

HS2

ECRG Presentations & Slides

25 July 2024

Agenda

Time	Topic	Presenter
17:20	1. Welcome and Introductions	Chair
17:25	2. Minutes of the March meeting	Chair
17:30	3. Actions log	Chair
17:40	4. The Euston Partnership engagements	Ben White, Engagement and Communications Director and Kamal Hanif Head of Stakeholders and Engagement
18:00	5. London Borough of Camden engagements	To note only
	6. Works lookahead	To note only
18:05	7. HS2 Update 7.1 Mace Dragados	Natalie Kirkwood to take any questions
	7.2 Network Rail On Network Works	Jonathan Cooke to take any questions

Agenda

Time	Topic	Presenter
	7.3 SCS	Neil Van Kervel, David Hannon and Amy Allen to take any questions
18:20	8. Community Questions/AOB	Chair
18:35	Meeting dates for 2024 Tuesday 24 September Thursday 28 November	Chair

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1. Welcome and introductions

David Demolder – Chair

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2. Minutes of the last meeting

Chair

- To APPROVE the minutes of the March 2024 meeting

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3. Actions Log

Chair

- To review the Actions Log noting
 - Updated responses
 - Items proposed to be closed

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4. The Euston Partnership engagements

Ben White, Engagement and Communications Director

Kamal Hanif Head of Stakeholders and Engagement

- To receive an introduction to the role of the partnership
- To NOTE a briefing on the Euston Engagement Strategy
- To NOTE a briefing on the Euston Community Hub and engagement taking place about community uses

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5. LB Camden engagements

NOTE only

- LB Camden is undertaking public engagements on Open Spaces and The Euston Area Plan – see links on next slide should you wish to participate.
- It is happy to provide a briefing for members if there is interest.

Camden Engagements Links

Euston Area Plan

- Link to the Commonplace site: [Have Your Say Today - Euston Area Plan Review - Commonplace](#) This includes links to the various documents and an opportunity to record comments. Links to main documents are also set out below.
 - Consultation booklet (setting out the consultation information) [EAP consultation booklet July 24](#) (pdf, 6 MB)
 - Summary of consultation responses to proposed updates to the EAP 2023 [Summary of Consultation responses EAP update](#) (pdf, 4.5 MB)

Euston open space study

- Euston open space study (issued in 3 parts due to file size) [Euston Area Plan | Documents](#)
 - [Euston Open Space Study part1](#) (pdf, 16 MB)
 - [Euston Open Space Study part2](#) (pdf, 18.5 MB)
 - [Euston Open Space Study part3](#) (pdf, 6.7 MB)

6. Works Lookahead

- To NOTE only [Spring-2024-Construction-look-ahead-Camden-1.pdf \(hs2.org.uk\)](https://www.hs2.org.uk/hs2/hs2-works/lookahead/Camden-1.pdf)

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7. HS2 Update

- To note the previously circulated presentation slides
 - Please note that at the request of the Contact Group slides will not be presented
 - Members of the team will be available to take any questions

Materials by Rail

Question raised via the Contact Group

- “Tunnelling from OOC is expected to start circa April 2025. Could that tunnel be used to do more MbR?”
- “If the station is delayed but HMG is committed to going ahead, is there any scope to do more MBR using the existing tracks out of Euston by spreading the excavation over a longer time?”

Response

- We know that the construction works at Euston and the impact they have on the road network are of concern to the community and road users in the area. Decreasing the number of lorry movements in and out of Euston is critically important to us.
- In line with our U&As, we will consider all options for the removal of spoil from Euston. Opportunities for moving materials by rail is a key consideration in the ongoing development of Euston Station and underpins our approach to reducing the need for construction vehicles on local roads.
- We are committed to **working** with the Department for Transport and other stakeholders on a review of options to deliver materials by rail.
- No decisions have been made yet.

Commitments under the HS2 Act

Question raised via the Contact Group

- “If the HS2 Act is not used to consent the HS2 Euston station will the commitments under the Act, such as Undertakings and Assurances still apply?”
- This question has arisen from concerns that the consenting strategy for the HS2 station will change as a result of the establishment of the Development Corporation.

Response

- The HS2 Act granted “deemed consent” for the HS2 works subject to compliance with a series of obligations. There is also a requirement to submit applications such as for facilities accessible to non-ticket holders.
- Use of the Act powers provides the quickest route to delivering the HS2 station and entry into service of the line. Use of Act powers, and compliance with the obligations, remains the consenting strategy for the station.
- The powers and obligations under the Act are exercised by the Secretary of State through a nominated undertaker, currently HS2 Ltd. The Secretary of State is entitled to change the nominated undertaker who would continue to be responsible for complying with the obligations under the Act including the Undertaking and Assurances.

Meanwhile Use sites

1. Zone 5 may be required for works – options being explored
2. NTH temporary garden will be extended to include a play space
3. Community growing beds installed
4. Maria Fidelis Annex building handed over for community project
5. Commercial use proposed
6. Euston Square Gardens West temporary open space



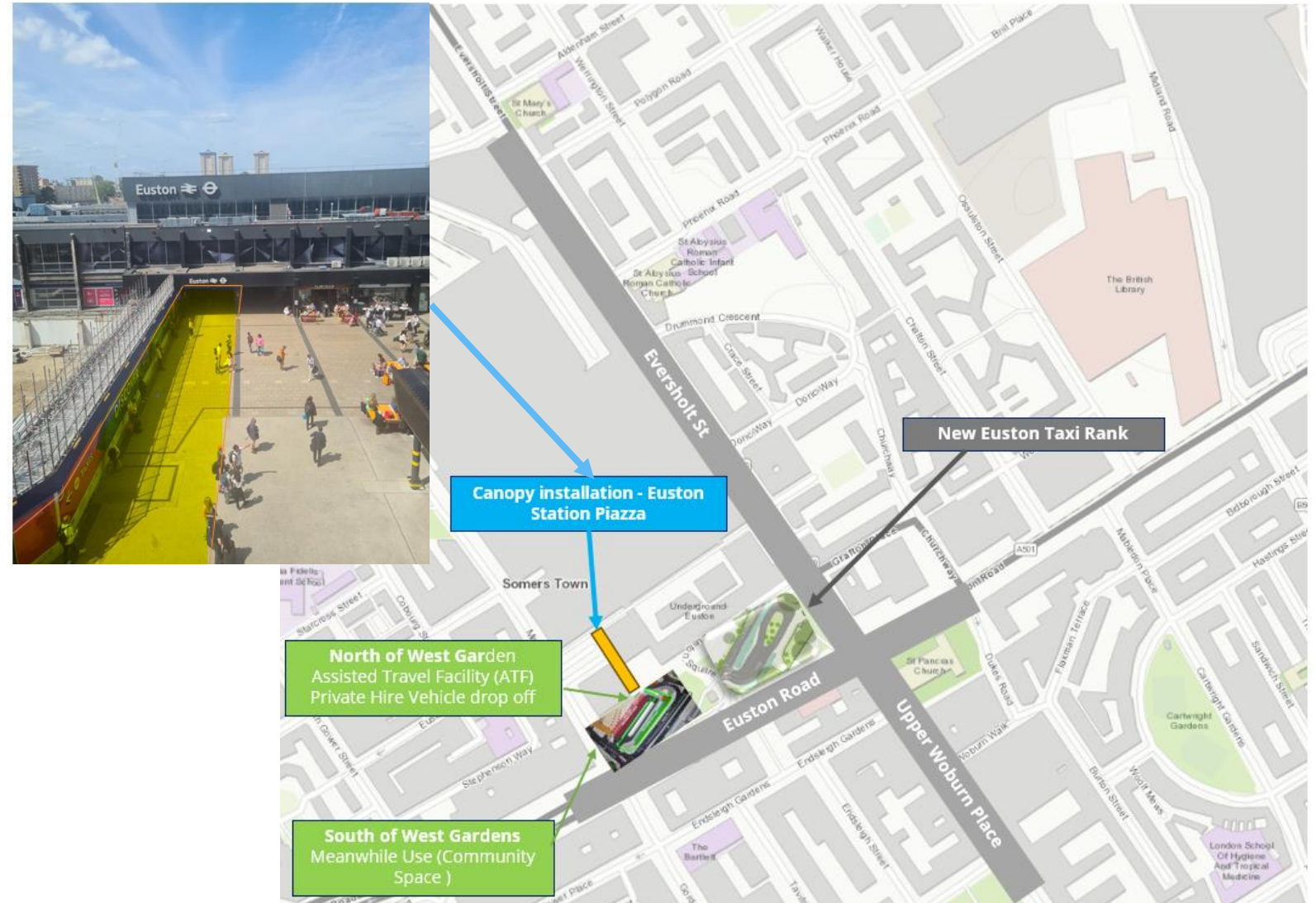
Euston Station canopy and West Gardens

Euston Station Canopy

- From late July until mid- September 2024 we will install a temporary canopy in the station piazza
- Most of the works will take place at night 10pm until 5am with minimum traffic management
- Pedestrian access maintained throughout

Euston Square Gardens – West

- Decommissioning and construction of meanwhile green space is underway in Euston Square Gardens
- Green space expected to be opened between September – October 2024.



Western Gardens Decommissioning

Progress photo



NTH Gardens Phase Two

Engagement for NTH Gardens Phase Two is progressing well with

Local young people have designed a feature structure for the space

The build for the space will take place in August by the young people and supported by volunteers

Space to open in September 2024



Maria Fidelis Gardens

Space handed over to Hopscotch in June 2024 with a programme to promote women's health, wellbeing, and independent sustainability.



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7.1 Mace Dragados

Natalie Kirkwood to take any questions

Non-contestable UKPN works – Hampstead Road/Varndell Street

29 July – 4 August 2024

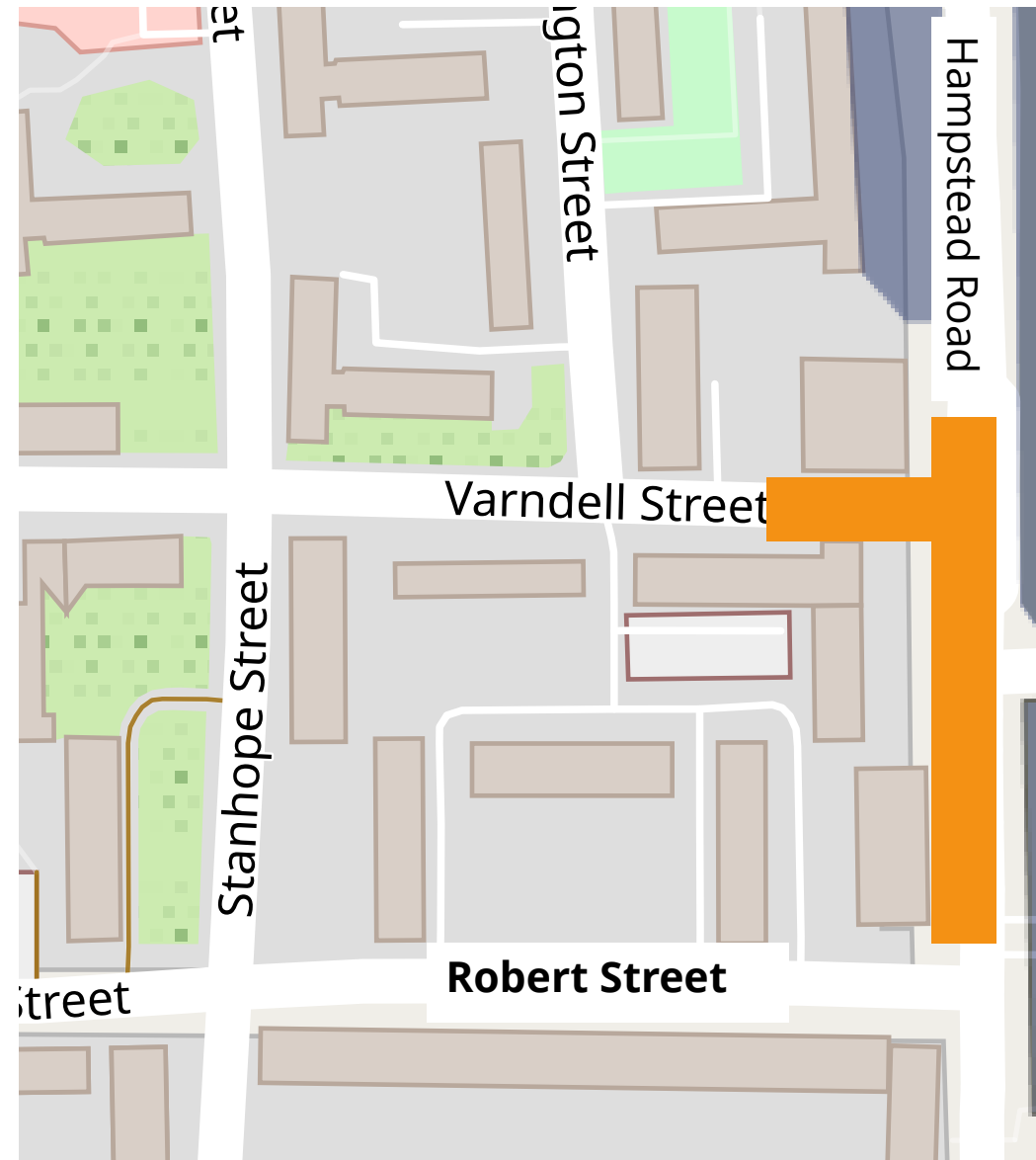
UKPN works on behalf of MDjv to **enable the Traction Substation (TSS)** to come into use this autumn

Varndell Street closed to traffic – local diversions in place

Robert Street will be open during these works

Location of works shown in **orange**

Dates subject to change



North Gower Street (Old Maria Fidelis School)

Removal of external wall on North Gower Street (from 3rd July)

Foundation and drainage installation (from 10th July for up to 3 weeks) – **this will generate noise at times**

Works taking place within our site boundary (see **orange** square opposite)



Cobourg Street Night-time works

Utilities works Cobourg Street footpath from Late -July until August 2024.

10pm to 5am nightly

South Cobourg Street will remain closed during these works. Will re-open September 2024.



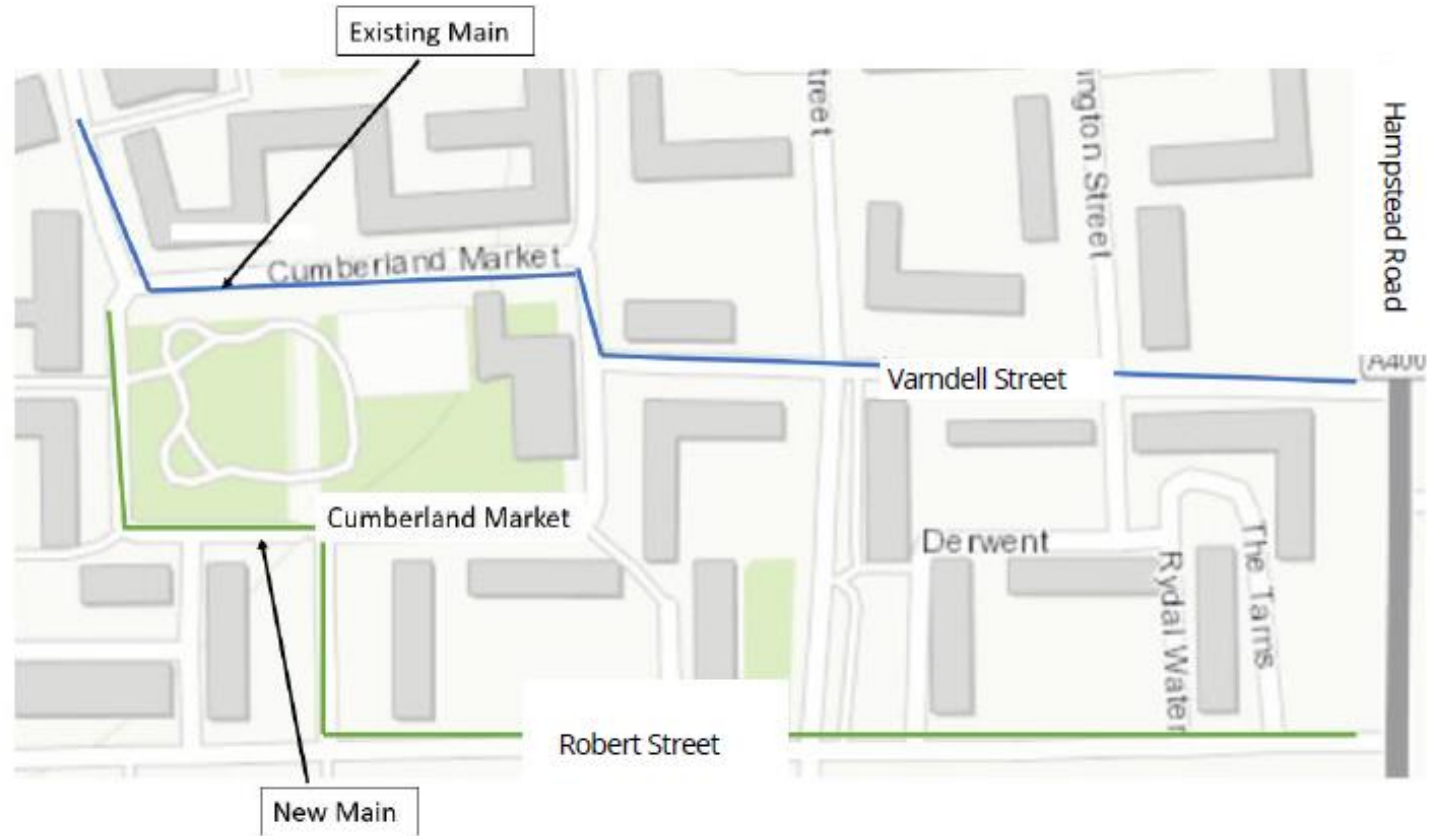
Location of works

Watermain Commissioning – Cumberland Market and Robert Street

Most works completed

One site compound remains on Cumberland Market

Robert Street closed to vehicles -
traffic management reduced



Robert Street site reduction

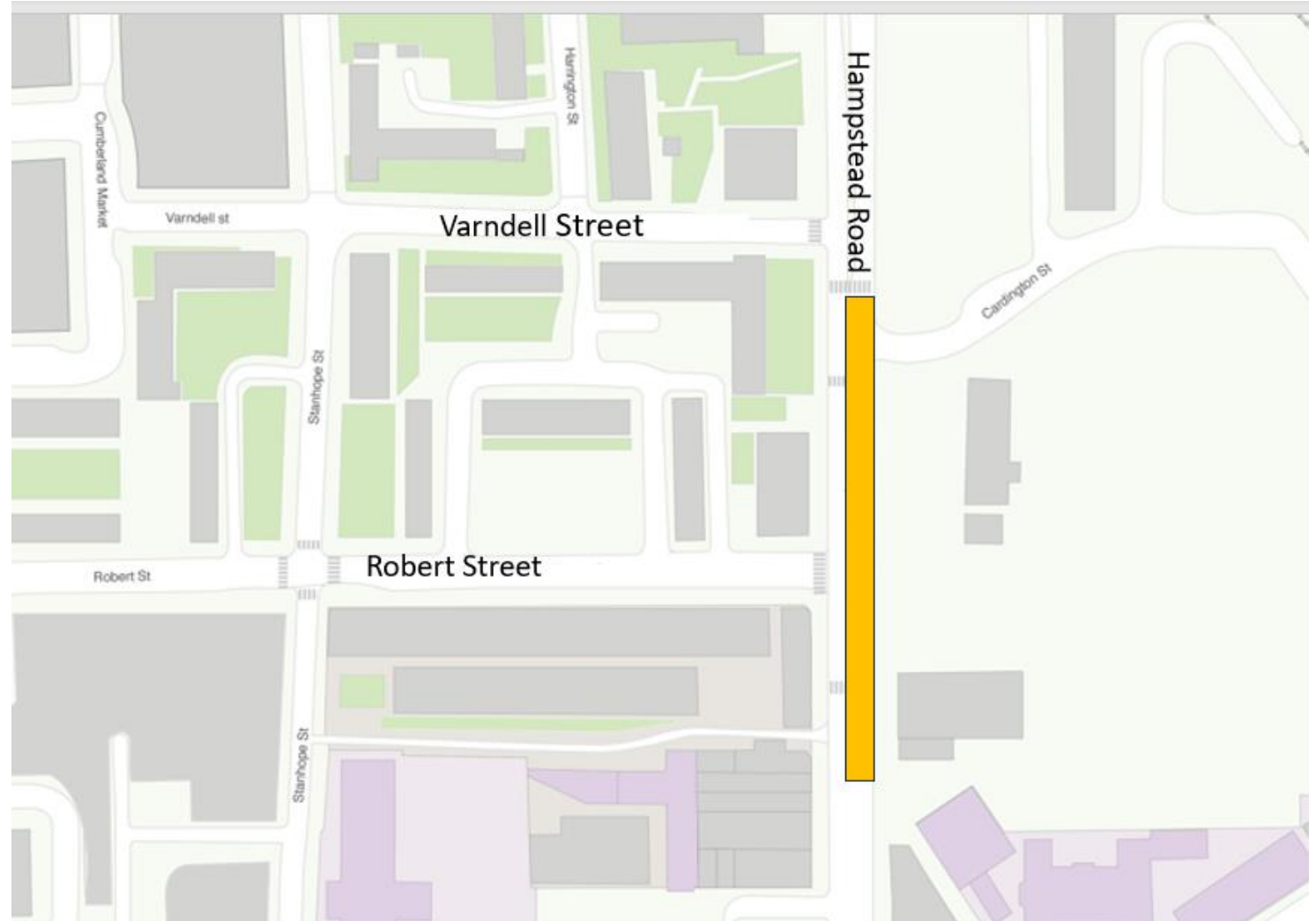
- Robert Street will remain closed until the works on Hampstead Road are completed.
- This is to ensure the safety of cyclists and how they interface with vehicles on Hampstead Road.



Image of Robert Street

Hampstead Road Thames Water Works

- 22 April 2024 to **late August / early September 2024**
- Delay is owing to technical difficulties and leak
- Installation of new valve on existing water main in Hampstead Road
- Installation of cross connection between existing valve and newly installed water main
- Construction of concrete thrust block beneath the existing main



Traction Sub-station (TSS)

- From **Autumn 2024 until Spring 2025** we will start to bring the Traction Substation (TSS) on Stephenson Way into use.
- The concrete will be painted this summer (August 2024)
- The permanent façade is still in design phase. The installation of the cladding is now programmed to begin late 2026.



Community Initiatives - Camden BeeLine and Drummond Street Traders

- Camden BeeLine is a community project that aims to increase green space and biodiversity across the borough of Camden.
- This project came to life on Drummond Street Wednesday 22nd and Thursday 23rd May 2024
- MDjv built 23 planters to specification and delivered them to 18 businesses.
- Using volunteers to help with installation, flowers and plants we planted with the aim to increase biodiversity to help grow the local bee population.
- More information can be found here: [Camden BeeLine – Connecting Camden's Green Space](#)



Image of planters



Image of Bee on some lavender plants



Image of planter in-situ



Image of planted planter

6.2 Network Rail On Network Works Update To NOTE the works lookahead.

Jonathan Cooke to take any questions

Euston station update

On Network Works



Working in
partnership with

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19th March 2024 – Euston Community Representative Group

HS2 On Network Works: Summary of work

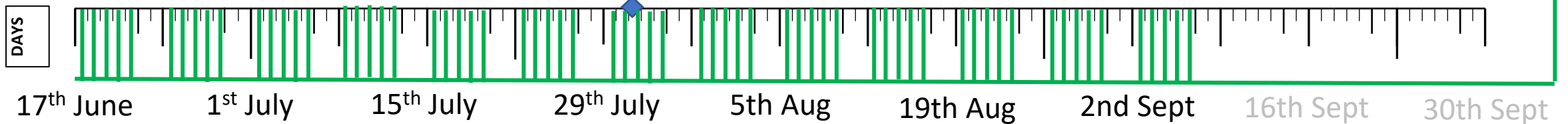
15 July – 6 September 2024

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We mostly work daytime hours of 0800-1700 Monday – Friday.

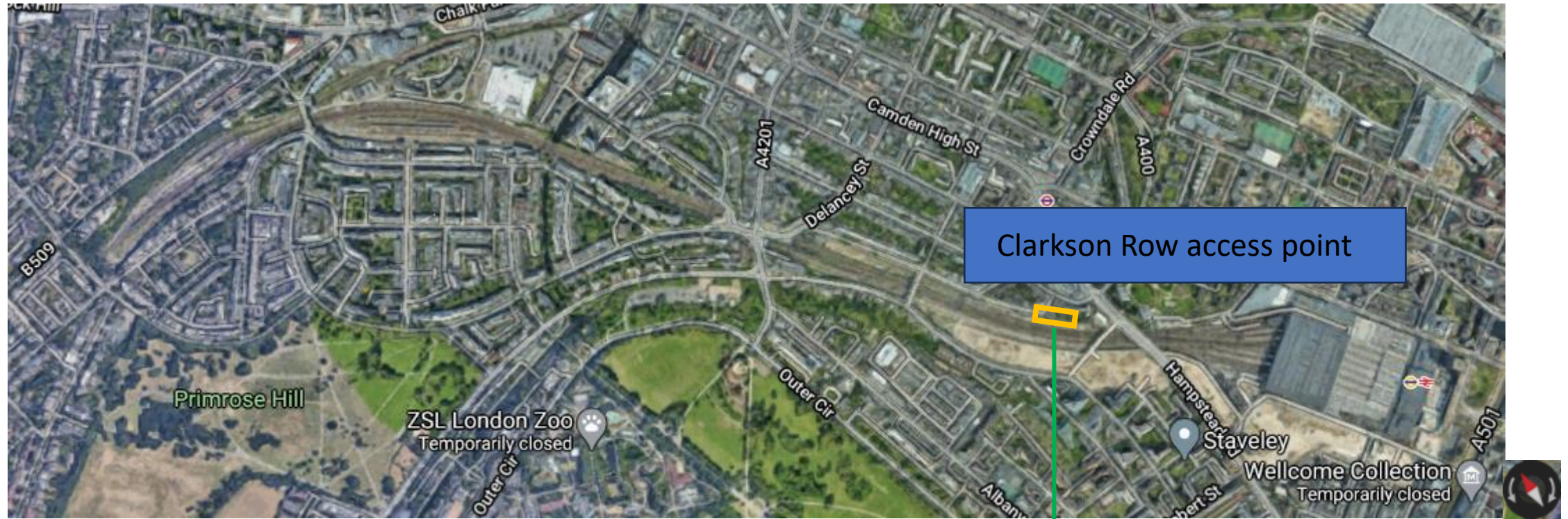
(Some movement of materials and vehicles will happen overnight when required via the railway)



HS2 On Network Works: Summary of work

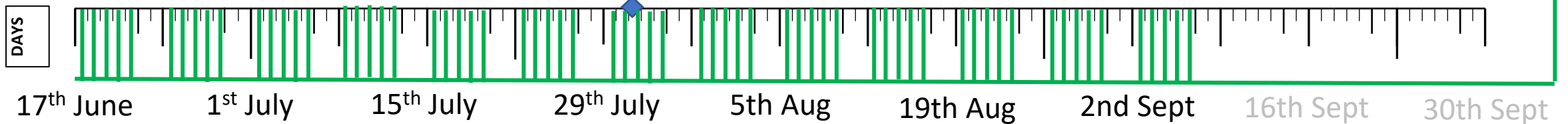
15 July – 6 September 2024

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(Some movement of materials and vehicles will happen overnight when required via the railway)



New access point at Clarkson Row

Work by the Network Rail On Network Works team to install a new vehicle railway access point at Clarkson Row is well underway. This will enable maintenance to be carried out to railway equipment on the eastern side of the station.

We have finished building the ramp structure and are working on installing the utilities, fittings and markings. We expect work will be finished by the start of September 2024.



Mornington Place volunteering

A team from the Clarkson Row worksite and Network Rail worked with the Clarkson & Mornington tenants & residents association (TRA) to clean up some front gardens.

This has since enabled residents in the area to add new plants and flowers to their gardens.



Click picture above to [watch a short video of our volunteering at Mornington Place](#)

Euston station – parcel deck (above platforms)



A temporary façade is now in place constructed from steel and fabric panels. This will protect the train shed building from weather during the pause of major work.

Line closure: Euston – Watford Junction Overground



Essential Bakerloo line and London Overground upgrades this summer

Between Saturday 3 and Thursday 8 August there will be no service between Queen's Park and Harrow & Wealdstone on the Bakerloo line and between Euston and Watford Junction on the London Overground.

Please check your travel options by visiting nationalrail.co.uk, tfl.gov.uk/bakerloo-overground or the using the TfL Go app.

Alternative routes are available via existing local and additional temporary bus services* connecting to Tube and rail services.

*Additional temporary bus services will run

718: all stations between Queen's Park – Harrow & Wealdstone (Operates every day)

719: all stations between Queen's Park – Wembley Park, via Wembley Central

(Operates 07:30 – 20:30 Monday – Thursday)

720: All stations between Harrow-on-the-Hill via Harrow & Wealdstone – Watford Junction (Operates every day)

The London Overground line between London Euston and Watford Junction will be closed between 3 August – 8 August.

The Bakerloo Line will terminate at Queens Park during the closure.

The improvements will include:

- Renewal of the power system, this includes 32.5km of new cabling.
- Upgrading 3km of conductor rail, the track that provides power to trains via a steel rail.
- Renewal of the high voltage power system that provides power to the trains. This includes replacing 3km of aging 11kv power cables.
- Upgrading track switches and crossings - these are moveable sections of track that guide trains from one track to another.

We're working with our partners at TfL to inform passengers about the changes to journeys.

You can read more in our press release [here](#)



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7.3 SCS

Amy Allen, Neil Van Kervel and David Hannon to take any questions

SKANSKA



STRABAG

Working in
partnership with

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Tunnels and Shafts construction update

July 2024

Adelaide Road Headhouse & Ventilation Shaft (ARVS)



Pause to works

What to expect during the ongoing pause to works

In line with direction from the Government following its announcement in March 2023, work at the Adelaide Road site have been brought to a safe stop and paused between spring 2024 and spring 2025*.

From May 2024:

- Large machinery has been removed from site
- Hoarding and welfare cabins will remain in place
- 24/7 Security presence will continue
- Lighting on site is reduced, but is required for security purposes
- Some works will continue, within and outside the site, including monitoring, surveys, and design work
- Environmental monitoring of noise, vibration & dust is continuing
- The SCS JV engagement team will continue to be available to speak about our works, contactable via the HS2 Helpdesk (operational 24hrs, 365 days)

*the dates for these phases might change. We'll provide updates at hs2.org.uk/in-your-area/

Construction programme 2024 – 25*

Adelaide Road Headhouse & Vent Shaft	2024				2025			
	Jan - Mar	Apr - Jun	Jul - Sept	Oct - Dec	Jan - Mar	Apr - Jun	Jul - Sept	Oct - Dec
Headhouse								
Ground Slab construction incl. temporary under slab drainage, electrical earthing, waterproofing installation & reinforcement installation								
Vent Shaft								
Start of shaft – Pre-Cast Concrete (PCC) ring installation								
Site pause to works								
Prepare site for pause to works								
Headhouse & Vent Shaft works paused								
Prepare site to resume works								
Utility Works								
Eton Avenue, 29 Jan – 3 Feb (1 week) Surveys & Trial Holes of medium pressure gas main								
Loudoun Road 5 Feb – 10 Feb (1 week) Surveys and Trial Holes of medium pressure gas main								
Kilburn High Road, crossing junction of Oxford Rd & Greville Rd. Gas main diversion works								

*Dates mentioned are subject to change, we will provide updates at hs2.org.uk/in-your-area/

ARVS engagement lookahead 2024

Social Value

Commencing July 2024

Home Kitchen, Primrose Hill

Home Kitchen aims to transform the perception of homelessness and make a positive impact on the UK hospitality sector. Their mission is to help socially vulnerable people get out of poverty and into work. They are opening their first restaurant in Primrose hill with chef Adam Simmonds.

SCS JV are supporting the initiative by aiding in construction/electrical works and providing labour resource, as part of the preparation for opening.

Further information about Home Kitchen can be found here:
homekitchenlondon.org

Monthly virtual 1:1s RE: ARVS site

Sessions take place monthly, on the following dates **throughout 2024**:

Complete

Wednesday 21 February, 3pm to 6pm;
Wednesday 20 March, 3pm to 6pm;
Wednesday 17 April, 3pm to 6pm;
Wednesday 15 May, 3pm to 6pm;
Wednesday 19 June, 3pm to 6pm

Monthly virtual 1:1s RE: tunnelling (twin-bore Euston Tunnel)

Sessions take place monthly, on the following dates **throughout 2024**:

Complete

Tuesday 20 February, 3pm to 6pm;
Tuesday 19 March, 3pm to 6pm;
Tuesday 16 April, 3pm to 6pm;
Tuesday 21 May, 3pm to 6pm;
Tuesday 18 June, 3pm to 6pm;
Tuesday 16 July, 3pm to 6pm;

Upcoming

Tuesday 20 August, 3pm to 6pm;
Tuesday 17 September, 3pm to 6pm;

Other

- **Quarterly** 3 & 12 month construction look aheads published here: [HS2 in Camden - Construction forward looks](#)
- **Biannual** newsletters
- **As required** Advance Notification Letters issued ahead of new works activities
- **As required** local pop ups
- **As required** Factsheets & FAQs
- **Ongoing** enquiries & complaints via the HS2 Helpdesk
- **Ongoing** engagement RE: Noise Insulation installations

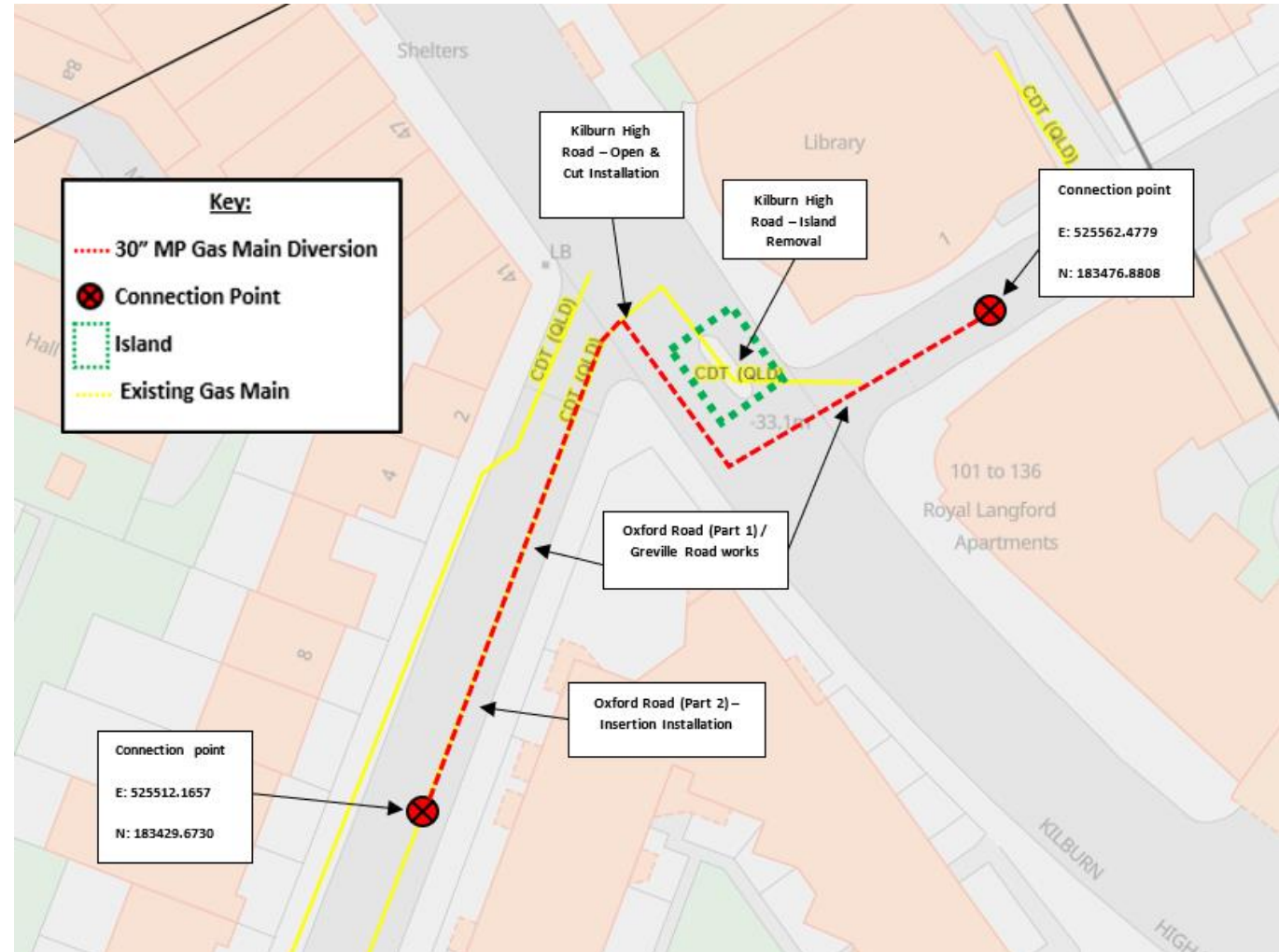
Kilburn High Road utility works



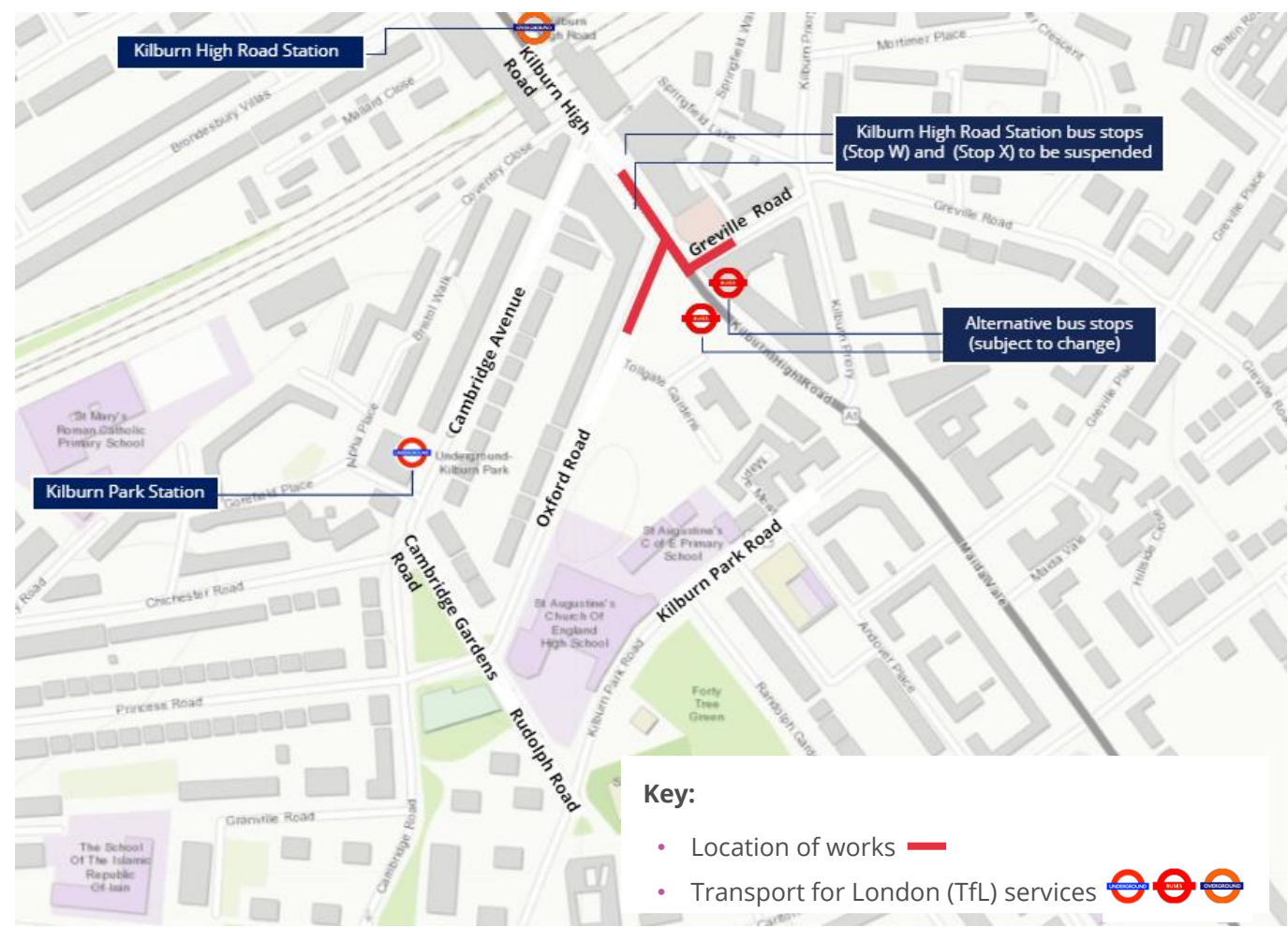
Utility works on Kilburn High Road

Scope of Works

- Protection of existing utilities affected by HS2 tunnelling works
- Replacement of existing 30" SI (Spun Iron) Medium Pressure Gas Main with 630mm PE (Polyethylene) Main
- Replacement starting from Oxford Road leading to Kilburn High Road (KHR) ending in Greville Road
- Approximately 90 Metres of Gas Main replacement
- Location in lower Kilburn High Road is at the boundary of 3 local authorities: LB Camden, LB Brent & LB Westminster



Utility works on Kilburn High Road



Phase one: 13 May to 12 July 2024*	Day time from 8am to 6pm Partial Road closure on Greville Road and Oxford Road, Lane closure (Eastbound) on Kilburn High Road and partial footpath closure on Greville Road
Phase two: 13 July to 28 July 2024*	Day time from 8am to 6pm During the week, partial road closure on Kilburn High Road, Greville Road and Oxford Road, partial footpath closure
Weekend full road closures: 03-04 Aug; 10-11 Aug and 17-18 Aug*	On three weekends, the lower end of Kilburn High Road will have full road closures in place. Works will take place overnight during this time to place/remove traffic management only
Phase three to five: 29 July to 09 August 2024*	Day time from 8am to 6pm Partial Road closure on Greville Road and Oxford Road, Lane closure (Eastbound) on Kilburn High Road and partial footpath closure on Greville Road
Phase six: 12 August to 30 August 2024*	Day time from 8am to 6pm Partial Road closure on Greville Road and Oxford Road, Lane closure (Eastbound) on Kilburn High Road and partial footpath closure on Greville Road

*Dates mentioned are subject to change, we will provide updates at hs2.org.uk/in-your-area/

Kilburn High Road diversion route

Weekend Full Road closures - 13/07/24, 20/07/24, 27/07/24

How can I travel through the area?

Travelling by bus

Kilburn High Road station (Stop W and X) will be closed for the duration of our works. The nearest bus stops for bus routes 16, 98, N32 and N98 are Quex Road (Stop N) and Kilburn High Road (Stop P).

Temporary bus stops will be available in a safe location designated by TfL, in the vicinity of the Marriot hotel & Tollgate Gardens

Travelling by car

To help us maintain traffic flow on the road network, we have agreed a diversion route with all three Local Authorities and Transport for London.

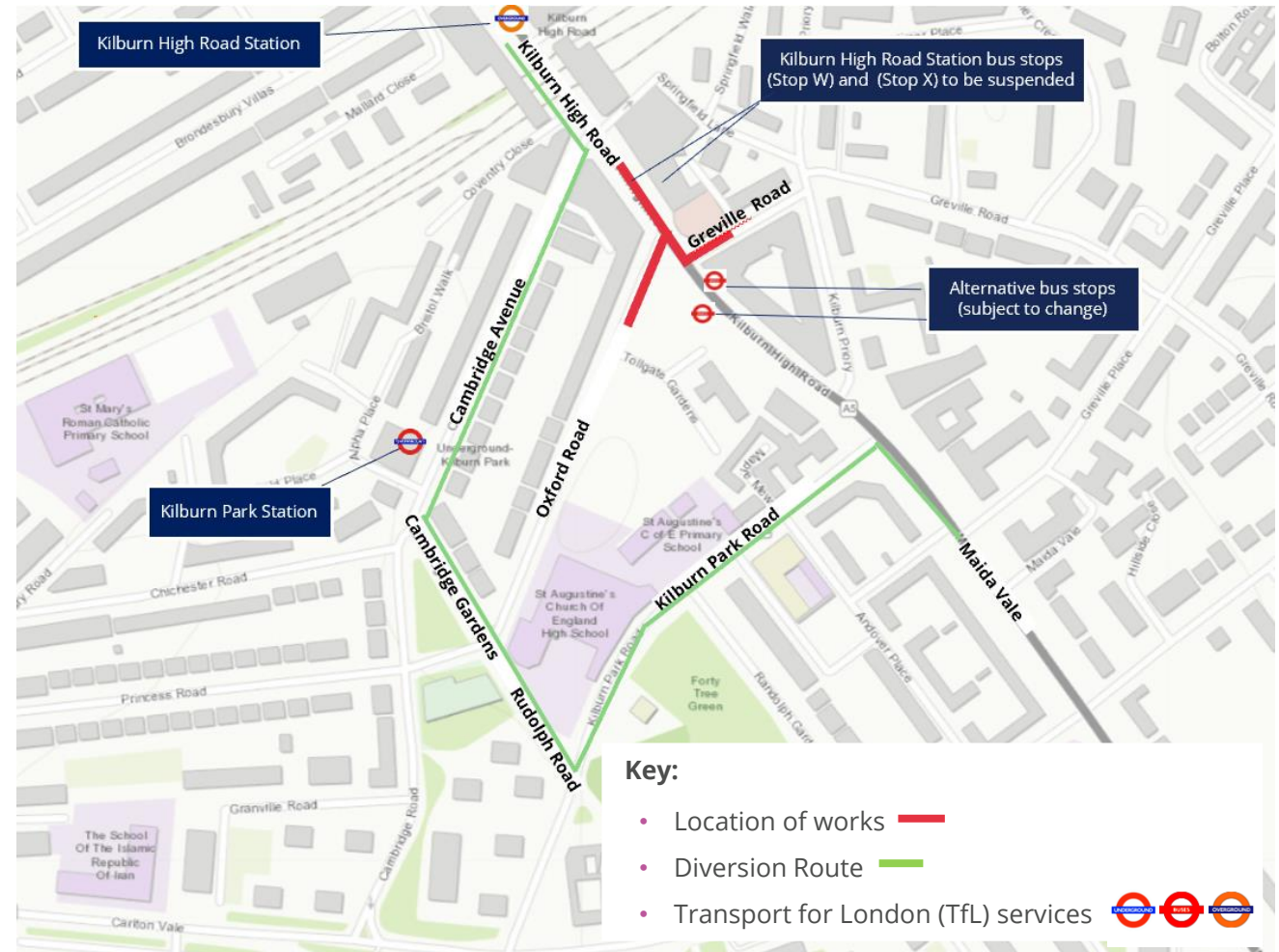
The full diversion route is shown on the map

Travelling by bicycle

Cyclists will be free to use the diversion route on the map

Travelling by foot

Pedestrians will be able to walk around the road closure. A clearly signed diversion route will be available



*Dates mentioned are subject to change, we will provide updates at hs2.org.uk/in-your-area/

Measures to minimise disruption

Noise and Vibration

Noise levels are expected to be highest during excavation which will be taking place:

- During the day throughout the gas upgrade works

Noise will be managed through:

- Selective plant & equipment
- Acoustic blankets
- Equipment will be switched off when not in use
- Monitoring logs will be kept

Once excavation is complete, noise will be significantly reduced and is not expected to be louder than usual background levels.

Lighting

- All lighting will be low level and within the site focusing away from residential areas
- Lighting will be turned off when staff are not on site

Dust

- Damping down / screening
- Daily dust logs
- Stockpiles will be sheeted, and kept away from local receptors
- Vehicles entering / leaving site will not be overloaded

Future tunnelling works: Twin-bore Euston Tunnel



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.

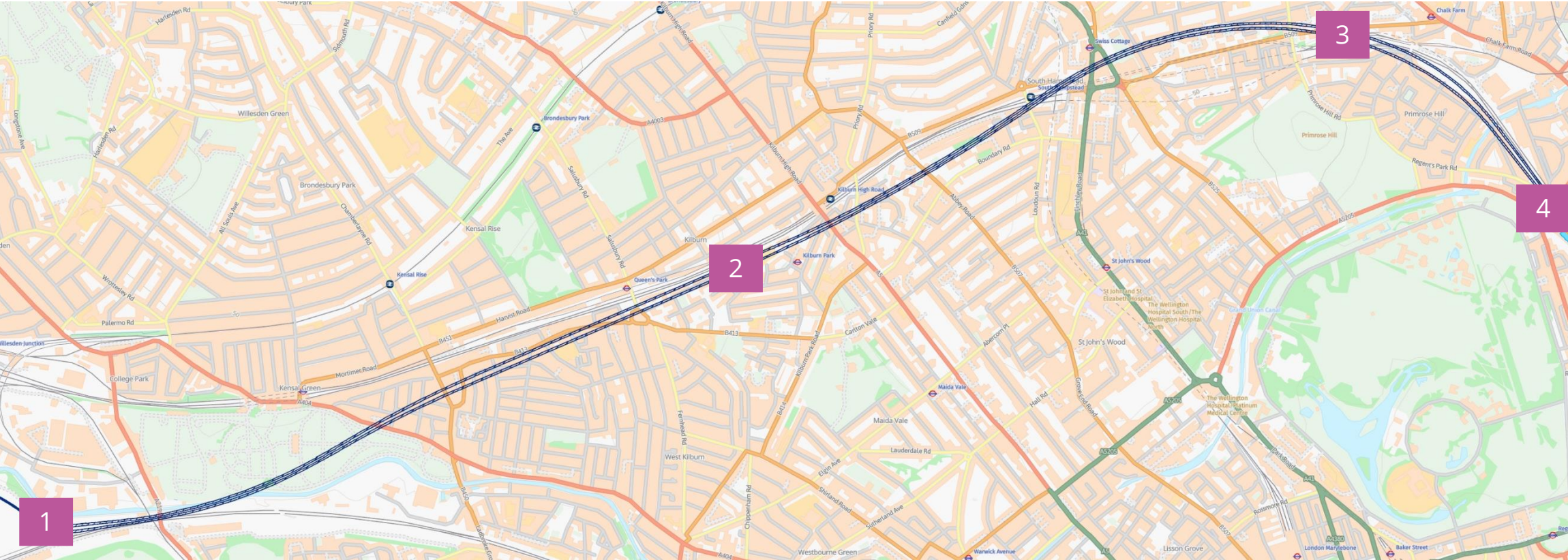
- Twin-bore Euston Tunnel
- 1

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*
TBM's will be delivered	From summer 2024*
Adelaide Road and Canterbury Works Vent Shafts will be brought to a safe pause	Spring/summer 2024*
TBM's 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/in-your-area/](https://www.hs2.org.uk/in-your-area/)

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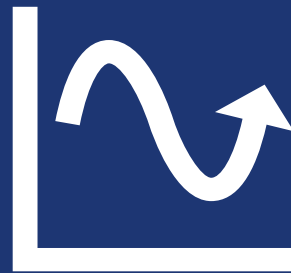
Euston Approaches Construction Update

July 2024

Design engagement for the Euston Portal headhouse



Ground movement assessment (GMA)



Assess



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 properties that might be impacted 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

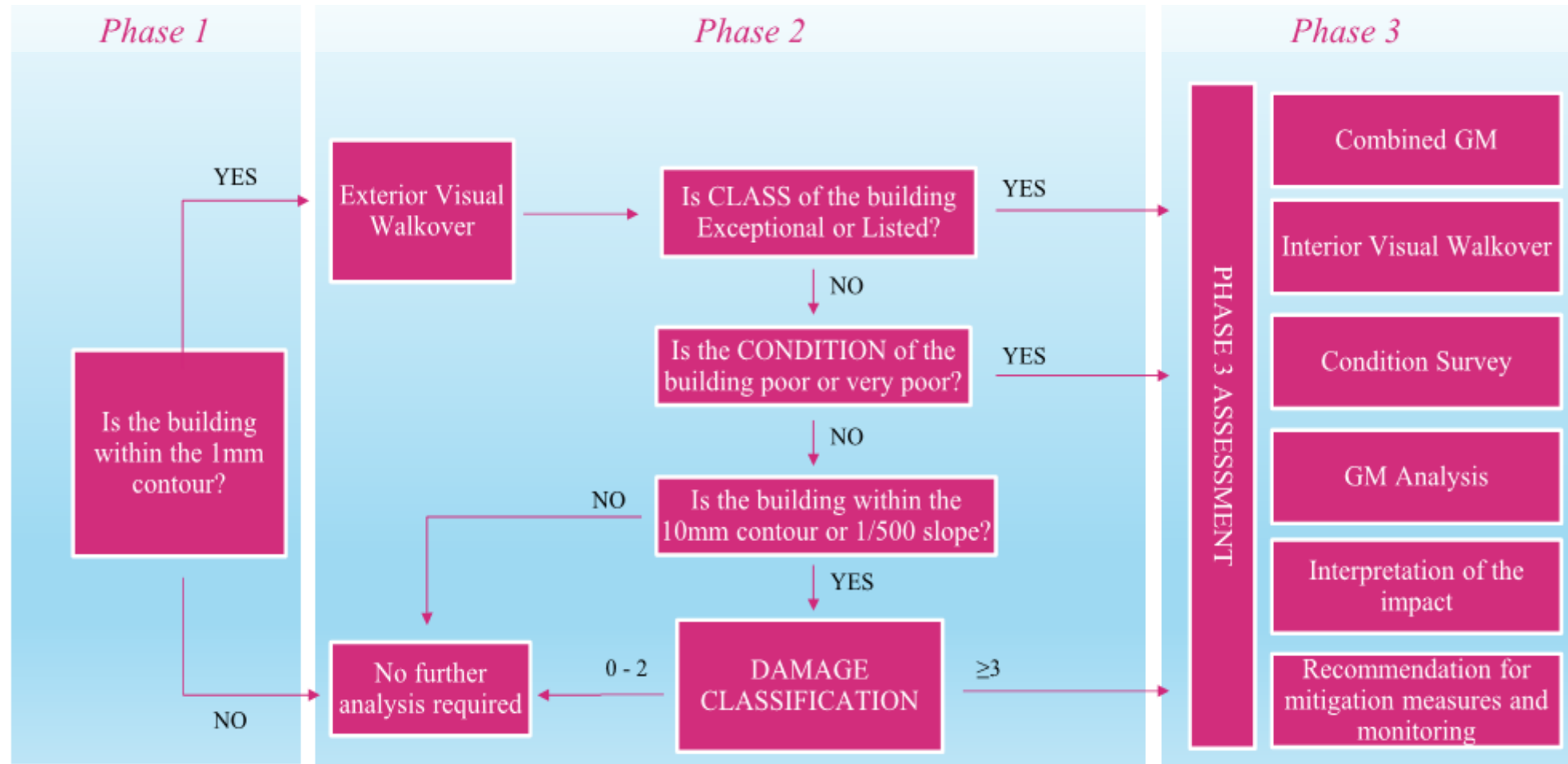
- If you are concerned about damage to your property resulting from our works you can contact us
- We will carry out a post-condition survey after the works if you believe damage has occurred as a result of our works



Damage Categories (Burland scale)

Category of damage (DC)	Normal degree of severity	Description of typical damage (ease of repair is underlined)	Crack width (mm)
0	Negligible	Hairline cracks	< 0.1
1	Very slight	<u>Fine cracks which are easily treated during normal decoration.</u> Damage generally restricted to internal wall finishes. Close inspection may reveal some cracks in external brickwork or masonry.	0.1 to 1
2	Slight	<u>Cracks easily filled. Re-decoration probably required. Recurrent cracks can be masked by suitable linings.</u> Cracks may be visible externally <u>and some repointing may be required to ensure weathertightness.</u> Doors and windows may stick slightly.	1 to 5
3	Moderate	<u>The cracks require some opening up and can be patched by a mason. Repointing of external brickwork and possibly a small amount of brickwork to be replaced.</u> Doors and windows sticking. Service pipes may fracture. Weathertightness often impaired.	5 to 15 or a number of cracks greater than 3
4	Severe	<u>Extensive repair work involving breaking-out and replacing sections of wall, especially over doors and windows.</u> Windows and door frames distorted, floor sloping noticeably ¹ . Walls leaning ¹ or bulging noticeably, some loss of bearing in beams. Service pipes disrupted.	15 to 25 but also depends on number of cracks
5	Very severe	<u>This requires a major repair job involving partial or complete rebuilding.</u> Beams lose bearing, walls lean badly and require shoring. Windows broken with distortion. Danger of instability.	Usually > 25 but depends on number of cracks

GMA Phases



Understanding ground movement assessments

- SCS have been undertaking a programme of detailed investigations to understand our impact on Third Party Assets
- We have been doing this for some time, alongside the design of the new infrastructure
- We use tried and tested methods to assess the effects of ground movement
- Our method has been used on similar large-scale subsurface projects such as Jubilee Line Extension, Channel Tunnel Rail Link, and Crossrail
- We use a 3 phased and conservative approach that increases in detail at each phase
- **Phase 1:** empirical ground movement predictions resulting from the construction works to identify limits of the area to consider
- **Phase 2:** studies of ground movement at buildings within 10mm contour
- **Phase 3:** these studies are the most detailed, and consider specific geometry, features and condition of the building
- Any buildings at risk of damage category 3 (DC3) damage on Burland scale, along with all “exceptional” structures and listed buildings, automatically qualify for Phase 3 studies
- Inspections for Assessments (visual structural surveys) feed into the Phase 3 settlement assessments

Mitigation Strategy



Monitor

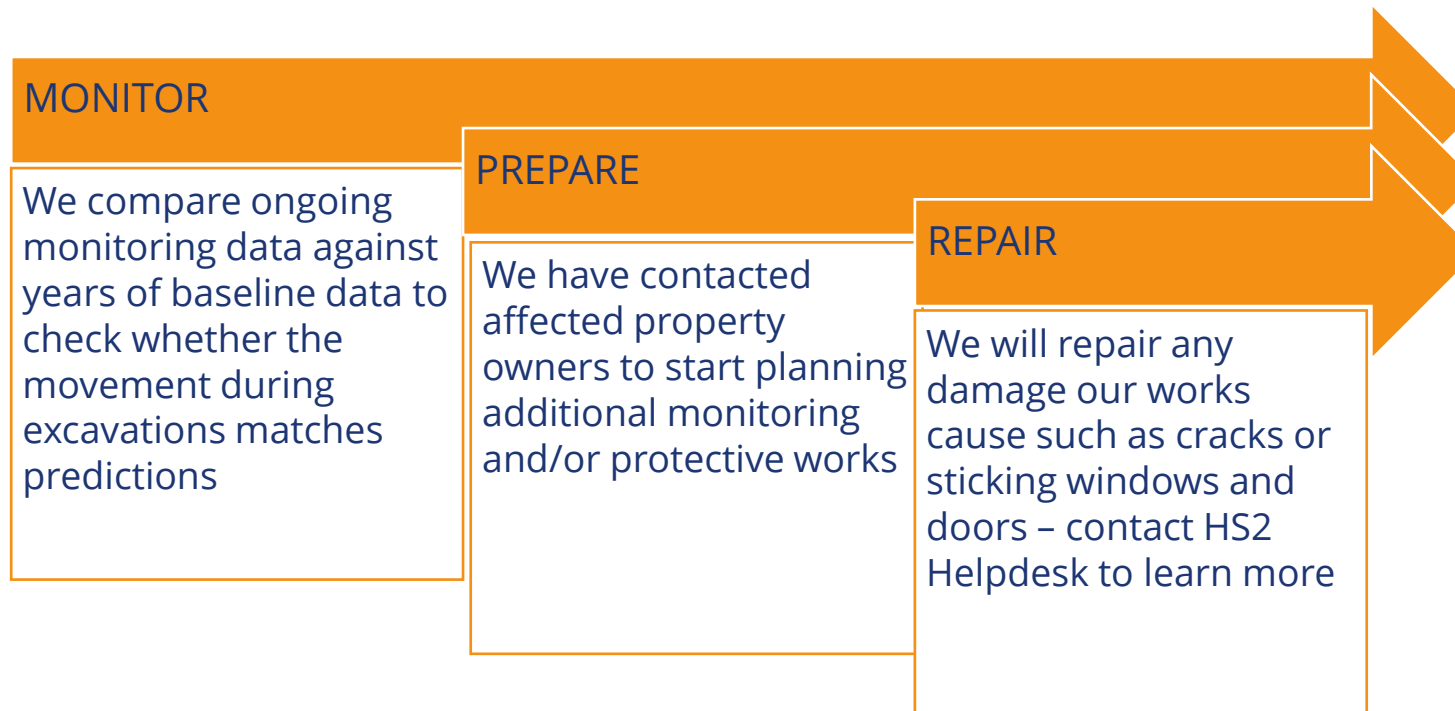


Protective works before major excavations

Major excavations increase ground movement in the surrounding area.

We gather extensive information about buildings and other structures next to major excavations as we design and plan our works to limit the impact on these structures.

We have identified a small number of buildings which require extra monitoring or protective works before we begin major excavations in the Euston Approaches and are now in touch with the property owners to discuss this.



How do we manage the risks?

1. Identify the assets we are protecting
2. Assessing and the establishing actual condition of assets
3. Management of underground construction risk
4. Designing & installing appropriate mitigation for the assets
5. Monitoring assets using instrumentation & monitoring
6. Dealing with third party damage claims



What is Instrumentation and monitoring?

- We use geospatial monitoring which is the discipline whereby deformation movements of structures are quantified over time.
- This is particularly important when structures are within the zone of influence of a construction activity that is likely to induce deformation movements.
- The ground moves naturally with the change in seasons, although other factors such as excavations can cause additional ground movement to occur.
- It is standard practice to monitor those buildings closest to construction works before, during and after construction to monitor the impact of any construction-related ground movement.
- We gather extensive information about buildings and other structures next to major excavations and tunnels as we design and plan our works to limit the impact on these structures.
- We have installed over 5,000 monitoring sensors across Euston Approaches alone, to produce accurate and precise deformation data for bridges, tunnels, rail tracks, buildings and retaining walls.

Why Instrumentation and Monitoring?

Design verification: to confirm that the behaviour of the ground and the works are as predicted and in accordance with the design assumptions and to therefore verify that the design is appropriate;

Asset protection: monitor ground movements and third-party assets to demonstrate compliance with the requirements of the specifications and any agreements with third parties;

Impact Assessment: monitor short- and long-term ground and groundwater movements and allow comparison of actual movements with trigger limits;

Control of construction works: to collect and provide data which inform decisions made by the Shift Review Group (SRG) as part of construction control, such as ground support, construction sequences, methods and advance rates;

Assurance: provision of assurance to third parties that the impacts of construction are as predicted and acceptable;

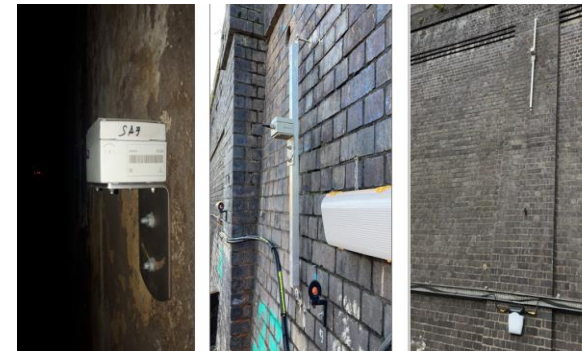
Risk management: to provide data which may be used to trigger pre-planned contingency actions, to control risks associated with the effect of the works when predetermined levels are reached;

Legislative compliance: to provide evidence in support of a safe system of work for the workforce and third parties.

Typical examples of monitoring equipment

Monitoring instruments to carefully track building movements may include (but not limited to):

- Settlement Levelling (Manual)
- 3D Prisms Monitoring (Manual/Automated)
- Tiltmeters (Automated)
- Patch scanning (non-intrusive)
- Levelling studs and bolts
- Piezometers
- Inclinometers
- Distometers





Record



Protect



How do we assess and design?

- To best understand a particular property, we may complete the following:
 - Desktop research and analysis
 - Inspection for Assessment & Pre-Construction Condition Survey
 - Utility surveys
 - Property scans
 - Heritage engineer property visits (where applicable)
 - Ground investigations such as trial pits and boreholes
- These surveys/visits help us develop our knowledge of the building, and feed into ongoing analysis of our impacts, and whether your property needs any preparatory work or mitigation ahead of our major excavations nearby
- Where required we will produce a 'desktop structural appraisal' and share this with residents
- We undertake any surveys required to further inform the design of protective measures, reducing the risk of encountering unknowns during the works that could extend disruptive periods
- We will undertake monitoring of the area during excavation, including some specific, targeted building monitor, to confirm that ground movements are in line, or lower than, predicted movements
- Monitoring will increase closer to the start of our major excavations and tunnelling programme

Physical investigations (intrusive surveys)

Local opening-up work (intrusive surveys) may be required to better understand structural details of the building and enable our consultants to assess the predicted response to ground movements.

The surveys will be designed to target locations that will enable us to:

- Confirm the structural make-up of main structural elements, and if/where they have been historically altered (i.e primary masonry walls being opened up)
- Confirm the floor structure, build up, primary member orientation, and bearing details where possible
- Confirm coursing and bonding of brickwork between walls which is critical in how the masonry structure will perform
- Scans to detect utilities and metal within the wall to identify any hazards
- Ground investigation using trial pits and boreholes

Typical examples of the equipment used for ground investigations

- Ground investigation involves inspecting the earth in an area.
 - It includes taking thin samples or 'cores', and sometimes inserting small monitoring equipment below the surface.
 - This helps us identify what the ground is made of in a particular place and how it acts
 - We identify where the natural groundwater level is, as this can affect how the ground behaves
- This is part of our work to make sure we understand how the ground will respond to our major excavations over the next few years



Window sampler



Borehole rig

Examples of how we assess structures



Making good after our investigations

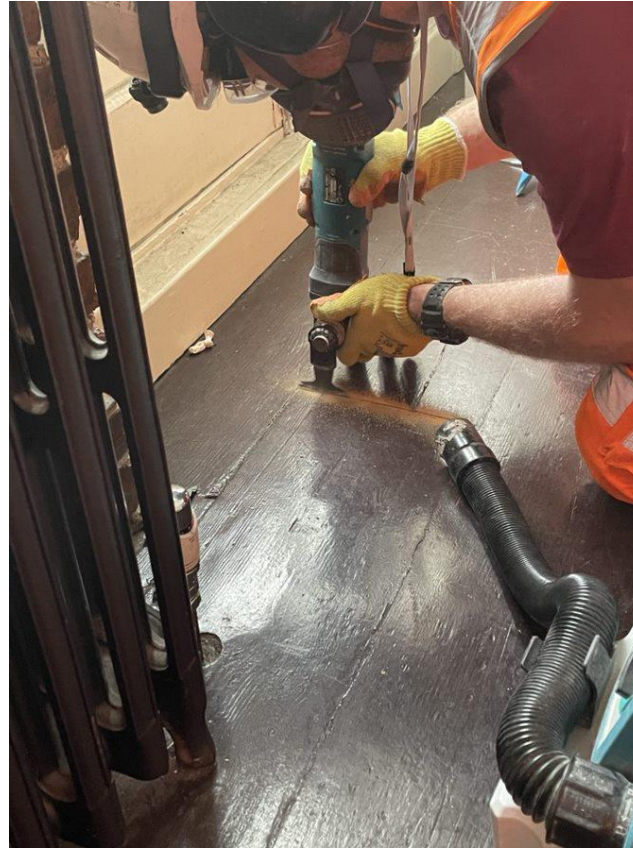
We will ‘make good’ the areas where we have conducted any intrusive surveys to leave the area looking as close as possible to how it did before. We use a team of experienced contractors which includes heritage experts to complete our reinstatement works following these surveys.

Examples of making good:

Area	Approach
Internal walls	Plasterboard levelled off with quick drying plaster. Paint to match with the existing wall colour.
	If the paint does not meet exactly, it may be necessary to paint more of the wall surface to blend in
External walls	Use the wall rendering material to cover the exposed brickwork (24hr setting time)
	Paint to match with the existing wall colour
Ceilings	Re-plaster to match the existing ceiling.
	Paint to match with the existing wall colour if required

Examples of our making good #1

Floorboards/ceilings



Examples of our making good #2

Wall finishes





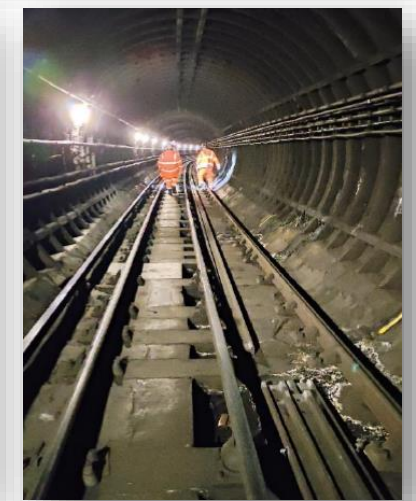
Protect



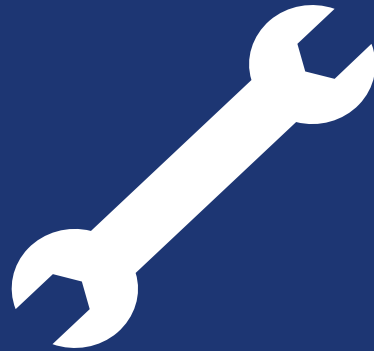
Protective measure design

- The process to protect Third Party structures follows a standard process, aligning with the public information available under the HS2 Information Paper: [C3: Ground settlement](#)
- Our Phase 3 Ground Movement Assessment work produces recommendations as to whether monitoring and/or protective measures may be required to limit impacts
- Where a building falls into Damage Category 3 or higher, we consider the requirement for protective measures.
- We also do this if we are aware of specific issues or sensitivities specific to a particular building, such as its heritage significance
- We completed a number of surveys on the individual buildings to inform our mitigation design
- Where protective measures are implemented, the associated damage category for the building will be reduced below Damage Category 3 (DC3).
- Mitigation measures are not typically required for buildings with a damage category less than DC3. Instrumentation and monitoring may be specified, and repairs may be required.
- We will provide temporary rehousing during intrusive internal property surveys and the installation of the protective measures where required in line with the [Prolonged disruption and compensation scheme](#)

Examples of assets we are protecting across the route



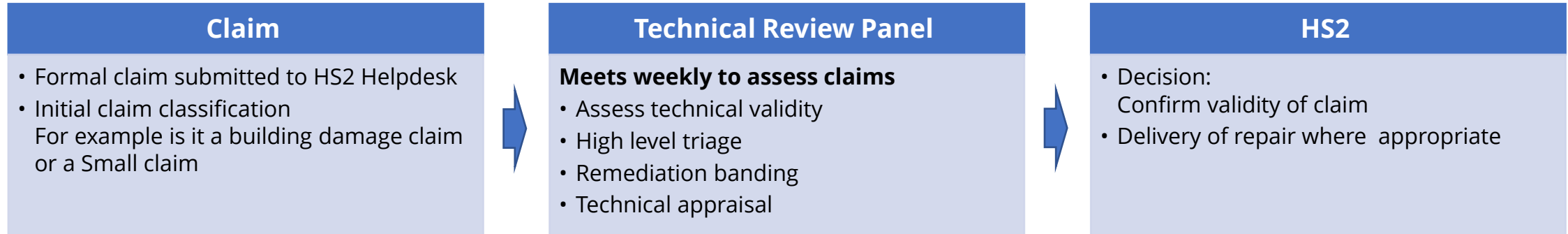
Damage claims process



Repair



Third Party Damage Claims



The panel is comprised of specialists from:

- Asset Protection
- Tunnel Engineering
- Instrumentation & Monitoring
- Noise & Vibration
- Consents & Engagement
- Design House
- Loss Adjustors / Legal / Insurance

Settlement deeds

What is a settlement deed and who can have one?

- A settlement deed is a formal legal agreement between you (the property owner) and HS2, which you may find useful if selling your property or changing insurers for example
- We will put right any damage we cause to your property whether you have a deed or not. This is a legal commitment under the HS2 Act
- We offer property owners a Settlement Deed if their property is within 30m of tunnels or other major excavations (tunnels, retained cuttings, shafts and boxes) which are 3m or deeper
- This records the protection we provide for your property in a formal document, although you don't need a deed to benefit from the protection, you are covered by the High-Speed Rail Act
- Owners that enter into a settlement deed will receive a **settlement assessment report (SAR)** in advance of the major excavation works. The **SAR** will include the ground movement assessment information specific to property.
- If your property is damage category 3 or higher, you will automatically receive the **SAR**.

Settlement deeds

How do you request a Settlement Deed?

- We have sent the eligible properties an offer letter in 2020. The offer letters will be resent to those who have not taken up the offer ahead of major excavations and tunnelling in 2026
- Should you wish to request a Settlement deed before the offer letter is resent before the start of the major excavations and tunnelling, please email property@scsrailways.co.uk

How do you request an Owners engineer?

- The Owner's engineer is only available to properties which have a **deed** in place in Damage category 3 and above
- The Owner has 25 working days from the date on which the Settlement assessment report is issued to request the owner's engineer
- A list of engineers can be found on the Institute of Civil engineers (ICE) website in the Register of Ground Engineering Professionals listing
- This process will also be confirmed within the cover letter which will accompany the Settlement assessment report

Granby Terrace bridge (GTB) utilities



GTB utilities works

Works on Park Village East/Stanhope Street junction

2 Apr to 28 Jun 2024 – Completed 17 May 2024

- Ducts installed in the carriage way and footpath on Stanhope Street
- 2-way traffic lights facilitated these works
- Pedestrian ramps in place on both ends of the traffic management

These works were completed 6 weeks ahead of schedule

For more information on the SCS JV and MDjv works in the area please follow the link [here](#) to our coordination map which is updated weekly



Hampstead Road utilities Phase 2



Stage 2 – 3 Jul to 30 Jan 2025

During this phase of works we will install a gas main connection and continue to install the utilities ducts.

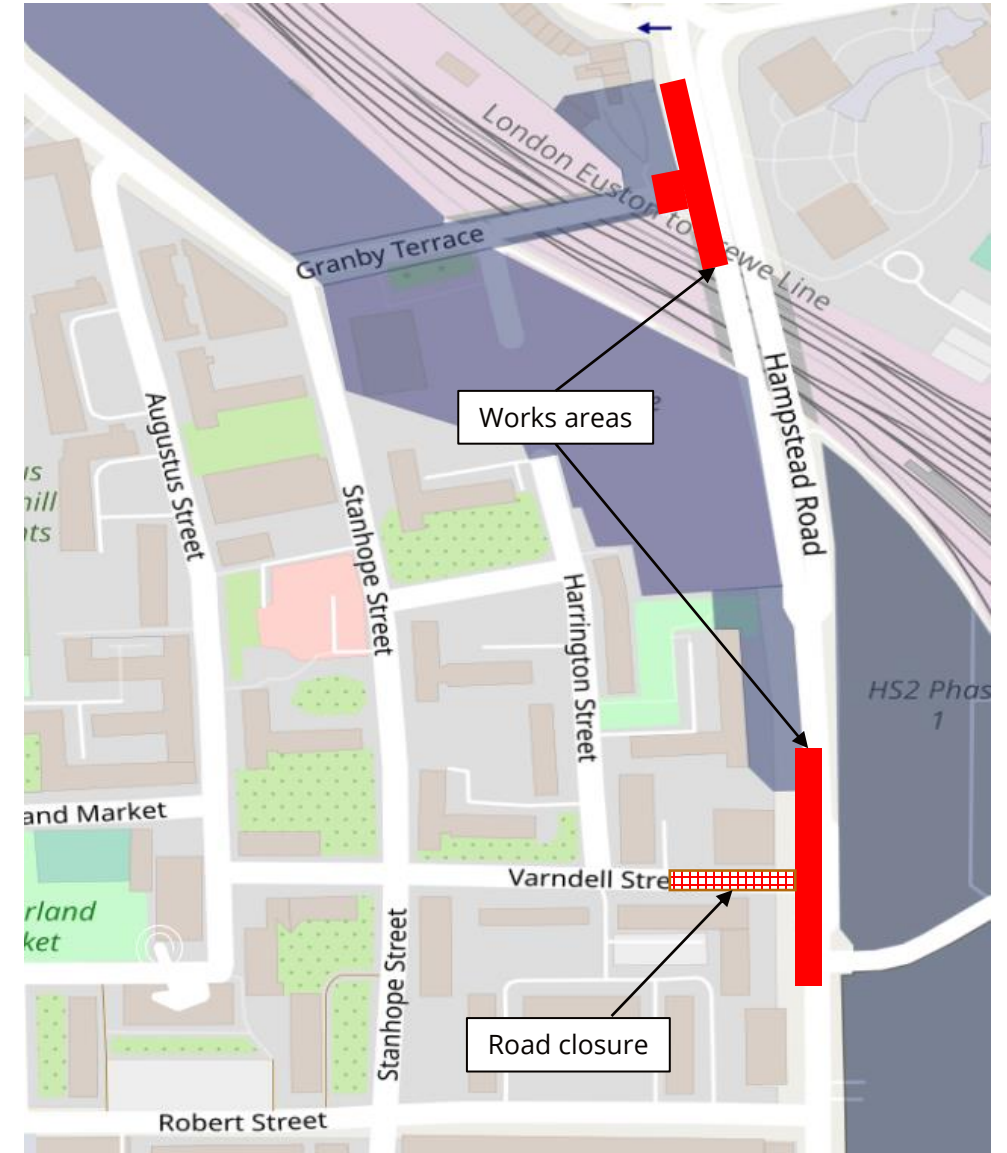
Works on Hampstead Road at Granby Terrace Bridge 11 Jul to 22 Oct

- We will extend the northbound cycle lane closure toward Mornington Crescent

Works on Hampstead Road near Varndell Street Mid Sep to 30 Jan 2025

- We will close the northbound lane on Hampstead Road between Varndell Street and the start of our site hoarding
- We will close Varndell Street during these works
- The pedestrian crossing on Hampstead Road will move south of Cardington Street

The dates provided are indicative and subject to change



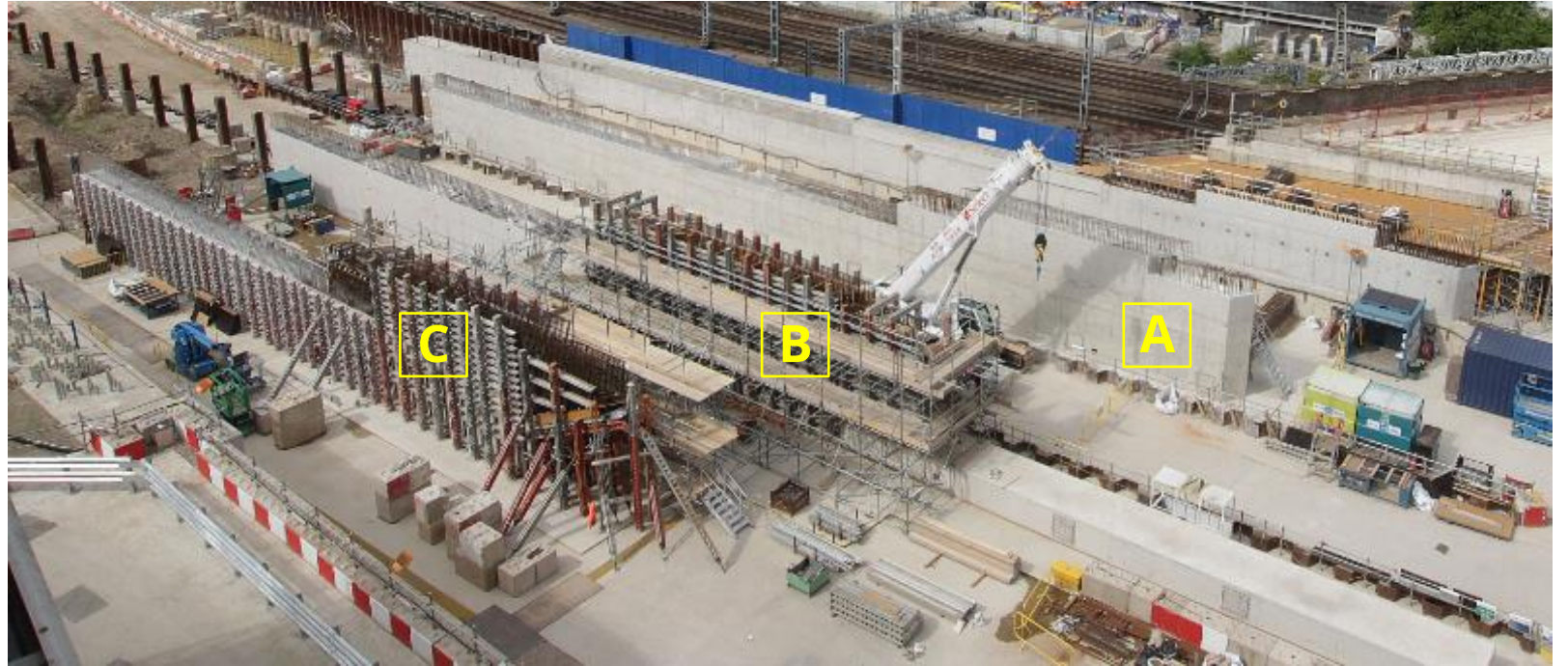
Granby Terrace bridge extension

1 June to December 2024



Granby Terrace bridge extension June update

- We will complete the construction of the support walls B & C
- We will continue to construct the temporary structure (falsework) between the existing bridge and support walls A to C. The falsework will support the existing Granby Terrace bridge during the bridge deck construction
- We will install the permanent horizontal props between the support walls
- Impacts may include extended hours, weekend or overnight works during Network Rail possessions



The bridge will remain closed until HS2 works in Euston Approaches are finished as it is not safe for vehicles or pedestrians while major construction works continue on and around the bridge.

Surma Community centre event – 27 June 2024

- We held a community engagement event at the Surma Centre on 27 June 2024
- The event catered specifically to our Bengali speaking residents within the area
- The promotional and presentation materials were translated into Bengali and presented by a Bengali speaker
- The event was attended by 23 residents who were provided with an overview of our works in the area
- We will be holding similar events with these residents in the future



HS2

8. Community Questions/AOB

Chair

- Questions received in advance of the meeting
- Questions not related to agenda items
- Questions relating to agenda items not dealt with in the time allocated.

We would welcome your feedback about this meeting. You can provide this by scanning the QR code or clicking [here](#)

Many thanks



HS2

Meetings dates for 2024

Tuesday 24 September

Thursday 28 November