



HIGH SPEED TWO

PHASE 2a INFORMATION PAPER

E7: FUTURE HIGHWAY MAINTENANCE RESPONSIBILITIES

This paper outlines the future maintenance responsibilities for new highways created, or existing highways altered, by the Proposed Scheme.

It will be of particular interest to those potentially affected by the Government's proposals for high speed rail.

This paper was prepared in relation to the promotion of the High Speed Rail (West Midlands-Crewe) Bill which is now enacted. It was finalised at Royal Assent and no further changes will be made.

If you have any queries about this paper or about how it might apply to you, please contact the HS2 Helpdesk in the first instance.

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E7: FUTURE HIGHWAY MAINTENANCE RESPONSIBILITIES

1. Introduction

- 1.1. High Speed Two (HS2) is the Government's proposal for a new, high speed north-south railway. The proposal is being taken forward in phases: Phase One will connect London with Birmingham and the West Midlands. Phase 2a will extend the route to Crewe. Phase 2b will extend the route to Manchester, Leeds and beyond. The construction and operation of Phase One of HS2 is authorised by the High Speed Rail (London – West Midlands) Act 2017.
- 1.2. HS2 Ltd is the non-departmental public body responsible for developing and promoting these proposals. The company works to a Development Agreement made with the Secretary of State for Transport.
- 1.3. In July 2017, the Government introduced a hybrid Bill¹ to Parliament to seek powers for the construction and operation of Phase 2a of HS2 (the Proposed Scheme). The Proposed Scheme is a railway starting at Fradley at its southern end. At the northern end it connects with the West Coast Main Line (WCML) south of Crewe to allow HS2 services to join the WCML and call at Crewe Station. North of this junction with the WCML, the Proposed Scheme continues to a tunnel portal south of Crewe.
- 1.4. The work to produce the Bill includes an Environmental Impact Assessment (EIA), the results of which are reported in an Environmental Statement (ES) submitted alongside the Bill. The Secretary of State has also published draft Environmental Minimum Requirements (EMRs)², which set out the environmental and sustainability commitments that will be observed in the construction of the Proposed Scheme.
- 1.5. The Secretary of State for Transport is the Promoter of the Bill through Parliament. The Promoter will also appoint a body responsible for delivering the Proposed Scheme under the powers granted by the Bill. This body is known as the 'nominated undertaker'. The nominated undertaker will be bound by the obligations contained in the Bill and the policies established in the EMRs. There may be more than one nominated undertaker.
- 1.6. These information papers have been produced to explain the commitments made in the Bill and the EMRs and how they will be applied to the design and construction of the Proposed Scheme. They also provide information about the Proposed Scheme itself, the powers contained in the Bill and how particular decisions about the Proposed Scheme have been reached.

¹ The High Speed Rail (West Midlands – Crewe) Bill, hereafter 'the Bill'.

² For more information on the EMRs, please see Information Paper E1: Control of Environmental Impacts.

2. Overview

- 2.1. This paper outlines the maintenance responsibilities for new highways created, or existing highways altered, by the Proposed Scheme.
- 2.2. Constructing the Proposed Scheme will require the nominated undertaker to deliver a wide range of highway works, including construction of new highways, and stopping up of, and alterations to, existing highways.
- 2.3. The arrangements for future maintenance of highway works constructed by the nominated undertaker are set out in Schedule 4 Part 3 of the Bill. This includes both roads and public rights of way, together with any associated structures such as bridges under or over the Proposed Scheme.
- 2.4. This paper expands on the summary provided in Information Paper E4, Highways and Traffic during Construction - Legislative Provisions. Both documents relate to the maintenance of permanent highway works authorised by the Bill. The information here is primarily intended as an aid to discussions between the nominated undertaker and each highway authority.

3. General

- 3.1. With regard to the construction of a new highway or alteration to an existing highway, Schedule 4 paragraph 16 of the Bill states:

"The new or altered highway must be maintained by and at the expense of the nominated undertaker for a period of 12 months from:

 - *the date of practical completion; or*
 - *if later, the date on which it is first open for public use*

and after the end of that period must be maintained by and at the expense of the highway authority."
- 3.2. This 12-month 'maintenance period' is a well-established principle; for example in Schedule 3 of both the Channel Tunnel Rail Link Act 1996 and the Crossrail Act 2008, and in Schedule 4 of the High Speed Rail (London – West Midlands) Act 2017. Parliament has previously accepted in these cases that such a provision strikes a reasonable balance between the nominated undertaker's powers to construct the Proposed Scheme and the highway authority's duties to maintain the public highways in its area.
- 3.3. Subject to the exceptions discussed in the following sections of this paper, this future maintenance responsibility for highway authorities applies to all new or altered highway assets. These include 'off-line' highway works not involving crossings of HS2 as well as those associated with roads passing under or over the railway. Typical examples of such highway assets include:
 - Carriageways;
 - Kerbs, footways and paved areas;

- Verges and other grassed or landscaped areas;
 - Embankments, cuttings and other earthworks;
 - Drainage (including any pumps that may be required);
 - Road restraint systems (vehicular and pedestrian);
 - Traffic signs, traffic signals and road markings;
 - Road lighting;
 - Communications networks and power supplies owned and/or operated by the highway authority (including any associated service ducts);
 - Bridges (other than those over or under the Proposed Scheme or where the responsibility lies with a third party e.g. Network Rail);
 - Culverts, retaining walls and other structures;
 - Fencing, walls, hedges and ditches (where not the responsibility of the adjacent landowner); and
 - Miscellaneous street furniture (except that which is the responsibility of a third party).
- 3.4. The future ownership of (and hence any residual maintenance liability for) lengths of highway which are permanently stopped-up is covered in Information Paper E4: Highways and Traffic during Construction. Where appropriate, an easement may be granted to provide rights of access and maintenance for the highway authority through a permanently stopped-up length of highway for assets such as existing drainage networks.

4. Overbridges

- 4.1. Schedule 4 paragraph 16(8) of the Bill states that the maintenance requirements above do not impose any obligation on the highway authority "in relation to the structure of any bridge carrying a highway over any railway of the nominated undertaker."
- 4.2. The structure of a bridge carrying a highway over the Proposed Scheme is considered to comprise the following elements:
- Deck (including waterproofing, bearings and integral expansion joints);
 - Piers (for bridges with multiple spans);
 - Abutments (including bearing shelf and back-of-wall drainage) and wingwalls;
 - Foundations; and
 - Parapets.

- 4.3. The nominated undertaker is responsible for maintenance of all elements of the structure of an overbridge, including the removal of graffiti from both faces of parapets and maintaining any of the nominated undertaker's own apparatus passing across an overbridge. This responsibility extends to any backfill forming an inherent part of the structural design for a bridge abutment or wingwall, but any other earthworks would become the responsibility of the highway authority in the normal way (see below).
- 4.4. Section 3 of this information paper explains that the highway authority will be responsible, after the 12 month maintenance period, for maintaining those elements not forming part of the structure. Typical examples of such elements on a road overbridge include:
- Carriageway surfacing and any other pavement layers above the waterproofing;
 - Full depth above waterproofing for all kerbing, footways and paved areas on the deck (including any supporting infill);
 - Drainage of the deck surface area between parapets (including any gullies, carrier drains and combined kerb / drainage systems);
 - Road markings; and
 - Any traffic signs, road lighting or other street furniture on the structure.
- 4.5. The same responsibilities apply to bridges carrying public rights of way over the Proposed Scheme where such elements are present in the design. For example, in the case of a single layer applied to act as both waterproofing and surfacing on a footbridge deck, this would be treated as waterproofing (i.e. part of the structure) for the purposes of paragraphs 4.2 and 4.3 above.
- 4.6. In the case of 'green bridges' where only part of the width between parapets is dedicated as public highway, the remaining width is the responsibility of the nominated undertaker. For further details on Green Bridges refer to Information Paper E2: Ecology.

5. Viaducts and underbridges

- 5.1. Schedule 4 of the Bill does not include specific mention of the structure of any bridge carrying the Proposed Scheme over a highway. However, it is accepted that the deck, piers, abutments and foundations of such structures shall be considered to be the responsibility of the nominated undertaker.
- 5.2. In the case of an integral box structure, the base of the box shall also be considered to be the responsibility of the nominated undertaker.
- 5.3. The nominated undertaker will also be responsible for the removal of graffiti from the decks, piers and abutments of a viaduct or underbridge, and maintaining any of its own apparatus passing under a viaduct or through an underbridge.

- 5.4. Section 3 of this information paper explains that the highway authority will have maintenance responsibility for all highway assets within the agreed highway boundary after the 12 month maintenance period.
- 5.5. For single-span structures, the highway boundary shall be considered to be the inner face of each abutment (except where agreed in writing with the nominated undertaker).
- 5.6. For structures with multiple spans, the highway boundaries shall be considered to be either:
- a) the inner face of any highway boundary fencing passing through or under the structure; or, where no such fencing exists; or
 - b) the inner face of the abutment(s).
- 5.7. In addition to the typical examples of elements to be maintained by the highway authority given for a road overbridge in paragraph 4.4 above, other aspects it will typically be responsible for include:
- All pavement layers;
 - Any hard landscaping in the shadow of the structure;
 - All earthworks (including any capping layers or ground treatment) supporting the highway;
 - Any highway drainage passing through or under the structure; and
 - Any highway communications networks, power supplies and service ducts;
- 5.8. The same requirements apply to viaducts or bridges carrying the Proposed Scheme over a public right of way where such elements are present in the design.

6. Tunnels

- 6.1. Schedule 4 paragraph 16(8) of the Bill states that the general requirement given above does not impose any obligation on the highway authority for "the structure of any tunnel carrying a highway under" any railway of the nominated undertaker.
- 6.2. To the extent that they are applicable to highways in tunnels, the maintenance responsibilities are equivalent to those where highways pass under viaducts or through underbridges.

7. Winter maintenance

- 7.1. Schedule 4 paragraph 16(4) of the Bill states that "the highway authority must ensure, so far as is reasonably practicable, that safe passage along the new or

altered highway is not endangered by snow or ice" during the 12-month maintenance period, unless otherwise agreed with the nominated undertaker.

8. Maintenance agreements

- 8.1. Schedule 4 paragraph 16(3)(a) of the Bill provides for alternative maintenance arrangements to be agreed with the highway authority. Such alternative maintenance arrangements may be appropriate where highway authorities are best placed to undertake certain activities during the 12-month maintenance period. These might include:
 - Crash damage repair;
 - Small item maintenance, such as bulbs; and
 - Cyclical maintenance activities such as routine gully emptying, road sweeping and grass cutting.
- 8.2. Unless otherwise agreed, the nominated undertaker would remain responsible for carrying out the mud control measures required under Schedule 17.
- 8.3. Notwithstanding the above, the nominated undertaker would also remain responsible for the following on-highway activities during the 12-month maintenance period:
 - Correcting defects of workmanship and materials;
 - Completion of any works agreed as necessary following Stage 3 Road Safety Audits; and
 - Installation, maintenance and removal of any temporary traffic management measures required in connection with the above.
- 8.4. It is planned to adopt the common approach to maintenance agreements currently being developed on Phase One of HS2 in conjunction with the relevant highway authorities.
- 8.5. Where appropriate, the nominated undertaker will then enter into individual maintenance agreements with highway authorities to clarify future maintenance responsibilities for the new or altered highway assets in each area. This can include the demarcation of adjacent highway and railway assets (e.g. earthworks, drainage and non-bridge structures).

9. Road restraint systems

- 9.1. Road restraint systems on the approach to bridges are not part of the structure carrying a highway over or under the Proposed Scheme and would thus normally be wholly the responsibility of the highway authority.
- 9.2. However, as an exception, and only where essential to protect the railway from errant road vehicles, the nominated undertaker may seek agreement from the highway authority under Schedule 4 paragraph 16(3)(a) of the Bill to retain

maintenance responsibility for defined lengths of road restraint system on the immediate approaches to certain overbridges.

- 9.3. Similarly, the nominated undertaker may seek agreement under the same provision for road restraint systems in respect of certain other potentially 'higher errant vehicle risk' circumstances (e.g. where a road runs closely parallel to and above a section of railway).
- 9.4. Offering to enter into any such agreement is purely at the discretion of the nominated undertaker.
- 9.5. The nominated undertaker would not expect to consider retaining maintenance responsibility for road restraint systems on the immediate approaches to viaduct or underbridge piers and abutments, or on highway tunnel approaches, as these can be maintained by the highway authority in the normal way without implications for the operational railway.

10. Highway maintenance costs

- 10.1. Highway authorities receive funding for local highway maintenance costs from the Highways Maintenance Block Funding grant from the Department for Transport (DfT) and the Revenue Support Grant (RSG) from the Ministry of Housing, Communities and Local Government (MHCLG), along with local income sources. The DfT Highways Maintenance Block Funding grant is refreshed every few years in order to take into account any changes (e.g. road length) in highways that have become the responsibility of the highway authority to maintain.
- 10.2. Highway authorities have previously expressed concern that the Proposed Scheme will lead to an increase, in particular, in the number of highway-related structures that require maintenance. As such, they are concerned that the Proposed Scheme could represent a 'new burden' under the 2011 New Burdens Doctrine.
- 10.3. Where new or altered highways constructed as part of the Proposed Scheme become the responsibility of a local highway authority to maintain following the 12-month maintenance period, the DfT Highways Maintenance Block Funding grant amount that a highway authority receives will be amended (at the next data refresh point) to take into account any changes in the length of highways and number of highway structures. It is recognised that there may be a gap between when a highway becomes the responsibility of a highway authority, and when this grant is refreshed, leading to highway authorities having responsibility for the maintenance of new or altered highways without additional funding. In addition, these new or altered highways may require maintenance of new assets, such as pumping stations, the cost for maintenance of which may not be taken into account in existing funding streams. On the other hand, in many places the Proposed Scheme will replace existing older roads with new roads constructed to modern specifications that are likely to require little, if any, maintenance in their first few years of operation.

- 10.4. Any financial effects relating to the handover of new or altered highway assets to highway authorities will not be clear until the construction programme for the Proposed Scheme is confirmed following Royal Assent of the Bill. A full “new burdens” assessment will be undertaken prior to commencement of construction. In the event that this demonstrates that the Proposed Scheme is leading to a new burden on any highways authorities, these additional costs will be reimbursed.
- 10.5. In the meantime, a preliminary analysis into the expected cost of highway maintenance will be undertaken by HS2 Ltd to inform discussions with highway authorities.

11. Possible retention of temporary traffic management measures

- 11.1. It is possible that highway authorities may request (or agree to) the retention of certain temporary traffic management measures that are required to help mitigate the impacts of the additional HS2 large goods vehicle traffic during construction.
- 11.2. Such mitigation measures would normally be removed by HS2 following completion of the additional usage by HS2 large goods vehicles, but where it is agreed that the measures should be retained permanently, they shall be maintained by and at the expense of the highway authority.

12. Warranties and guarantees

- 12.1. The nominated undertaker will, at the request of the highway authority, use reasonable endeavours to negotiate a collateral warranty for the benefit of the highway authority from the date that it becomes responsible for the maintenance of the new or altered highway or, if it is possible to do so, will enforce any rights which it has under its contract for the benefit of the highway authority.

13. Latent defects

- 13.1. In the event that a latent defect manifests itself in any HS2 highway works after the 12-month maintenance period and within the period during which a claim can be made for a fault in design, materials or workmanship, the nominated undertaker will – at the request of the highway authority – use reasonable endeavours to secure an appropriate remedy in accordance with the terms of the relevant design or construction contract.

14. More information

- 14.1. More detail on the Bill and related documents can be found at: www.gov.uk/HS2