









# **Euston Approaches Construction Update**

**July 2023** 

Web update

# **Areas within the Euston Approaches**

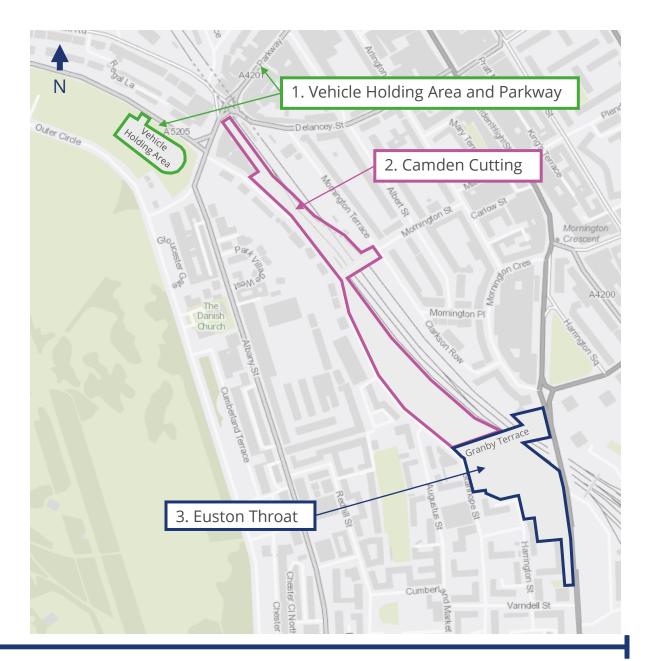
Skanska Costain STRABAG (SCS) is the HS2 main works contractor responsible for building the section of HS2 between Parkway and Hampstead Road.

This area is known as **Euston Approaches**.

We have divided the Euston Approaches worksite into **three** areas to help us communicate which works are the closest and most relevant to you.

#### 1. Vehicle Holding Area and Parkway

- 2. Camden Cutting between Parkway and north of Granby Terrace bridge
- · Camden Cutting north
- Mornington Street bridge
- Camden Cutting south
- 3. Euston Throat Granby Terrace bridge to Hampstead Road
- Granby Terrace bridge
- Euston Throat main site
- Hampstead Road bridge



### Engagement – summer 2023 to spring 2024

#### **Summer 2023**

Construction Update web update – tunnelling focus

Tunnelling meetings\* with directly affected property owners

Quarterly pop-up



#### Autumn 2023

Newsletter

Construction Update online events – tunnelling focus

Construction Update - Rooftop visits

Tunnelling meetings\* with directly affected property owners

Quarterly pop-up



#### Winter 2023

Tunnelling meetings\* with directly affected property owners

Quarterly pop-up



#### Spring 2024

Euston Portal Headhouse 'involve' engagement

Construction Update web update – tunnelling focus

Tunnelling meetings\* with directly affected property owners

Quarterly pop-up

#### How we keep you up to date with our works

Workshops and site walks on key works

Pop-ups

Community notices

Factsheets and FAQs

121 meetings

Construction Update events

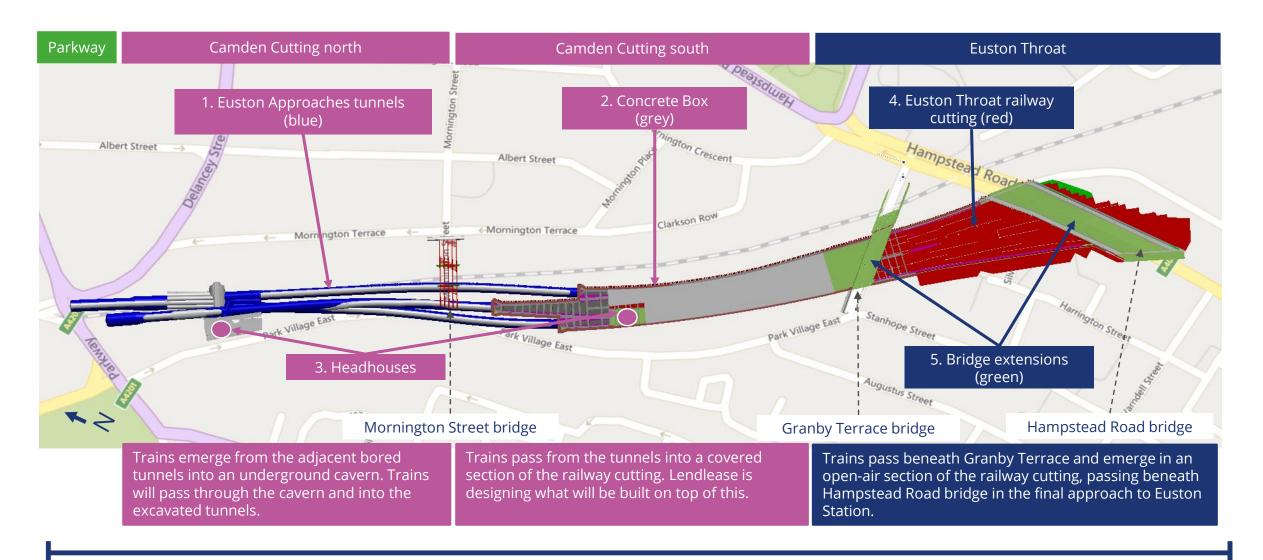
Newsletters

HS2 Helpdesk

\* Tunnelling to start in 2026

# **Euston Approaches - general updates**

### Structures and major excavations



### Major excavations programme

(Tunnels, concrete box, cavern, shafts and railway cutting)

#### 2023

- Tunnelling design finalised
- Protective property works

   property-specific design
   under way (ongoing
   meetings with property
   owners)
- Protective property works

   mitigations start in
   summer

#### 2024

- Protective property works

   property-specific design
  continues
- Protective property works– mitigations continue

#### 2025

- Site prep for tunnelling
- Site prep for concrete box south of Mornington Street bridge

#### 2026

- Start 24/7 cavern shaft and tunnels in Camden Cutting north
- Start 24/7 excavation for concrete box south of Mornington Street bridge
- Start railway cutting between Granby Terrace and Hampstead Road
- Start removing excavated material by lorry overnight

#### **Ongoing**

Monitor existing ground movement
Surveys and investigations of buildings closest to cavern and tunnels
Monitor and repair any damage, if caused by our works (contact HS2 Helpdesk)

### Protective works before major excavations

Major excavations, such as tunnelling, increase ground movement in the surrounding area. This movement can cause damage to the existing railway, bridges and buildings. 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 will also always repair any damage proven to be caused by HS2 works.

Damage may be structural, such as large cracks or movement to foundations or underground utilities. Damage may also be cosmetic such as doors or windows sticking, or cracks in plaster.

We have identified a small number of buildings which require extra monitoring or protective works before we begin major excavations.

We are in contact with the affected property owners.

If you would like to learn more, please read our FAQ on tunnelling. <u>FAQ - Major excavations and tunnelling in</u> <u>Euston Approaches - July 2023</u>

#### **MONITOR**

We compare ongoing monitoring data against years of baseline data to check whether the movement during excavations matches predictions

#### **PREPARE**

We have contacted affected property owners to start planning additional monitoring and/or protective works

#### **REPAIR**

We will repair any damage our works cause such as cracks or sticking windows and doors – contact HS2 Helpdesk to learn more

If you are concerned your building could be impacted and have not heard from us, please contact **HS2 Helpdesk on 08081 434 434.** 

### Site access

We are working in a narrow worksite, below street-level, between a retaining wall and a live railway.

As our digging and construction areas expand, lorries won't have space on site to make deliveries and collections.

As works progress, we will need to install and use various site accesses.

The Park Village East south lay-by was planned for early 2023 but is now rescheduled until later in the programme.

We will keep you up to date as details become available.

#### **Future site access**

- Lorry lay-by Park Village East south
- Site office and access install
- Mornington Street bridge Network Rail access

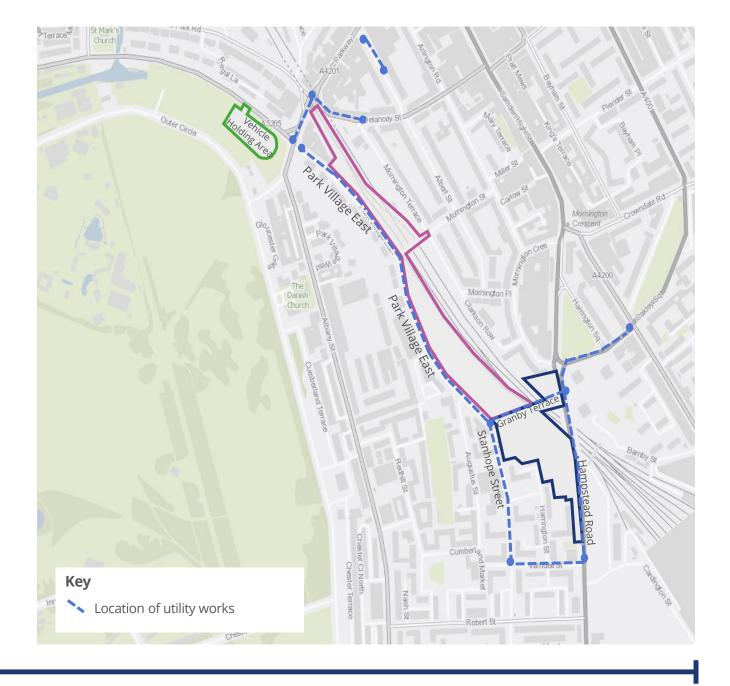


# **Utility works**

We are carrying out utility works on streets surrounding Euston Approaches to

- 1. Connect services to our worksites and future railway infrastructure
- Relocate utilities to avoid clashes with piling, excavations, tunnelling, bridge extensions and other works
- 3. Protect and monitor utilities around major excavation and tunnelling sites so that they can cope with additional ground movement

Parkway utility mitigation works have been rescheduled and will now start in 2025



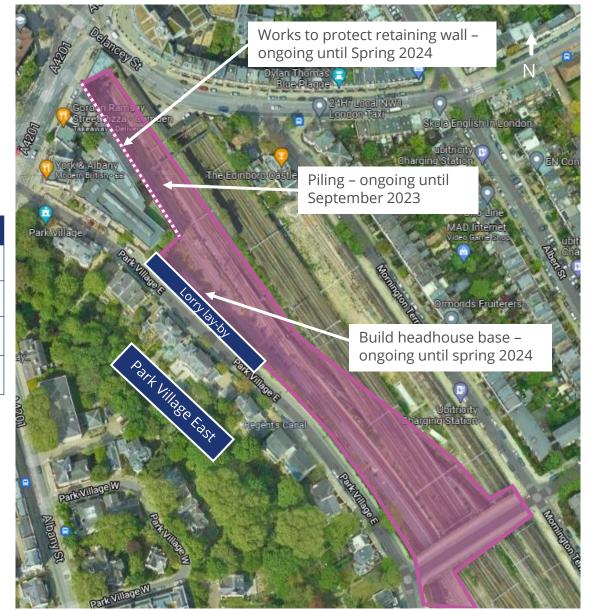
# **Camden Cutting**

### **Camden Cutting north**

#### Jul to Dec 2023

Focus on piling and works to protect the retaining wall ahead of tunnelling and excavation works.

Works in Camden Cutting north	Start	Finish
Piling	Jun 2022	Sep 2023
Works to protect retaining wall at track-level	Nov 2022	Spring 2024
Build the base for the Cavern Headhouse at track-level	Sep 2023	Spring 2024
Protective works to buildings	mid 2023	Ongoing



### **Mornington Street bridge**

#### **Mornington Street bridge closure**

- Mornington Street bridge currently closed for surveys and monitoring
- Access for cyclists and pedestrians maintained
- SCS closed the bridge in December 2022 whilst we monitor the bridge to verify predicted movement. Monitoring data is being factored into the design of the bridge strengthening works.
- HS2 had planned to carry out strengthening works on to the bridge in summer 2023, before tunnelling began in late 2023. We are now working through the detail of the new programme and what this means for Mornington Street bridge.
- We are in discussions with Network Rail about reopening the bridge and will update residents in late July.

We realise the importance of opening the bridge and we are exploring all options to open the bridge sooner than planned.

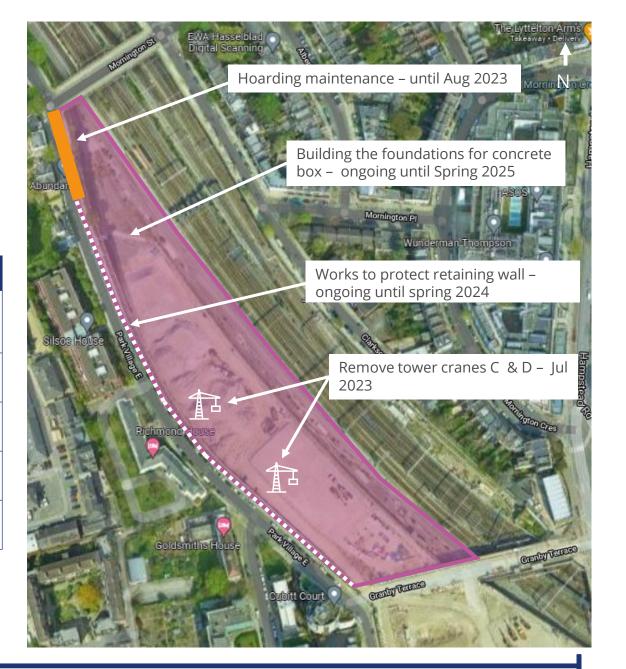


### **Camden Cutting south**

#### Jul to Dec 2023

Focus on works to protect the retaining wall ahead of tunnelling and excavation works

Works in Camden Cutting south	Start	Finish
Track-level works to build foundations for concrete box	Ongoing	Spring 2025
Track-level works to protect retaining wall	Nov 2022	Spring 2024
Hoarding replacement	Jan 2023	Aug 2023
Remove tower cranes C & D	Jul 2023	Jul 2023
Euston Portal headhouse initial design	Spring 2024	



### **Euston Throat**

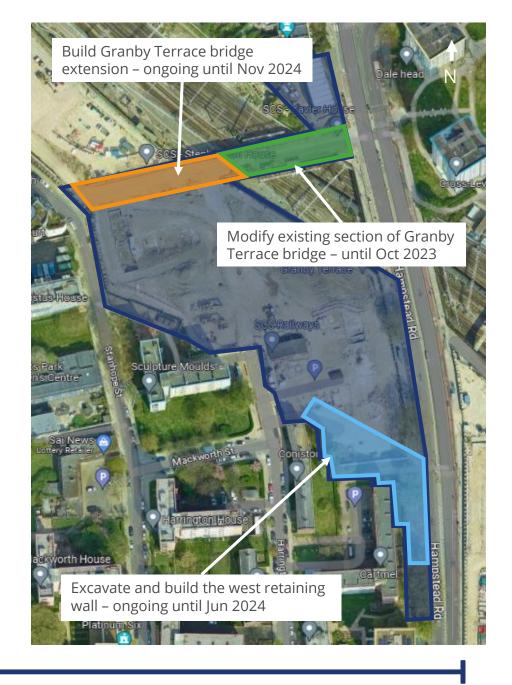
### **Euston Throat**

#### Jul to Dec 2023

Focus on constructing the west retaining wall in front of Regent's Park Estate and extending Granby Terrace bridge

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

Upcoming works in the Euston Throat	Start	Finish
Modify existing section of Granby Terrace bridge	Feb 2023	Oct 2023
Excavate west retaining wall	Jul 2023	Dec 2023
Construct concrete slab (top of the west retaining wall)	Sep 2023	Jun 2024
Build Granby Terrace Bridge extension	Ongoing	Nov 2024



# **Works on Hampstead Road**

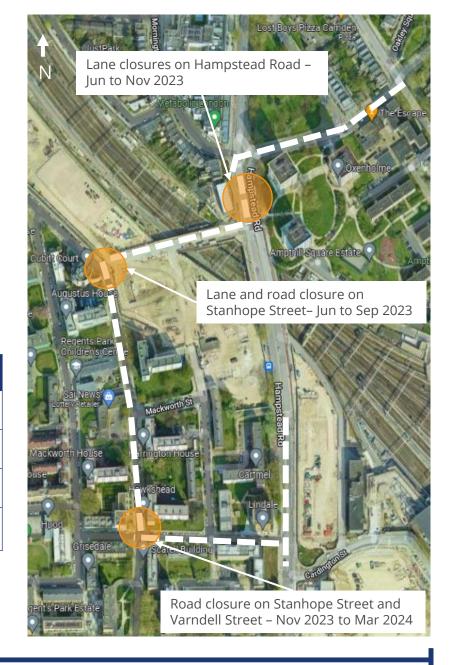
#### Jul to Dec 2023

Focus on diverting utilities away from Hampstead Road, to clear our working area before we extend the bridge.

We will continue a range of road, lane and footpath closures on Hampstead Road and neighbouring streets to complete these works (along white dotted line).

Once we have extended the bridge, we will put the utilities back on Hampstead Road.

Traffic impacts	Start	Finish
Lane closures on Hampstead Road	Jun 2023	Nov 2023
Lane closure on Stanhope Street	Jun 2023	Aug 2023
Road closure on Stanhope Street	Aug 2023	Sep 2023
Road closure on corner of Stanhope Street and Varndell Street	Nov 2023	Mar 2024



# Euston Approaches design

### **Euston Approaches tunnels**

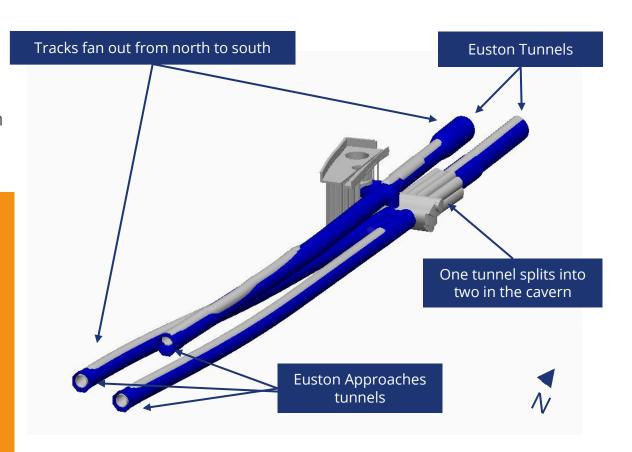
Starting in 2026, we will excavate three tunnels between Parkway and just south of Mornington Street bridge.

- Two tunnels used by trains travelling from Birmingham to London
- One tunnel used by trains travelling from London to Birmingham

#### Why three tunnels?

The tracks in the Euston Approaches will fan out from north to south and cross over to enable trains to access and exit multiple platforms at Euston station.

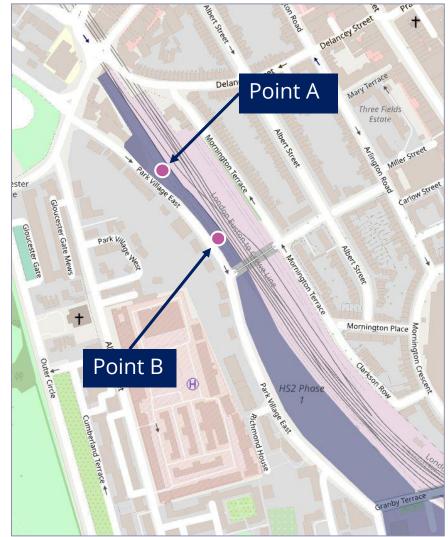
- Two HS2 tunnels, built in neighbouring section extend to just south of Parkway
- One of these tunnels splits into two between Parkway and Mornington Street bridge
- The other tunnel doesn't split (fan out) until south of Mornington Street



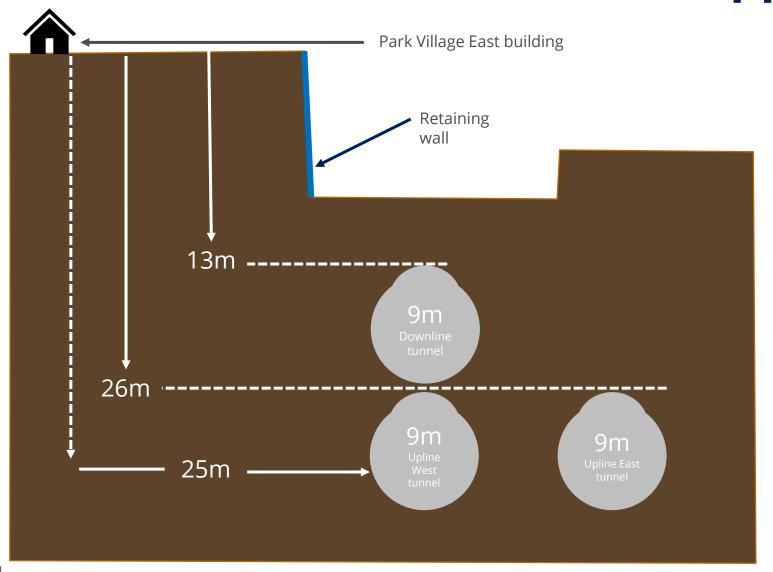
**Euston Approaches Tunnels** 

The following slides give an indication of the depth of our tunnels from street level and distance from Park Village East property boundary.

- Point A Close to lay-by North
- Point B North of Mornington Street bridge



### Point A – cross-cut of Euston Approaches tunnels



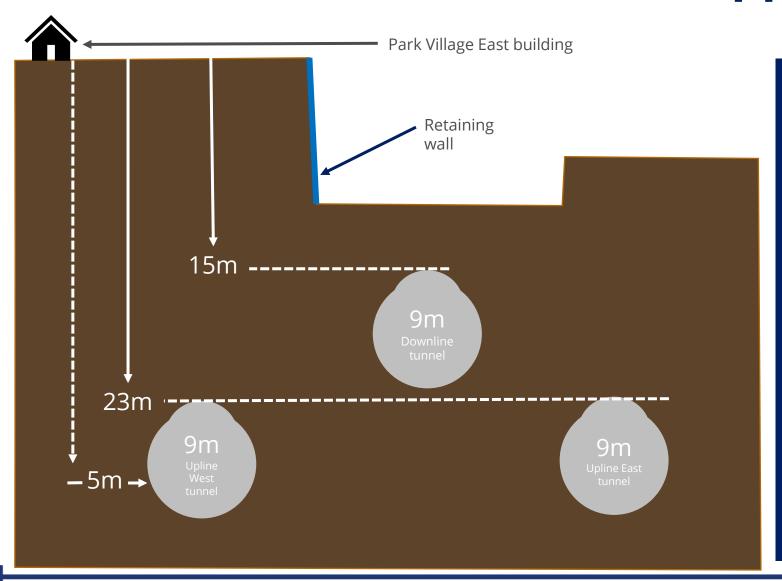
#### Depth of tunnels

- 13m top of the shallowest tunnel (downline tunnel) is 13m below Park Village East street level
- 26m top of the upline East and West tunnels are 26m below Park Village East street level

#### Distance from building

 25m – edge of the nearest tunnel (upline West tunnel) is 25m from building on Park Village East

### **Point B – cross-cut of Euston Approaches tunnels**



#### Depth of tunnels

- 15m top of the shallowest tunnel (downline tunnel) is 15m below Park Village East street level
- 23m top of the upline East and West tunnels are 23m below Park Village East street level

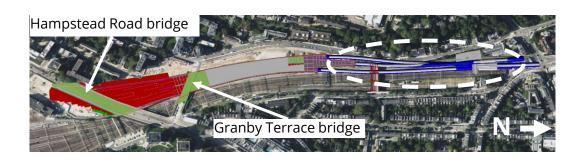
#### Distance from building

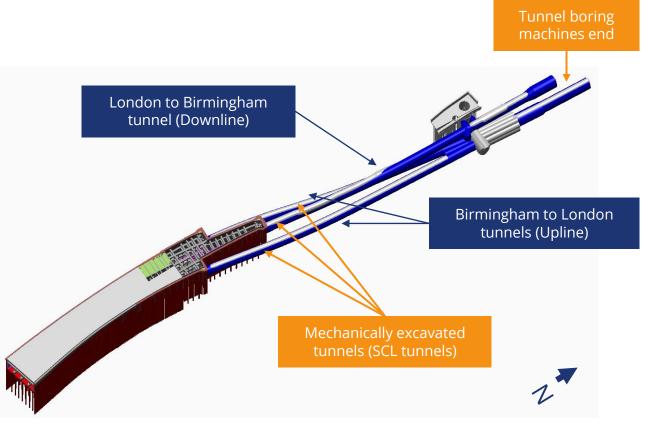
 5m – edge of the nearest tunnel (upline West tunnel) is 5m from building on Park Village East

### **Euston Approaches tunnels**

#### Constructing the Euston Approaches Tunnels

- We are not using a tunnel-boring machine to construct the Euston Approaches tunnels
- We will work on 24/7 shifts to excavate the three tunnels using the sprayed concrete lining method (SCL tunnelling)
- HS2's tunnel boring machines used in the neighbouring section will arrive just south of Parkway junction and be dismantled
- Further details about the construction of the tunnels and how we will manage impacts will be provided well in advance of tunnelling starting in 2026





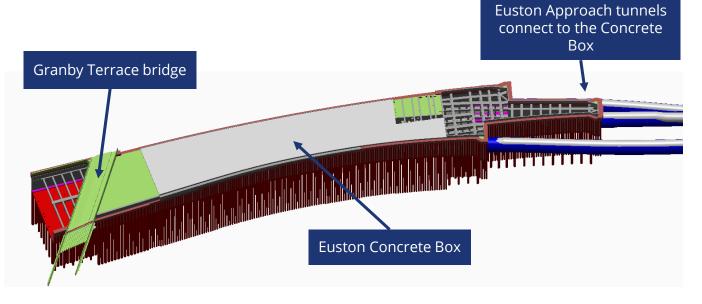
### **Euston Concrete Box**

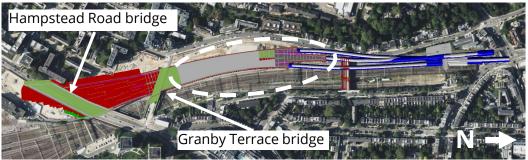
- Covered section of the railway cutting, like an openended box
- Extends from south of Mornington Street bridge to Granby Terrace bridge
- Positioned partly above, partly below ground

#### **Euston Over-Site Development**

The top of the box will provide the foundation for future buildings due to be built above the railway cutting as part of the Euston Over-Site Development. Lendlease is responsible for planning this oversite development.

Find out more about plans for this future development and how to get involved in shaping them at eustonosd.commonplace.is/





### Headhouses

A headhouse is a building located above-ground, which contains rail machinery and provides access to the tracks or tunnels below ground for maintenance or emergencies.

Both headhouses will provide safe access to the tunnels for maintenance and emergency services from Park Village East.

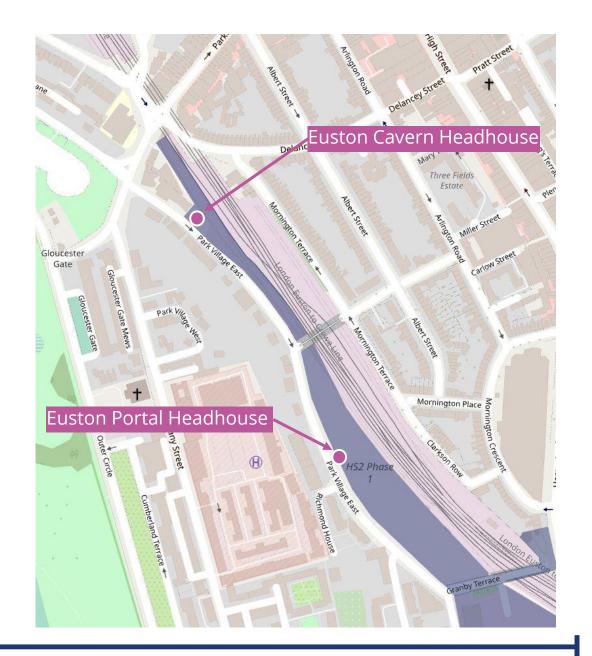
#### **Euston Cavern Headhouse**

- Located above the Cavern Shaft which will be built underground, next to 1 Park Village East
- Planning application was approved in October 2022

Click on the link for the **Cavern Headhouse final design** 

#### **Euston Portal Headhouse**

- To be build on top of the concrete box, where the tunnels connect south of Mornington Street bridge
- Initial design due in spring 2024 we will run online engagement events to gather your feedback on the appearance of the headhouse (location and size are fixed to meet technical requirements)

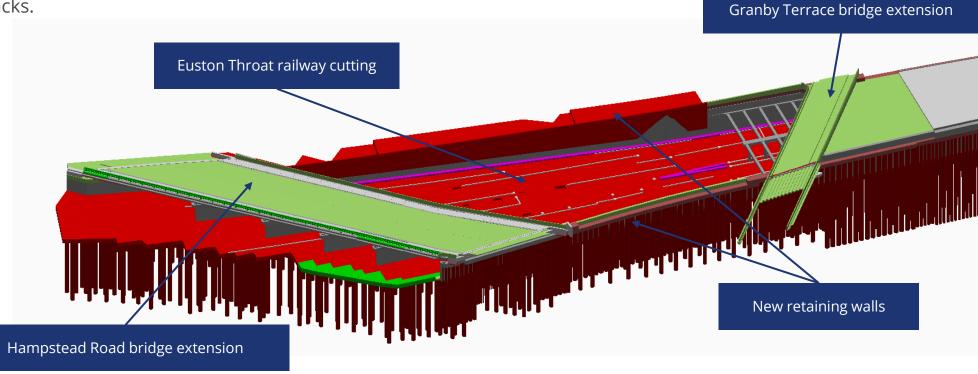


# **Euston Throat Railway Cutting**



We are creating a wider, deeper railway cutting in front of Regent's Park Estate to make way for the new HS2 railway.

There will be two new, parallel retaining walls between Granby Terrace and Hampstead Road bridges to separate HS2 from the Network Rail tracks.

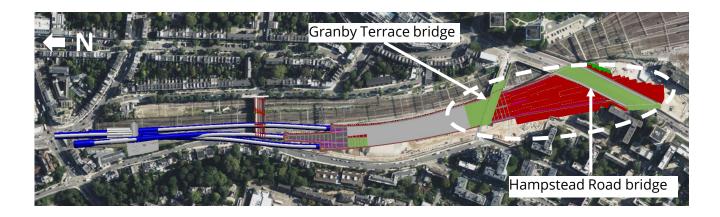


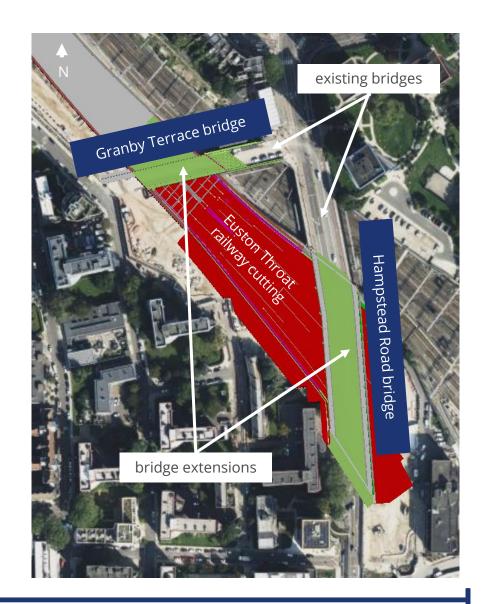
# **Bridge extensions**

We will extend both Granby Terrace and Hampstead Road bridge over the new railway cutting to make way for the HS2 trains to pass beneath.

#### Mitigating construction impacts

- We are carrying out extensive utility diversions to prevent disruption to local services during bridge works
- We will construct a temporary road to reduce traffic impacts while we extend Hampstead Road bridge





### **HS2 Helpdesk**

For all enquiries, compliments or complaints please contact the HS2 Helpdesk

- Freephone 08081 434 434
- Email HS2enquiries@hs2.org.uk

We also encourage you to complete our **feedback form** to help us understand your concerns and ideas for making it easier to live next to major construction.

Scan the code with your phone's camera or QR code reader to open the form in a web page

You can sign up to receive updates about HS2 works in your local area at <a href="https://www.hs2inyourarea.co.uk">www.hs2inyourarea.co.uk</a>

