



Phase 2b Western Leg Information Paper

E3: Management of traffic during construction

This paper outlines the framework for the control and management of traffic associated with the construction of 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 (Crewe - Manchester) Bill. Content will be maintained and updated as considered appropriate during the passage of the Bill.

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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1 Introduction

- 1.1 High Speed Two (HS2) is the Government's scheme for a new, high speed north-south railway, which is being taken forward in a number of phases. Phase One will connect London with Birmingham and the West Midlands. Phase 2a will extend the route from the West Midlands to Crewe. The Phase 2b Western Leg will connect Crewe to Manchester. As set out in the Integrated Rail Plan, published in November 2021, HS2 East is proposed to deliver a new high speed line from the West Midlands to East Midlands Parkway.
- 1.2 HS2 Ltd is the non-departmental public body responsible for developing and promoting these proposals. The company works under the terms of a Development Agreement entered into with the Secretary of State for Transport.
- 1.3 The construction and operation of Phase One of HS2 is authorised by the High Speed Rail (London – West Midlands) Act 2017 and Phase 2a by the High Speed Rail (West Midlands – Crewe) Act 2021.
- 1.4 In January 2022, the Government introduced a hybrid Bill to Parliament (hereafter referred to as 'the Bill'), to seek powers for the construction and operation of the Phase 2b Western Leg (the Proposed Scheme), which is called the High Speed Rail (Crewe – Manchester) Bill. The Proposed Scheme comprises the Phase 2b Western Leg from Crewe to Manchester and several off-route works. It also facilitates the delivery of Northern Powerhouse Rail by providing the Crewe Northern Connection and junctions and other infrastructure to be used in future schemes.
- 1.5 The work to produce the Bill includes an Equalities Impact Assessment and 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), which set out the environmental and sustainability commitments that will be observed in the construction of the Proposed

Scheme. For more information on the EMRs please see Information Paper E1: Control of environmental impacts.

1.6 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'. There may be more than one nominated undertaker. However, any and all nominated undertakers will be bound by the obligations contained in the Bill, the policies established in the EMRs and any commitments provided in the information papers.

1.7 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.

2 Overview

2.1 This information paper outlines the framework for the assessment, control and management of matters that will affect the road network, such as construction traffic and temporary measures affecting traffic that will be necessary during construction of the Proposed Scheme. It also sets out the process by which affected residents, businesses and others will be informed of how construction activities could impact on the road network and existing traffic, as well as how construction traffic flows will be controlled and managed in their area.

2.2 For works in Scotland, the term 'highway' used in this document should be understood to mean 'road', 'footpath' or other route to which the public has lawful access as the context requires. Similarly, the term 'highway authority' should be understood to mean 'roads authority'.

3 Construction traffic impacts

- 3.1 The impact of construction traffic on local roads is likely to be a particular concern for residents who live or work near the line of route. HS2 Ltd is committed to ensuring that the adverse effects of such impacts are minimised, as far as reasonably practicable.
- 3.2 Construction traffic consists of the delivery of equipment and materials, and the movement of excavated materials. Along the whole line of route, the majority of construction traffic movements will be due to the movement of the quantities of excavated materials arising from tunnelling and earthworks. Consistent with the HS2 Environmental Policy of reducing waste and maximising the proportion of waste diverted from landfill, the project aims to reduce the amount of material excavated and reuse excavated material as far as reasonably practicable. For more information see Information Paper E17: Excavated material and waste management and Information Paper D12: Borrow pits. It is expected that the majority of material that will be excavated across the Proposed Scheme will be reused within the design of the Proposed Scheme, such as the earthworks or reinstatement of land used for borrow pits.
- 3.3 Where it is necessary to move excavated material and it is reasonably practicable to do so:
- excavated material will be moved along the construction corridor (land required for the construction of the railway) on site haul routes, once constructed, so as to reduce impacts on the road network;
 - as appropriate and where reasonably practicable, rail transport will be used for the movement of materials and waste in bulk; and
 - where removal from the site by road is necessary, excavated material will be transported by public highway along lorry routes approved in accordance with the Bill, using the Primary Road network and other A roads to reach trunk roads and motorways where reasonably practicable and minimising the use of local roads.
- 3.4 As well as the movement of construction materials, construction activities will require the movement of the workforce who will deliver the Proposed

Scheme. In order to minimise private car movements, contractors will be required to prepare appropriate workforce travel plans. These will encourage workers to use sustainable modes of transport or to otherwise reduce the number of cars and encourage contractors to consider how to link worksites with public transport, where reasonably practicable, to reduce the impact of workforce travel on local residents and businesses.

4 Assessment of environmental impacts on construction traffic

4.1 The ES identifies the environmental impacts of construction traffic. It forecasts the level of light goods vehicle (less than 3.5t) and heavy goods vehicle (over 3.5t) (lorry) construction traffic for each construction site, as well as construction worker car traffic. The number and frequency of lorry movements and the duration of busy periods have been forecast using estimated quantities of materials to be transported and the likely construction programme. Lorry movements for each construction site were assigned to assumed routes that provide the most suitable links from worksites to the main road network, in order to minimise the environmental effects as far as this is reasonably practicable. This assessment is on a reasonable worst-case basis and, therefore, represents a cautious assessment of the likely environmental effects.

4.2 The assessment of construction traffic focused on the following issues:

- any temporary increase in traffic on a route due to HS2 construction works that causes delays and congestion for road users or has a severance effect for non-motorised users (e.g. pedestrians and cyclists), making it harder for them to cross the road;
- changes in potential accident rate and safety, parking and loading, and public transport interchange resulting from HS2 construction works; and
- changes in noise levels and air quality as a result of additional vehicular traffic as set out in Information Paper E14: Air quality.

- 4.3 The assessment of construction traffic also looked at increased travel time or delays that could be caused by temporary closures of roads and public rights of way around construction sites.
- 4.4 Criteria were developed to identify significant impacts based on estimated increases in traffic levels resulting from HS2 construction works. These took account of current guidance and standards, as well as criteria developed for recent major railway projects, in particular HS2 Phase One, HS2 Phase 2a, the Channel Tunnel Rail Link (High Speed 1) and Crossrail. Further details of the criteria are set out in the Volume 5 Technical Appendix Scope and Methodology Report (CT-001-001).
- 4.5 Where proposed worksites would be near each other and operating at the same time, cumulative traffic impacts on local roads were assessed. Where appropriate, this assessment was extended to consider the possible cumulative impacts on the wider road network.
- 4.6 Estimated numbers of construction traffic and worker car movements to and from the worksites formed the basis for the assessment of community impacts and noise and air quality impacts arising from HS2 construction works. Predicted changes in road traffic noise and air quality are described in the ES Volume 2: Community Area reports for each of the eight community areas along the route. The reports also give information on worksite locations and proposed designated routes for construction traffic.

5 Control and management of construction traffic to mitigate impacts

- 5.1 The Bill includes powers for the control of construction traffic by qualifying planning authorities (see Information Paper B2: The main provisions of the planning regime and Information Paper E4: Highways and traffic during construction: Legislative provisions).
- 5.2 This means that the routes to be used by large goods vehicles (i.e. those over 7.5t) must be approved by qualifying planning authorities when the

number of large goods vehicles exceeds 24 one-way trips per day, to and from a site.

- 5.3 The consent of the relevant highway authority is also required for the provision of any new or altered worksite access to and from a highway, if this is not shown on the plans deposited with the Bill. The highway authority must be consulted before works affecting highways or traffic can be undertaken and consent must be sought before interfering with any property of the highway authority or, in some cases, for construction under the surface of a highway (see Information Paper E4: Highways and traffic during construction: Legislative provisions).
- 5.4 The Environmental Minimum Requirements including the Code of Construction Practice (CoCP), and the General Principles Document together with the various controls prescribed in the Bill, are intended to ensure that no new significant adverse effects arise during the construction of the scheme, or where they are forecast to arise, they are mitigated so that they are no longer significant. In particular, the draft CoCP requires the nominated undertaker to ensure that public access to premises be maintained, where reasonably practicable, and appropriate measures will be implemented to ensure the local community, economy and transport networks can continue to operate effectively. Where this is not reasonably practicable, alternative measures shall be identified to maintain continued public access, especially for pedestrians and cyclists, to routes in the vicinity of the construction sites. Information Paper D10: Maintaining access to residential and commercial property during construction gives further details.
- 5.5 The draft CoCP is included as an appendix to the ES. It will provide a consistent approach to the management of construction activities throughout the construction of the Proposed Scheme. It will evolve and will be subject to refinement and amendment as necessary, as the project design, assessment and Parliamentary processes develop. It will be finalised for the Proposed Scheme when the hybrid Bill is enacted. (For further information, see Information Paper D3: Code of construction practice.)

- 5.6 The CoCP will require the nominated undertaker to prepare a Route-wide traffic management plan (RTMP) in liaison with highway and traffic authorities and the emergency services. As appropriate, the plan will include:
- the means of managing and monitoring lorry flows;
 - the requirement for vehicle and driver safety;
 - requirements for preparing workforce travel plans;
 - the strategy for design and consultation for traffic management (including the signing strategy for emergency service access and lorry wayfinding); and
 - the requirements for protecting highways.
- 5.7 The RTMP will be consulted on with the highway authorities along the route of the Proposed Scheme (see Section 7 below).
- 5.8 The CoCP will require the nominated undertaker to ensure that local traffic management plans are prepared by Contractors in liaison with the relevant highway and traffic authorities and the emergency services. As appropriate, these will include:
- the contractors' construction traffic flow assumptions;
 - the local routes to be used by large goods vehicles (approved by the relevant planning authority where applicable), including any lorry holding areas required for construction of the Proposed Scheme; and
 - significant works affecting roads and public rights of way, including temporary and permanent closures and diversions.
- 5.9 The potential impact of road-based construction traffic will be reduced by ensuring suitable access arrangements along rural roads, monitoring carriageway conditions on B class roads and below, implementing appropriate controls through the use of a Vehicle Management System, and controlling hours of site operations and approvals for routes for large goods vehicles. Contractors will be required to consider and, where

reasonably practicable, mitigate noise generated by road-going construction traffic.

- 5.10 The CoCP will cover measures to minimise mud from construction sites being spread by construction vehicles onto the highway, control vehicle parking (including parking by the nominated undertaker and contractor staff) and control the transfer of excavated material and waste to approved disposal sites. Measures to control road mud also need to be approved by the relevant planning authorities under the planning regime.
- 5.11 The planning of the works will take into consideration the affected residential, commercial, industrial and farming premises, and specifically their requirements for access and servicing (including delivery, collection and maintenance). The Bill includes a general requirement to maintain reasonable pedestrian access to premises throughout the period of temporary closure.
- 5.12 Vehicular access and servicing will be maintained, as far as reasonably practicable, within the constraints of the works and the need to ensure the safety of the public; this may involve diversions, temporary traffic controls and the use of temporary carriageways.

6 Traffic management measures

- 6.1 The construction works for the Proposed Scheme will affect other forms of transport. A wide range of temporary traffic management measures will be required, as appropriate, to facilitate the construction works and mitigate the potential impacts. These measures will vary and have a variety of impacts for different users and could potentially include:
- changes for pedestrians, cyclists and equestrians:
 - realignment or narrowing of footways to maintain pedestrian routes;
 - realignment or narrowing of carriageway cycle lanes, combined footways/cycleways, off-road cycle tracks and bridleways/byways to maintain cycle access;

- signed diversions for where there is a temporary closure of roadside footways and public rights of way (i.e. footpaths, bridleways and byways) where it is not possible to maintain pedestrian and cycle routes;
- signed diversions for equestrians where narrowing, realignment or temporary closure of bridleways/byways is required;
- changes for public transport users:
 - alterations to railway station entrances and exits and circulation of rail passengers within stations;
 - diversion of bus and tram routes and suspension and, where practicable, relocation of bus and tram stops and stands;
- changes for general vehicular traffic:
 - road closures with signed diversions;
 - lane closures;
 - two-way traffic temporarily using a single lane, including under traffic signal control;
 - temporary road and junction layouts;
 - introduction or removal of traffic regulation measures (such as one-way streets, banned turns and weight restrictions);
 - temporary traffic-calming measures;
 - changes to traffic signal timings;
 - temporary speed limits; and
 - suspension and (where practicable) relocation or reallocation of parking bays.

6.2 All temporary traffic management will be implemented and maintained in accordance with relevant guidance and codes, such as Chapter 8 of the Traffic Signs Manual, and with Safety at Street Works and Road Works

(both published by the Department for Transport). The design of traffic management will have due regard for the needs of vulnerable road users.

7 Consultation

- 7.1 The Highways Sub-Group of the HS2 Planning Forum, which includes representatives from all the local highways authorities affected by the Proposed Scheme, acts as a focus for consultation and liaison on highways and traffic issues that are route-wide. It will consider general construction traffic issues and the procedures for consultation and obtaining any necessary consents once construction commences.
- 7.2 Liaison will continue on a more local basis prior to and during construction to discuss specific day-to-day issues around construction traffic management as they arise. This is likely to involve the nominated undertaker and/or contractor(s), highway authority officers responsible for traffic management, highway maintenance, street lighting, traffic signals, walking, cycling and public transport services (as well as utility company representatives when necessary).
- 7.3 During construction, regular local traffic liaison meetings will be arranged with highway authorities, bus operators, taxi and trade representation (as appropriate), and the police - other emergency services will be included, as appropriate. These meetings will provide an opportunity for contractors to present proposals for future works affecting the highway, including methods of construction and proposed programme, and for a review of the associated traffic management requirements. This will allow the highway authorities to carry out their network co-ordination duties.
- 7.4 Some traffic management proposals may require Traffic Regulation Orders under the Road Traffic Regulation Act 1984 to cover measures such as the introduction of one-way streets, banned turns and temporary speed limits. These will be discussed at the liaison meetings. Applications for these orders will be made to the relevant traffic authority by contractors and advertised locally in the normal way.

- 7.5 The nominated undertaker, as part of the requisite community liaison arrangements, will require contractors to communicate regularly with parties affected by the works. Local residents and businesses will be informed - appropriately and in advance - of the dates and durations of any closures of roads or public right of way and will be provided with details of diversion routes at least two weeks in advance or when final details are available. Advance warning signs of road closures will be provided for users of roads and public of rights of way.

8 More information

- 8.1 More detail on the Bill and related documents can be found at www.gov.uk/hs2-phase2b-crewe-manchester.

References

Traffic signs manual:

<https://www.gov.uk/government/publications/traffic-signs-manual>

Safety at street works and road works:

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/321056/safety-at-streetworks.pdf