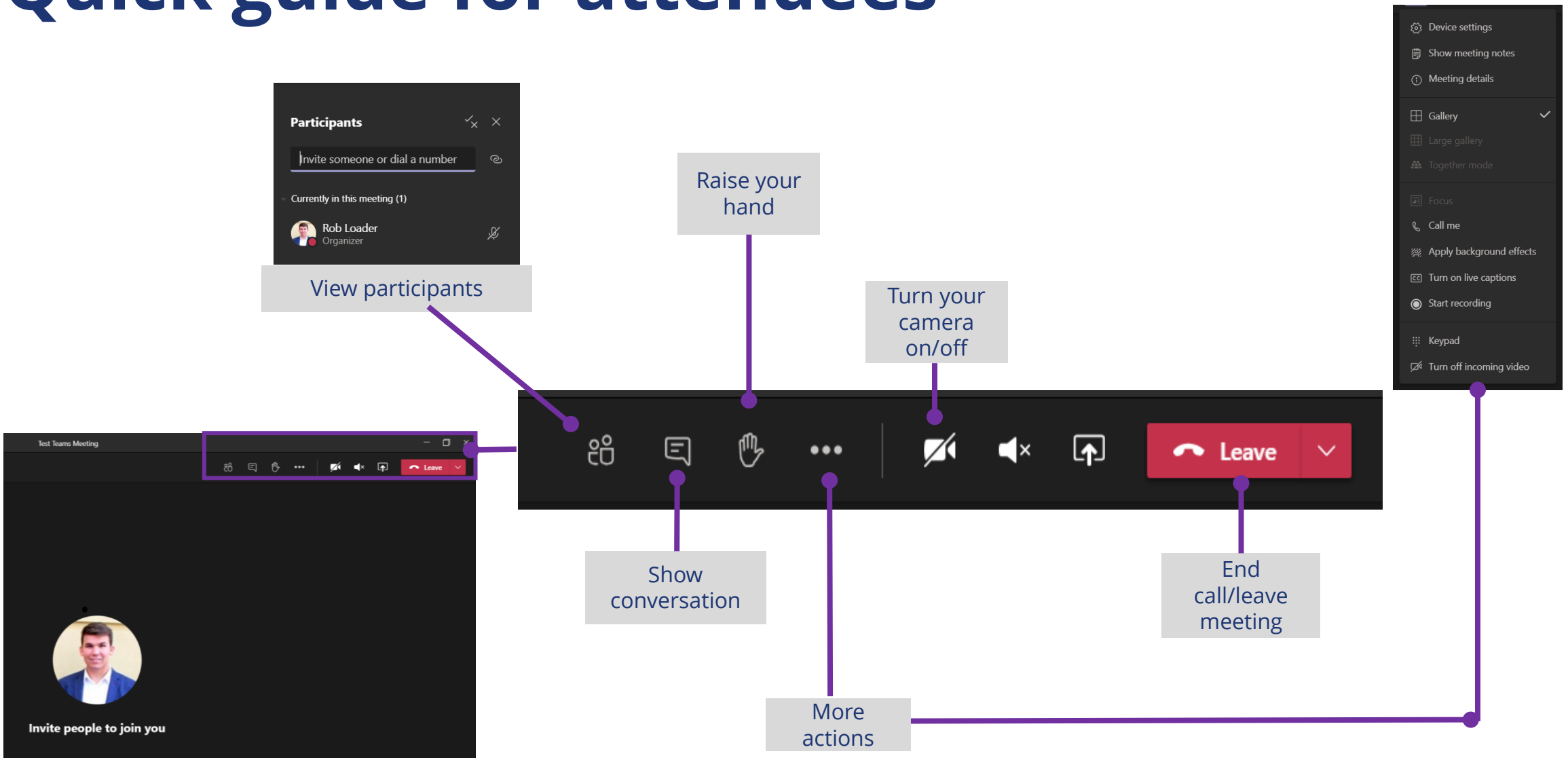
SKANSKA COSTAIN STRABAG Working in partnership with HS2

Euston Tunnel

Update – October 2023

Quick guide for attendees



Agenda

Item	Topic	Lead
1	Introductions	SCSJV – Engagement Team
2	Delivering HS2 London Tunnels	SCSJV – Engagement Team
3	Twin-bore Euston Tunnel	SCSJV – Engagement Team
4	Indicative construction programme	SCSJV – Tunnelling Team
5	Tunnelling method	SCSJV – Tunnelling Team
7	Engagement and next steps	SCSJV – Engagement Team

Housekeeping

- Please remain on mute while our presenters are speaking
- Please use the chat box to submit your questions which will be answered at the end
- You will be able to ask questions and provide feedback at the end
- This event will focus on the Euston Tunnel

Delivering HS2 London Tunnels

What we are doing

Skanska Costain STRABAG Joint Venture (SCSJV) are working in partnership with HS2 Ltd to build 16.4 miles (26.4 kilometres) of the high-speed railway between Euston and West Ruislip.

This includes 13 miles (21 kilometres) of tunnels and the associated ventilation (vent) shafts and headhouses to provide access to the tunnels for maintenance and emergency services, ventilation and power supply.

Euston Tunnel

The twin-bore Euston Tunnel will be approximately 7.2 km (4.5 miles) between the Old Oak Common Station and Euston. The depth of the Euston Tunnel between Old Oak Common Station and Euston will vary between 12 metres and 60 metres to the top of the tunnel.

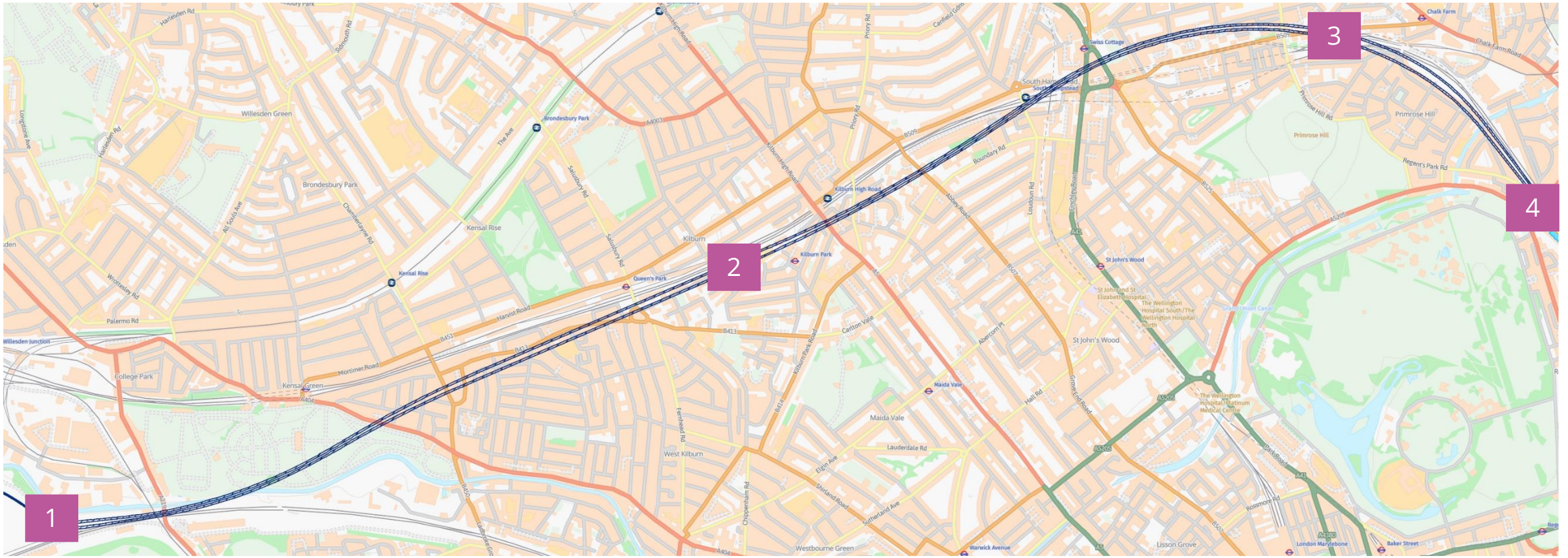
Twin-bore Euston Tunnel

1 Old Oak Common Station (BBVS)

2 Canterbury Works Vent Shaft

3 Adelaide Road Vent Shaft

4 Euston Cavern Headhouse



Programme update

The Government updated Parliament on their transport capital investment programme in March 2023. The statement included an update on the HS2 project, recognising significant inflationary pressures facing all parts of the UK economy. In line with direction from the Government, we are pausing some construction activities between Euston and Old Oak Common which will be rephased along with other sections of the HS2 project. This includes the construction of the twin-bore Euston Tunnel and ventilation shafts at Adelaide Road and Canterbury Works.

Below are the new indicative construction dates for the Euston Tunnel.

Construction Activity	Date
Completion of the Atlas Road Logistics Tunnel	Winter 2023*
TBMs will be delivered	From spring 2024*
Adelaide Road and Canterbury Works Vent Shafts will be brought to a safe pause	Spring 2024*
TBMs will be placed ready to bore at Old Oak Common Station	From 2025*
Construction of the Euston Tunnel	From 2026*

*Dates mentioned are subject to change, we will provide updates at hs2.org.uk

Tunnelling Method

Tunnel boring machines or TBMs are giant machines used to build tunnels. In the Old Oak and Park Royal area, five TBMs will be used to build the Northolt Tunnel East, Euston Tunnel and Atlas Road Logistics Tunnel.

How does a TBM work?

TBMs operate as a self-contained factory and will run 24/7, deep beneath the ground. As well as digging the tunnel, the TBM lines it with precast concrete segments and grouts the space between the tunnel wall and the surrounding ground.

The TBMs are fully built for testing at the factory, then broken up into numerous sections and transported to London. They're reassembled on site like a giant jigsaw puzzle before starting to build the tunnels.

Each TBM is made up of thousands of parts including:

- a rotating cutterhead
- a screw conveyor
- conveyor belts
- a tunnel segment erector

Moving excavated materials

HS2's construction partners, BBVS and SCSJV, have constructed a conveyor system in the Old Oak and Park Royal area to reduce construction traffic on local roads while we build HS2. It will move excavated materials from Old Oak Common Station, Victoria Road Crossover Box and the HS2 tunnels to Willesden Euroterminal site.

Installation of conveyor system in Atlas Road site in August 2022

Installation of conveyor belt and dust covers in Flat Iron site in September 2022

Installation of conveyor in the Willesden Euroterminal site in September 2022

Operation of the conveyor system

The SCSJV section of the conveyor system is now operational until approximately 2027. Dates are subject to change; we will provide updates at hs2.org.uk

Managing settlement

Settlement is the technical term for the way the ground moves around a hole after it has been dug out. Building tunnels, shafts and basements can cause a small amount of movement to the ground, but we know how to limit the effects of this movement on buildings.

HS2 is responsible for any damage caused to your property as a result of our works.

Assess

- Well established process to assess possible impacts of tunnelling works
- Conservative assessment that identifies propertie s that might be impact in the initial phases

Monitor

- Specialist equipment will be installed to monitor ground movements before, during and after construction.

Record

- We will offer condition surveys to properties that are eligible
- If you accept the offer, condition surveys are conducted within three months of the tunnelling impact to your property

Protect

- Structures that have been identified as at risk of being damaged will be protected

Repair

- If you are concerned about damage to your property resulting from our works you can contact us
- We will carry out a post-condition survey after the works if you believe damage has occurred as a result of our works

Managing impacts during tunnelling

Construction activities generate physical vibration and noise, which may cause temporary disruption to local properties.

Managing noise and vibration

We're designing and building HS2 in ways that reduce noise and vibration from our construction works as much as possible. The **HS2 Code of Construction Practice** outlines the measures we will implement to control and reduce noise and vibration during the construction of HS2.

Protecting your property

The **High Speed Rail Act 2017** automatically protects your property from damage as a result of our work. We offer property owners within 30 metres (m) of excavation work a settlement deed, and we will write to you if your property is eligible.

Managing noise and vibration at the location of our construction activities ('at source')

Using 'Best Practicable Means' and keeping our construction methods under review

Constant monitoring of noise and vibration during our works

Next steps

Indicative engagement plan for the Euston Tunnel

From autumn 2024 we will start to increase the engagement for the Euston Tunnel which will include the below:

In the meantime, we will still hold virtual drop-ins every month where you can book a 20minute slot to speak with us. Alternatively, you can contact us via the HS2 Helpdesk.

Engagement type	Planned engagement dates*
Pop-ups	Monthly
Drop-ins	Monthly
Information events	Every three months
FAQs	Every three months
Factsheet	Every three months
3 and 12 month lookahead	Every three months
Advance notification letters	When required

You can find the below engagement materials already available online at hs2.org.uk

Engagement type	Location / residents	Planned engagement dates*
Euston Tunnels FAQs	Between Old Oak and Euston	Available on hs2.org.uk
Northolt East Tunnels FAQs	Between Old Oak and Greenford	Available on hs2.org.uk
Factsheet (future tunnelling works)	Old Oak and Park Royal	Available on hs2.org.uk
Presentation (future tunnelling works)	Old Oak and Park Royal	Available on hs2.org.uk
Presentation (future tunnelling works)	Euston Tunnel	Available on hs2.org.uk
Presentation (future tunnelling works)	Northolt Tunnel East	Available on hs2.org.uk
Notification (Atlas Road Logistics Tunnel)	Old Oak and Park Royal	Available on hs2.org.uk

Useful links

Find out about our tunnel boring machines
https://www.hs2.org.uk/building-hs2/tunnels/meet-our-giant-tunnel-boring-machines/

Information about how we minimise ground borne noise and vibration
HS2 Phase One information papers: Control of ground-borne noise and vibration from the operation of temporary and permanent railways (E21)

HS2 Guide to ground settlement
https://www.hs2.org.uk/in-your-area/managing-impacts-of-construction/ground-settlement/

HS2 Community and Environment Fund and the Business and Local Economy Fund
https://hs2funds.org.uk/

What is happening in Old Oak and Acton
www.hs2.org.uk/in-your-area/local-community-webpages/hs2-in-old-oak-and-north-acton/

Do you have any questions?

Thank you for attending this online information event.