

High Speed Two is the Government's planned new, high speed railway. HS2 Ltd is the company responsible for designing and building the railway, and for making recommendations to the Government.

This factsheet is to update you about the route between Warburton and Bamfurlong (the connection to the West Coast Main Line) on the western leg. It explains:

- where the route would go in this area, and how it has changed since the consultation in 2013;
- how to find more information about the route and the project; and
- how to get in touch with us.

The route north of Crewe

The route north of Crewe would form the northern 51 miles (82 km) of the Manchester leg on the Phase Two network. It would begin 600m to the south of the existing Crewe station, near the A500, continuing on from the Phase 2a route. The route would divide into two lines to the north-west of Knutsford. One line (the HS2 mainline) would continue north-west and finish at a junction with the existing West Coast Main Line (WCML) to the south of Wigan. The other line (the Manchester spur) would terminate at Manchester Piccadilly via a station near Manchester Airport.

In your area

The route would pass just west of Mossbrow in a shallow cutting and bear north-west, rising steadily onto an embankment on the approach to the Manchester Ship Canal. It would cross the Ship Canal, Manchester Road and the A57 on a viaduct before descending to an embankment and into a cutting to pass around the landfill site at Risley.

The route would pass to the south and west of Culcheth before bearing northwards, crossing over the Liverpool to Manchester railway and under the A580. It would pass through the gap between Lowton and Lowton Common in a cutting before rising onto an embankment to the south-west of Pennington Flash Country Park. A grade-separated junction that connects into the WCML south of Bamfurlong would allow trains to continue on to destinations in the North West and Scotland.

Between July 2013 and January 2014

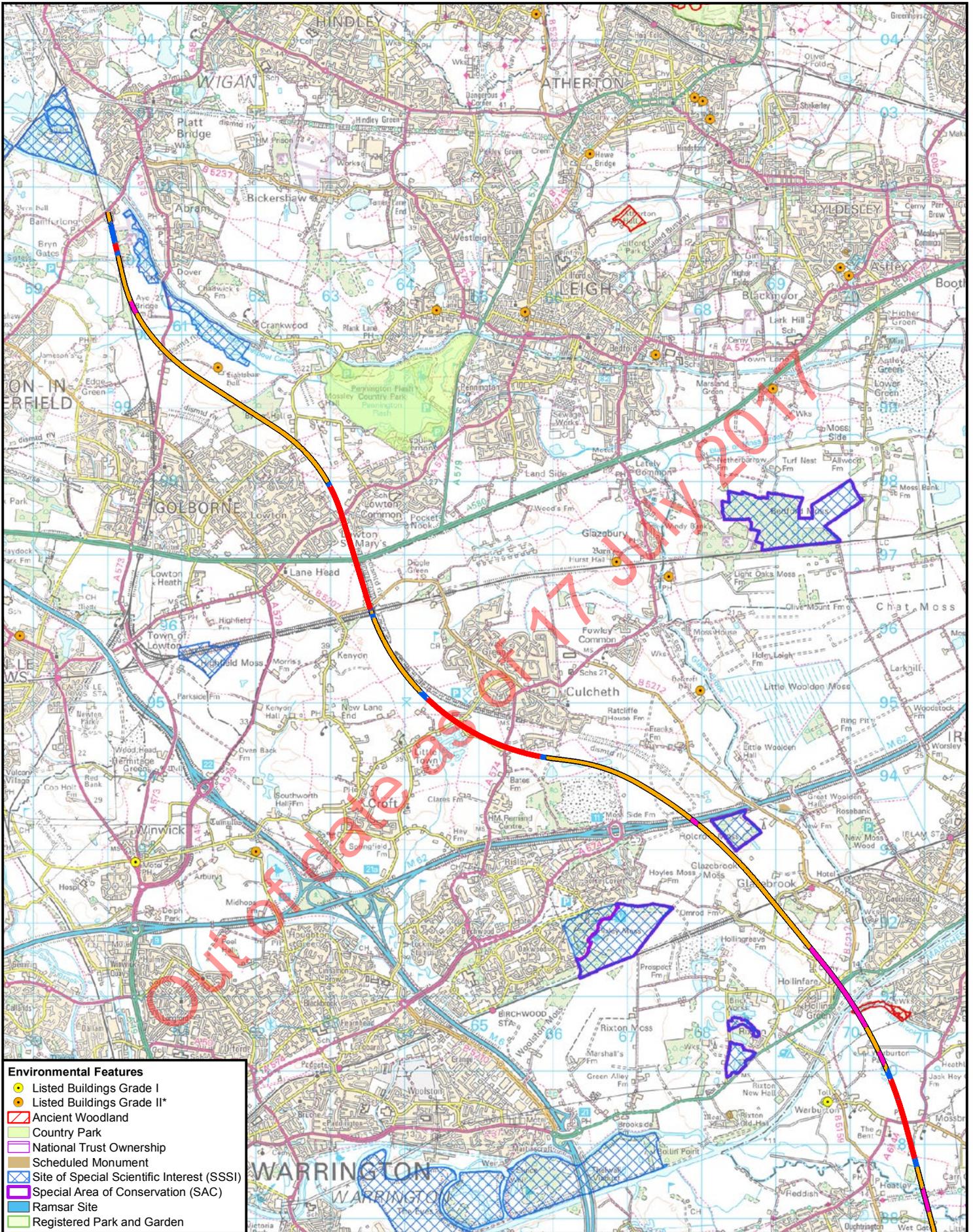
HS2 Ltd consulted the public on the proposed route and stations for Phase Two of HS2, from the West Midlands to Manchester, Leeds and beyond.

In November 2015

The Government announced its intention to bring forward the delivery of the Phase Two route between the West Midlands and Crewe, known as Phase 2a.

In November 2016

The Government announced proposals for the remainder of the Phase Two route, known as Phase 2b.



Environmental Features

- Listed Buildings Grade I
- Listed Buildings Grade II*
- Ancient Woodland
- Country Park
- National Trust Ownership
- Scheduled Monument
- Site of Special Scientific Interest (SSSI)
- Special Area of Conservation (SAC)
- Ramsar Site
- Registered Park and Garden

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Legend

Preferred Route

- At Grade
- Bored Tunnel
- Cut And Cover Tunnel
- Cutting
- Embankment
- Viaduct
- Depot/Station Operational Boundary
- Phase One/2a Route

High Speed Two

Phase 2b

Warburton to Bamfurlong

Scale at A4: 1:65,000

0 1 2

Kilometres

Registered in England. Registration number 06791886.
Registered office: 2 Snowhill, Queensway,
Birmingham B4 6GA.

Doc Number: PH2-HS2-CO-MAP-000-000001-P02 **Date:** 21/11/16

Changes to the route since 2013

Since the 2013 consultation we have refined the route based on consultation responses, updates to design standards, lessons learnt from Phase One and ongoing strategic review of the Phase 2b proposals.

Manchester Ship Canal

The route would cross over the Manchester Ship Canal on a viaduct up to 28m high. This height is determined by the need to allow sea-going cargo vessels to pass along the canal and to avoid constructing piers in the canal itself. As a result of lessons learnt from Phase One, the viaduct over the canal has been slightly flattened to improve the track geometry, and thus has lengthened by 120m. The design speed over the viaduct has also been reduced to 320kph from 360kph, to avoid the need to further increase the height of the associated structures, delivering a reduction in the expected noise impacts. As services travelling on this section of route will need to slow to join the WCML, we do not consider that this will have a significant impact on the overall journey times to the North West. In response to the 2013 consultation, we considered options to tunnel underneath the canal; however, this would be very complex to construct and would carry significant environmental risk because of local geology and landfill sites.

Culcheth

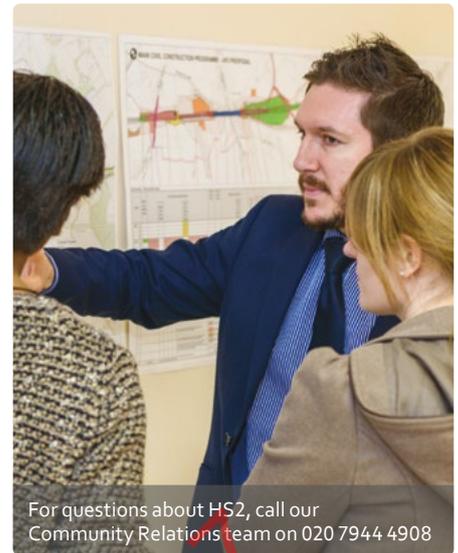
The viaduct over the M62 would be raised by up to 4m, to a height of approximately 11m, in order to improve clearance over the motorway and, as the route passes Risley landfill, it would be raised from a maximum height of 3m to a maximum height of 7m in order to improve clearance over watercourses.

In response to the consultation, the route has been moved approximately 300m to the south-west, avoiding Taylor Business Park and Culcheth Linear Park, and passing close to the community of Wigshaw at ground level. To accommodate the alignment changes, the design speed has been reduced to 230kph from 300kph.

Golborne

A significant change in this area is the removal of the rolling stock depot, which was previously proposed at a site to the north of Golborne. This would lessen the environmental impacts on the area by reducing the footprint of HS2. The removal of the depot has also allowed the route to be moved approximately 410m further south, away from Pennington Flash Country Park and Abram Flashes Site of Special Scientific Interest (SSSI). It has also been raised to improve clearance over watercourses and aid drainage, whilst still maintaining a lower profile than the infrastructure previously proposed to access the depot. The south-facing connection to the WCML has also been removed, further reducing the overall impacts of the route in this area.

For more information about changes to the Phase 2b route since 2013, please review the [Summary of Route Refinements](#).



For questions about HS2, call our
Community Relations team on 020 7944 4908

Out of date as of 17 July 2017

Key impacts

This section highlights the key impacts of the preferred route. For further information about these impacts, please review the [Sustainability Statement](#).

Landscape and visual

The high viaduct over the Manchester Ship Canal and embankments north and south would be prominent within the landscape and affect the character of the area, giving rise to visual impacts for residents in villages including Hollins Green, Partington, Cadishead and Glazebrook.

Where feasible and appropriate, we would apply a high-quality landscape design that fits into the character of the surrounding landscape. Examples of this may include the planting of trees, hedgerows and shrubs and the creation of landscape earthworks, to reduce any potential adverse impacts.

Water

The preferred route would cross a number of rivers and streams, and their floodplains, as well as canals. Any impacts would be kept to a practicable minimum, and we are working and will continue to work closely with the Environment Agency and other stakeholders to determine how best to do this. Watercourse crossings are designed to reduce the effect on the watercourse, its wildlife and associated wetland habitats. The design is also engineered to take account of future flood risks.

Biodiversity and wildlife

Early design work has ensured that no protected sites would be directly affected by the route alignment. Direct impacts on Abram Flashes SSSI would be avoided. Likewise, the route has been designed to avoid impacts on the Manchester Mosses, particularly Holcroft Moss Special Area of Conservation and SSSI. We will continue to work closely with Natural England and the Environment Agency to manage any potential impacts from construction and/or operation. HS2 Ltd has a policy to seek no net loss to biodiversity.

Noise

Our initial airborne noise appraisal for this early stage of the design process has predicted levels of railway noise on groups of dwellings during an 18-hour daytime period.*

Residual noise impacts have been reduced for residents at Hollins Green, Cadishead and Glazebrook due to a reduction in speed from 360kph to 320kph where the route passes on a viaduct over the Manchester Ship Canal. The sustainability mapping included within the Sustainability Statement highlights areas likely to be affected by noise based on this early appraisal. It also indicates locations at which we would explore further opportunities to mitigate airborne noise, such as the use of noise barriers and earth mounds, as well as looking at ways to reduce noise entering properties. Please see the Noise factsheet, which provides further general detail on noise impacts.

Who are HS2 Ltd?

We are the company set up by the Government to deal with the design, engineering and technical requirements of building the railway.

We also have an important role in making sure that if you're affected by the Government's plans, you understand what to expect (and when), and how we can help.

*Noise is conventionally measured using the equivalent continuous sound level (LAeq) indicator. This level is defined as the constant level of sound that, over a period of time, has the same total sound energy as the actual varying sound over the same period.

Transport networks and access

Along the preferred route it is likely that several roads would require permanent or temporary realignment, such as the M62, A574, A580, A572, A573 and additional minor roads. At this stage we have not designed or appraised road realignments. We are already working with Highways England and, in due course, would work with local authorities to reduce any traffic disruption that might arise.

Some realignment of the existing railway will be required within the existing corridor where HS2 joins the WCML. We are already working with Network Rail to develop solutions and minimise disruption.

Where the preferred route or its construction would potentially sever rights of way, such as footpaths, bridleways and cycleways, new crossings or temporary access would be provided where practicable, subject to discussions with the relevant authorities.

Construction

We are extremely aware of the issues that building a new railway presents to those who live nearby. We take our responsibilities very seriously. We are committed to reducing disruption to communities, business and the environment.

As part of the hybrid Bill process, a number of mechanisms will be introduced to control the environmental impacts of Phase 2b. For example, on Phase One, Environmental Minimum Requirements are a key element of the Government's overall strategy for ensuring that impacts which have been assessed in the Phase One Environmental Statement are not exceeded unless under certain circumstances.

Information papers on construction for Phase One can be found at the following link:

www.gov.uk/government/publications/hs2-information-papers-construction

Contact us at HS2

If you have any questions about this leaflet, please get in touch. You can contact our helpdesk on:

T: 020 7944 4908

E: hszenquiries@hs2.org.uk

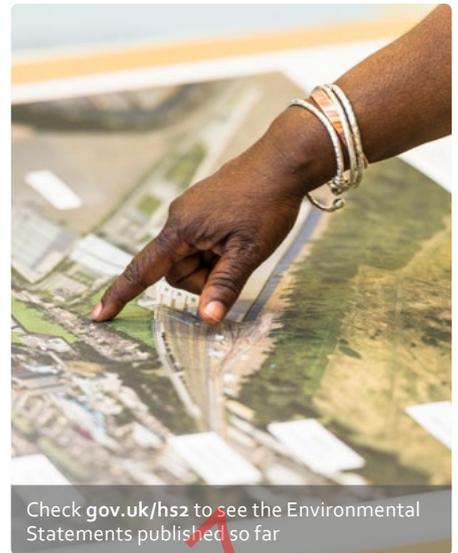
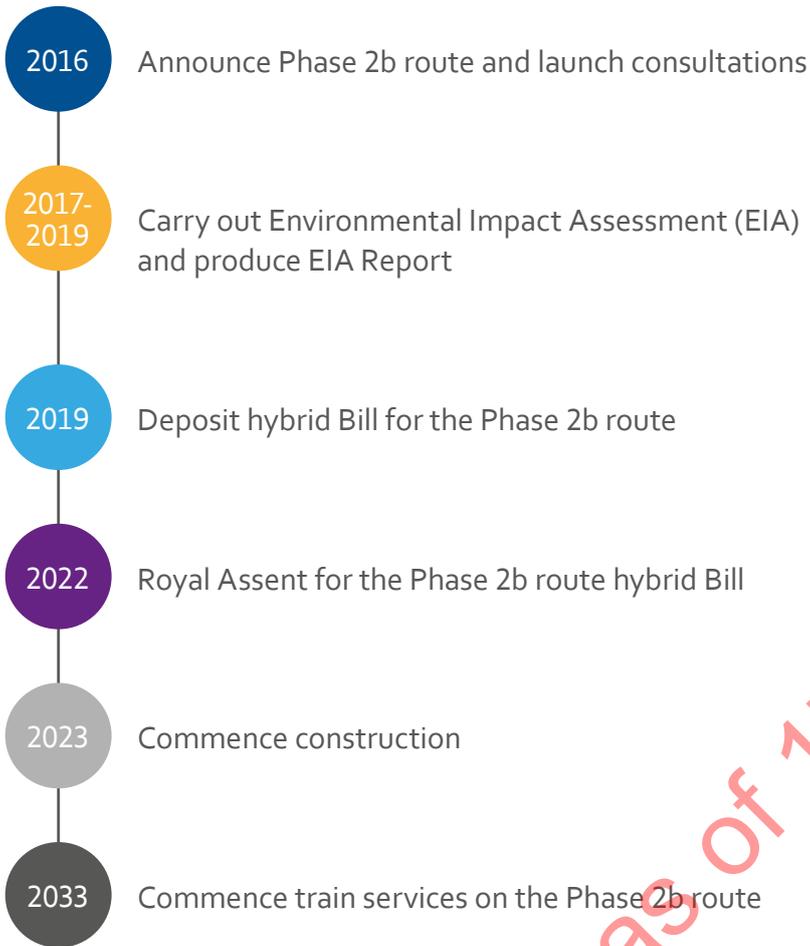
For the latest documents including route plans and profile maps visit:

www.gov.uk/hs2

Out of date as of 17 July 2017

Next steps

This graphic shows what would happen between now and when trains start running on Phase Two.



Presenting a hybrid Bill to Parliament is how the Government gets permission to build the railway, and provides the opportunity for everyone's comments to be heard. Construction can only begin with Parliament's approval.

We will also carry out an Environmental Impact Assessment (EIA) to understand how the project would affect the environment and local communities, and what we can do about it. Further work will be done to mitigate the impact of the railway as the design develops.

To find out more about the documents mentioned in this factsheet, visit www.gov.uk/hs2

Keeping you informed

We are committed to keeping you informed via various channels



Residents' Charter and Commissioner

The Residents' Charter is our promise to communicate as clearly as we possibly can with people who live along or near the HS2 route. You can read it by visiting:

www.gov.uk/government/publications/hs2-residents-charter

We also have an independent Residents' Commissioner whose job is to make sure we keep to the promises we make in the Charter and to keep it under constant review. The first of the Residents' Commissioner's reports is published at:

www.gov.uk/government/publications/hs2-residents-commissioner-report-1-may-2015

You can contact the Commissioner at:

residentscommissioner@hs2.org.uk

Project updates

For more information about Phase Two, visit

www.gov.uk/government/collections/hs2-phase-two-from-the-west-midlands-to-leeds-and-manchester

And for details of events in your area, visit

www.gov.uk/government/collections/hs2-events

Contact us

HS2 Helpdesk

Tel: 020 7944 4908

Email: hs2enquiries@hs2.org.uk

Property and compensation

You can find out all about HS2 and properties along the line of route by visiting:

www.gov.uk/government/collections/hs2-property

You can also find out if you're eligible for compensation at:

www.gov.uk/claim-compensation-if-affected-by-hs2

Jobs and skills

To see what jobs are available on HS2 at the moment, check our careers page:

<http://careers.hs2.org.uk>

If you're a student wondering what careers in STEM subjects are like, check out articles and have a look around our Plotr World:

www.plotr.co.uk/careers/worlds/hs2

And if you're a business wondering how to get involved with HS2, have a look at our guides and updates on:

www.gov.uk/hs2 – search for *HS2 business*

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