

Contact our HS2 Helpdesk team on **08081 434 434**

HS2 Update

Northolt Tunnel | June 2025

High Speed Two (HS2) is the new high speed railway for Britain. Skanska Costain STRABAG (SCSJV) is the main works contractor building the London tunnels between West Ruislip and Euston including the twin-bore Northolt Tunnel. The tunnel is being built using four tunnel boring machines (TBMs) in two phases, known as 'Northolt Tunnel West' and 'Northolt Tunnel East'.

Tunnelling progress so far

Our Northolt Tunnel West (NTW) TBMs, Sushila and Caroline, have completed their tunnelling journeys at Green Park Way Vent Shaft in Greenford and have been removed from the ground.

We are removing the structures and equipment needed to support the NTW tunnelling works at the West Ruislip Portal in Hillingdon.

Our Northolt Tunnel East TBM, Emily and Anne, arrived at Green Park Way Vent Shaft in June. We're planning to remove TBMs Emily and Anne from the shaft during summer 2025.

We are continuing works in Old Oak Common to build the sprayed concrete lining (SCL) tunnels between Victoria Road Crossover Box and Old Oak Common Station.



Engagement events

Our engagement team regularly hold events to provide information and answer any questions you have about the tunnels. Our upcoming online events are:

- Virtual drop in – Tunnelling works - Every third Tuesday of the month
- Virtual drop in – West Ruislip demobilisation works – Every third Monday of the month

For more details and to check for other upcoming events, visit HS2.org.uk/events or scan the QR code below with your smart phone camera.



TBM Caroline's big lift out of the shaft

TBM Caroline arrived at the Green Park Way Vent Shaft and Headhouse site in Greenford in April 2025. A vent shaft is the vertical opening that connects the tunnels, 35 metres below the surface, to the open air.

On 25 May 2025, we lifted TBM Caroline out of the Green Park Way vent shaft. She is the second TBM to be removed from the vent shaft.

The 2,050 tonne TBM, with a cutterhead 9.48 metres wide, was launched from West Ruislip in October 2022.

While tunnelling, TBM Caroline dug out over 1.2 million tonnes of earth and installed 4,217 tunnel rings.

We took TBM Caroline's cutterhead (the front of the TBM) off the rest of the TBM in the shaft and lifted it out in separate parts.

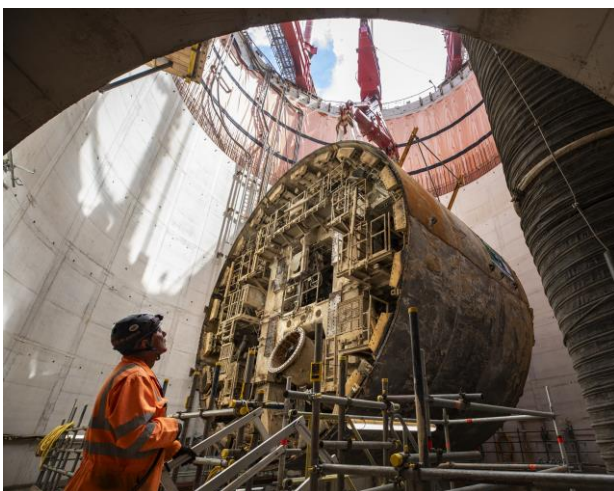
To safely lift the heavy cutterhead parts out of the shaft, we welded extra-strong lifting attachments to each part. We completed the weld in one go under strict temperature controls. This was to make sure it had maximum strength and was safe for the crane to attach lifting hooks to remove the heavy parts out of the shaft.

This complex process involved many teams across the project and took eight hours to complete.

We have now returned the parts to the TBM factory in Germany. TBMs Anne and Emily will go through the same process in summer 2025.



TBM Caroline lifted from Green Park Way vent shaft



A section of the TBM being lifted from the shaft



A close up of the extra-strong lifting attachments

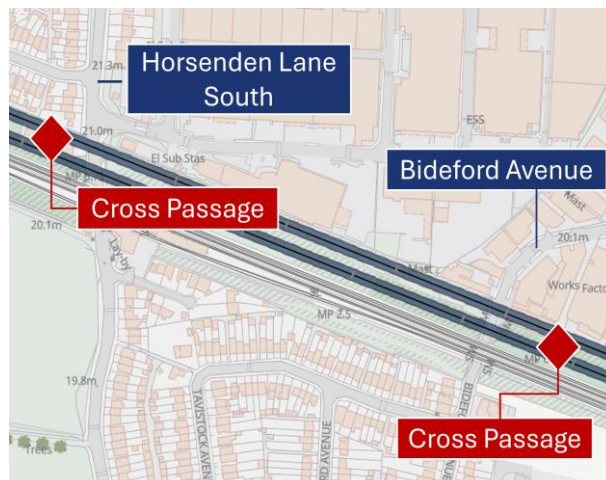
Completed and upcoming work

Cross passages

We are building two cross passages about 20 metres below Bideford Avenue and Horsenden Lane South in Perivale. A cross passage is a passageway that connects two parallel tunnels, allowing access for emergency services.

We will build the cross passages using a ground freezing method that is a proven safe way to control the ground during construction.

We will break out the side of the completed upline tunnel and use a remote-controlled robotic digger to dig out the frozen ground to build the cross passage.



We will then form the connecting passage with sprayed concrete lining. To find out about cross passages in your area, please see [hs2.org.uk/in-your-area/local-community-webpages](https://www.hs2.org.uk/in-your-area/local-community-webpages).

Permanent walkways

At the West Ruislip Portal we're building walkways inside the tunnel. The walkways will be the entire length of the tunnel.

We are building a wider walkway, which will allow passengers to safely evacuate a train and walk to the nearest cross passage and rescue train if there is an emergency in the tunnel.

We will also build a narrow walkway for maintenance access in the tunnel. We're using a formwork system to build the walkways. This involves installing a temporary structure to shape the walkway, and concrete pours. We will move the formwork system along the inside of the tunnel using an onboard generator.

Noise and vibration monitoring

We are carrying out noise and vibration monitoring before and during our works along the tunnel route.

We use a combination of permanent and temporary monitors. The monitors provide real-time data 24 hours a day, seven days a week.

Our noise and vibration specialists assess the data to identify any issues and find ways to reduce our impact further.

TBMs Emily and Anne complete their journeys

Our first Northolt Tunnel East TBM Emily has completed her 3.4-mile journey from the Victoria Road Crossover Box to Green Park Way vent shaft in Greenford. During her journey, TBM Emily removed 775,000 tonnes of London Clay and installed 17,514 tunnel segments. TBM Anne also completed her journey. We will remove both TBMs this summer 2025.



In other news

SCSVJ launches Hazard School at Willesden Euroterminal

In November 2024, we launched a “Hazard School” at our Willesden Euroterminal site in Old Oak.

The Hazard School provides contractors and apprentices with an opportunity to practice identifying and responding to on-site risks in a safe and controlled environment, before facing them on live projects.

This hands-on approach supports a strong safety culture and boosts confidence among workers, making sure they're better prepared for high-risk tasks including working at height, electrical works and lifting.



HS2 staff at the opening of SCSJV Hazard School

The Hazard School aligns with one of HS2’s core project values, ‘Safe at Heart’, to make sure we do everything we can to keep everyone safe and well.

We hope the concept will set a new benchmark for construction training and inspire wider adoption across the industry, improving safety standards on projects nationwide.

Calcined clay trial reaches a milestone

We are taking part in a 12-month trial with Innovate UK to help reduce carbon emissions in the construction industry. The project, called ExClay, involves using London Clay from the Northolt Tunnel East as a low-carbon option in concrete.

Through a process called calcination, the clay is heated, dried and ground into a fine powder. Once processed, the Calcined London Clay (CLC) is transformed into a useful material which can be added to concrete, replacing Portland cement.

We have now achieved the drying process and we will soon be adding the CLC material to concrete.

We aim to use concrete with CLC in a part of the project later this year. We will be the first in the UK to use calcined clay in this way.

Our participation in this trial is one of the ways we are getting closer to reaching HS2’s net zero carbon emissions goal by 2035.



We are proud to report that as of March 2025, we have reduced our carbon emissions by 40%.

For more information about HS2’s Net Zero Carbon Plan, visit hs2.org.uk/about-us/our-documents/net-zero-carbon-plan/.

Community investment

Easter Egg Appeal 2025

We ran a successful Easter Egg appeal in April 2025. Over 420 eggs were donated by staff and supply chain partners with an estimated value of £2,050.

The Easter eggs and bunnies were hand delivered to The Elderly & Disabled Charity Trust and the Dormer Wells Children's centre.

Both charities expressed their thanks for being chosen for this year's donations.



Northolt Village Community Centre

In May 2025, members of the Mandeville Road Vent Shaft and Headhouse site team spent a weekend giving the Northolt Village Community Centre a much-needed refresh.

The centre staff wanted to make the shared spaces more inviting to increase rental bookings. The centre uses the rental income to fund the continued running of this vital community resource.

We renovated and refurbished two rooms including the main hall at the community centre.

This renovation means the centre can continue to offer these rooms for use to the community. We are working with the community centre to see how we can help further.

Keeping you informed

We are committed to keeping you informed about work on HS2. This includes ensuring you know what to expect and when to expect it, as well as how we can help you.

The Residents' Commissioner

The independent Residents' Commissioner oversees and monitors our commitments to you.

The commissioner's reports and our responses can be found at www.gov.uk/government/collections/hs2-ltd-residents-commissioner

The Residents' Commissioner makes sure we fulfil the commitments in the HS2 Community Engagement Strategy (<https://bit.ly/3oOA25j>).

The Residents' Commissioner can be contacted on: residentscommissioner@hs2.org.uk

Construction Commissioner

The independent Construction Commissioner regularly meets our Chief Executive Officer to raise any concerns or emerging trends across HS2.

The Construction Commissioner's role has been developed to monitor the way we manage and respond to construction complaints.

The commissioner mediates on disputes about construction, involving individuals and organisations, that we can't resolve. The commissioner advises members of the public about how to make a complaint about construction.

The Construction Commissioner can be contacted on: complaints@hs2-cc.org.uk

Property and compensation

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

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

Find out if you can claim compensation at:

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

Holding us to account


If you are unhappy for any reason you can make a complaint by contacting the HS2 Helpdesk. For more details on our complaints process, please visit:

www.hs2.org.uk/in-your-area/contact-us/how-to-complain/

Contact us

Contact our HS2 Helpdesk team all day, every day of the year on:

 Freephone **08081 434 434**

 Minicom **08081 456 472**

 Email **HS2enquiries@hs2.org.uk**

Write to:

FREEPOST

HS2 Community Engagement

Website **www.hs2.org.uk**

To keep up to date with what is happening in your local area, visit:
www.HS2inyourarea.co.uk

Please contact us if you'd like a free copy of this document in large print, Braille, audio or 'easy read' format. You can also contact us for help and information in a different language.

HS2 Ltd is committed to protecting personal information. If you wish to know more about how we use your personal information please see our Privacy Notice:
<https://www.gov.uk/government/publications/high-speed-two-ltd-privacy-notice>

Reference number: HS2-EW-SCS-Ph1-Ar-So-S1 -Tun-1-8/5/2025

High Speed Two (HS2) Limited, registered in England and Wales.

Registered office: Two Snowhill, Snow Hill Queensway, Birmingham B4 6GA. Company registration number: 06791686. VAT registration number: 888 8512 56