is 2015-2030 with a review planned in 2020. The strategy states that 'Culture and Heritage in Reading are integral to the town's success as a place that welcomes and

excites people to live, work and visit.' Heritage is a key part of Reading's Cultural Vision:

'Reading's heritage is an important and unique asset, albeit sometimes our best kept secret, playing a vital part in the local people's pride and sense of identity. Reading's vision for the town's heritage is applied within the framework of national and local policies for culture, heritage and planning. The local planning authority has a statutory responsibility to protect Reading's assets'.

3 Proposed Development

- 3.1 The proposed work to this bridge involves the addition of the necessary 'earthwire' to the bridge arch structure.
- 3.2 The work will require four attachments to be embedded into the structure, using two anchor rods for each attachment. The earthwire attachment will be attached to the underside of the bridge structure on the arch at both ends and each side of the structure (providing attachments for an earthwire for each rail line). The attachment will sit 4580mm, and 6200mm off rail level.
- 3.3 Details of the attachments are enclosed in Drawing Ref: 134307-APB-DRG-ECV-143250-B01.

4 Design and Access Statement

Design

- 4.1 The attachment is a stainless steel detail which will carry the earthwire for this structure, and forms an integral part to the electrification of the railway line.
- 4.2 Two anchor rods will hold the attachment in place once drilled 200mm into the structure.
- 4.3 The attachments will be located on the underside of the arch and pier of the structure. The bridge is not visible in the wider landscape due to topography as it is located in a cutting. From the north it is also screened by an adjacent footbridge. It is not considered that the attachment, being insignificant to the scale and mass of the existing structure will result in a material change to the architectural finish of the structure.

Access

- 4.4 The proposed works will be accessed for ongoing maintenance via the railway line, and by authorised personnel only.

5 Heritage Statement

- 5.1 The following designations are relevant to the consideration of the significance of Tilehurst Road Overbridge:
 - Tilehurst Road Overbridge - listed at Grade II in 2012. This recognises the special historic and architectural interest of the bridge.
- 5.2 Tilehurst Road Overbridge is in a sequence of other structures designed by Brunel on the

GWML: Bath Road Overbridge is approx. 390m up mileage from Tilehurst Road Overbridge; together with other structures on the line they hold group value in relation to the GWML as a whole, however, they are not statutorily listed as a group. As these two bridges are intervisible, they impact upon each other's setting.

- 5.3 Together with other surviving Brunel structures on the route they hold substantial group value.
- 5.4 Furthermore, within 100m of Tilehurst Road Overbridge there are two statutorily designated heritage assets. Nos. 35 and 52 Tilehurst Road are both Grade II listed residential buildings. Tilehurst Road Overbridge can be seen from No. 35 Tilehurst Road, but not clearly from No. 52. Furthermore, these two buildings do not have any direct historic relationship to the railway. Therefore, the proposed works will have negligible impact on the setting of these two heritage assets.

Significance of Southbury Lane Overbridge

- 5.5 Evidential values: Tilehurst Road Overbridge is a good example of a tall triple-arch skew overbridge dating from c.1845-47. It subsequently had its parapets raised and in places recently reconstructed. It has undergone some areas of re-patching and buttresses added to the wing walls. However, the form of the bridge is well preserved and retains its original form as designed by Brunel.
- 5.6 Historical values: The historical importance of Tilehurst Road Overbridge lies in its construction as part of the 'heroic age' Berks & Hants Railway and its association with I.K. Brunel. Its proportions are largely unaltered and the bridge is intervisible with Bath Road Overbridge. The Berks & Hants Railway was one of the early subsidiary lines built after the completion of the GWR mainline.
- 5.7 Aesthetic values: Tilehurst Road Overbridge retains the original Brunel three-span design with its taller central arch. The bridge has not been extended. Its original parapet and brick stone coping were raised by the addition of four brick courses and steeple coping. The coping was topped by decorative anti-climb spikes.
- 5.8 Communal values: The setting of the bridge is urban but is not visible in the wider landscape. A modern pedestrian footbridge is located adjacent to its low mileage face. However, its high mileage face is clearly visible from the neighbouring Bath Road Overbridge.

Summary of Significance

- 5.9 Taking into account all the values (evidential, historical, aesthetic, and communal), the significance of Bath Road Overbridge lies in it being:
 - a surviving structure from the Berks & Hants Railway built c.1845-47
 - retains its original Brunel design
 - intervisible with the neighbouring Bath Road Overbridge.

Heritage Impact Assessment

- 5.10 The installation of the earthwire will fulfill the safety requirements and enable the electrification of the railway line. Its design has been considered to minimise the impact and harm to the significance of the listed structure by providing a physically reversible option which leaves all existing fabric in-situ.
- 5.11 Nevertheless, the works will cause some harm to the significance of the structure. This

section of the Heritage Statement will demonstrate that this harm has been minimised, is less than substantial and is outweighed by the public benefits that the proposals deliver.

- 5.12 The bridge is not easily visible in long views from this location and the works to Tilehurst Road Bridge will have a negligible effect on the setting of this heritage asset.
- 5.13 The proposals for Tilehurst Road Overbridge are one component of the works required to electrify the GWML. Both Bath Road Overbridge and Tilehurst Road Overbridge are well-preserved examples of Brunel's design on the Reading to Newbury line. A common design approach is being taken with both bridges: to preserve the majority of the historic fabric in situ and add the necessary earthwire where necessary to achieve the necessary safety requirements on the bridges. The cumulative impact on significance will be minimised.
- 5.14 The proposed works to Tilehurst Road Overbridge will have little impact on setting. The bridge is located in a deep cutting and its topography, as well as the location of other structures, means that it is not visible in the wider landscape.
- 5.15 A historic building record of Tilehurst Road Overbridge has been undertaken prior to the commencement of works to the bridge. This was to Historic England's recording level 2. The record will be deposited in the Berkshire Historic Environment Record.
- 5.16 This proposal is necessary to enable the electrification of the line from Reading to Newbury. The electrification of the GWML is a project of strategic national importance and effect. The GWP will make a significant contribution to securing a low carbon future, a key objective of the NPPF.
- 5.17 The improved rail infrastructure that GWP will supply will deliver trains that are more efficient, cleaner, quieter, lighter and faster to accelerate. Consequently, the proposal delivers public benefits that are manifestly substantial.
- 5.18 The proposal will cause harm to the significance of Tilehurst Road Overbridge by altering its overall form and appearance. It will have little effect on the views between this bridge and the nearby Tilehurst Road Overbridge (BKE 3709). The structure will still be recognisable as a Brunel designed overbridge dating from the construction of the Berks & Hants Railway. The majority of the bridge's historic fabric will remain untouched.
- 5.19 The proposal respects the integrity of Brunel's design and takes account of its group value. Overall the proposed works amount to less than substantial harm to the significance of the heritage asset.
- 5.20 In such circumstances, the NPPF requires that harm be weighed against the public benefits of the proposal (para 134). In this case the safe operation of an improved and less environmentally damaging train service outweighs the harm to significance, which has been minimised by designing on the basis of an understanding of the heritage values of the structure.
- 5.21 Therefore the proposal is in accordance with national planning policy and the core planning principles of the NPPF, in particular those of sustainable development, high quality design, the transition to a low carbon future and sustaining the significance of heritage assets. It meets the requirements of local policies by sustaining the significance of Reading Borough Council's heritage assets.

6 Conclusion

- 6.1 Electrification is a project of national significance. This specific work is necessary to enable the electrification of the railway line through this area.
- 6.2 For the reasons set out in this statement, the design of the proposed alterations will not detract from the historic character of this structure or injure the amenities of the area. Consequently, this proposal accords with both national and local planning policies.

