

SCS FACTSHEET

Piling works at Euston Approaches

February 2021 |

www.hs2.org.uk

High Speed Two (HS2) is the new high speed railway for Britain. Over the next four years we will construct over 2,000 underground piles between Hampstead Road and the northern end of the Euston Approaches to create the foundation for the future railway.

What is piling and why do we need it?

Piles are structures we build or install vertically into the ground to provide strength and support to an above-ground structure or an excavation. Our piles, made of concrete and steel, create safe foundations by transferring the weight of the future structure above into the hardest ground or rock deep underground.

There are various piling methods used in construction and we have chosen the quietest methods available. We will construct auger-bored concrete piles through the Euston Approaches as well as using sheet piling.

Auger boring

Our piles are constructed with a piling rig drilling a deep hole into the ground with an auger (a drill resembling a large corkscrew).

Drilling or boring this way is far quieter than hammering piles into the ground.

A crane then places a steel cage into the hole as concrete is poured in to fill the hole. Once the concrete pour is started, it must be finished the same day to ensure the pile is constructed safely and allowed to set overnight.

To complete concrete pours of this size, we need to work until 10pm most weekday evenings although we will always aim

to finish earlier if possible.

Once a row of piles has been constructed, we break down the exposed concrete until it is even and install a concrete platform, or 'pile cap', on top to tie the structure together and add strength.



Piling works at Euston Approaches

4 November 2020 to March 2024

- 472 piles around Hampstead Road bridge
- 159 piles around Granby Terrace bridge
- 360 piles in the area between Hampstead Road and Granby Terrace bridges
- 984 piles between Granby Terrace and Mornington Street bridges
- 152 piles in the northern most end, near the Euston Cavern
- Piles are up to 50m deep and 1.8m across in width
- A 30m high drilling rig drills holes 40m deep using the quietest methods available
- Cranes lift long steel cages into concrete-filled holes to reinforce the piles

Working hours: Monday to Friday from 8.00am-6.00pm and Saturday 8.00am-1.00pm

Concrete pours until 10.00pm most weekdays

On site for an hour before the start and/or at the end of each shift

24/7 works during railway closures in spring and summer 2021, with noisy works concentrated in core hours whenever possible



Sheet piling

Sheet piling involves pressing metal sheets, or pre - constructed piles, into the ground using a hydraulic press. This technique is very quiet as opposed to driving or vibrating techniques.

There may be times we hit buried obstacles but otherwise, we would not expect nearby residents to notice this type of piling.

Vibratory sheet piling



Vibratory piling is a method of installing sheet piles using an excavator attachment known as a Movax. Whilst we always aim to use the least disruptive method of piling where possible, which is pressed sheet piling, there are locations where we have to use vibratory sheet piling. We need to use vibratory sheet piling in the Euston cavern worksite located in the cutting. This is because the space between the live railway and our worksite is too small to accommodate the

larger sheets and equipment required for pressed piling. Even if a larger sheet would fit in this space, it would be of a length that would penetrate the future tunnel beneath.

What equipment will I see?

A 26-meter (approx. 10 storeys high) high piling rig, cranes, excavators, polymer storage silos and concrete trucks are used for piling works.

Piling materials, such as reinforcement cages, are delivered on articulated lorries and concrete in concrete wagons.



How will the impacts from the works be managed?

As with all our works, we do our best to reduce impacts as much as possible and include

- vibratory sheet piling works only during core hours 8:00am to 6:00pm Monday to Friday
- working within legal noise thresholds
- minimising noise by screening works and controlling noise and vibration at the source, such as using the piling rig in 'eco' mode
- using a special attachment to clean the drill during piling as quietly as possible
- using super-silence generators
- fitting percussion tools with mufflers or dampers

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.

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.

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. Find reports at:

www.gov.uk/government/collections/hs2-ltd-residents-commissioner

You can contact the Commissioner at:
residentscommissioner@hs2.org.uk

Construction Commissioner

The Construction Commissioner's role is to mediate and monitor the way in which HS2 Ltd manages and responds to construction complaints. You can contact the Construction Commissioner by emailing:
complaints@hs2-cc.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

Find out if you're eligible for 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 our HS2 Helpdesk team. For more details on our complaints process, please visit our website:

www.hs2.org.uk/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's happening in your local area, visit:

www.hs2inyourarea.co.uk

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Somali

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Français

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Bengali

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