

First tunnel segment contract for HS2's London tunnels awarded to Pacadar UK

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HS2's contractor delivering the London tunnels, Skanska Costain STRABAG Joint Venture (SCS JV), has signed the first of two contracts for the production of concrete precast tunnel segments that will be used to construct HS2's London tunnels. Pacadar UK will be manufacturing the tunnel lining at their factory in the Isle of Grain, Kent. It will be the largest contract the company has ever delivered in the UK and will support 180 jobs in the UK.

The segments will be used in the first Tunnel Boring Machine (TBM) drives in London, when two giant machines will be launched in early 2022. The production will begin in January next year at the factory and the materials will then be delivered to HS2's TBM launch site in West Ruislip by rail, reducing HGV movements on the road, where the construction of the twin bored, 5 mile, Northolt Tunnel West will begin.

Malcolm Codling, Project Client for HS2 Ltd, said: "We are making exciting progress across London and are gearing up to start our immense tunneling work underneath the capital. It is great that the first of our precast tunnel segments are being manufactured here in the UK, providing UK jobs at a time when it is most critical as the country recovers from the pandemic."

Over 160,000m³ of concrete will be used to make the segments which form a 9.5m outside diameter tunnel 0.35m thick. Each complete ring is made of seven segments and a key. Each segment weighs approximately seven tonnes. They will be fitted to line the tunnel by the first two of six 2,600 tonnes Tunnel boring Machines (TBMs) that are currently under construction by world leading TBM manufacturer, Herrenknecht, in Germany. They will operate for 22 months non-stop, except for Christmas Day and other bank holidays. The first TBM for the London tunnels will be delivered later this year and will be assembled for launch in 2022.

James Richardson, Managing Director of Skanska Costain STRABAG joint venture (SCS JV) said: "This is an important milestone in the programme as we get closer to launching our first two tunnel boring machines next year. We're building 26 miles of twin bore tunnels, covering the 13 mile distance between West Ruislip and Euston, tunnelling up to 50 metres below ground. Using rail to deliver all our segments required for our tunnelling programme will help us to remove one million lorry journeys from the road over the lifecycle of our programme."

Pacadar UK, having just successfully supplied 7.5 miles of tunnel segments on the Thames Tideway Project, have the expertise, state of the art pre-cast factory combined with rail access for ease of delivery to support SCS -JV in delivering the London Tunnels Project.

Jorge Sanchez – Pacadar UK said: "PACADAR UK are excited to be awarded such an important contract. We look forward to working jointly with SCS-JV over the coming years and keep adding value to the project based on our expertise and know-how.

"The total length of the twin bored tunnel is 10 miles which will require a volume of concrete of 160,000 m³. The supply will be made by rail covering a short distance and reducing, therefore, the carbon footprint of the project.

"With efficiency and sustainability as our core objectives, PACADAR UK and PACADARGROUP will continue to be a reliable partner within the growing precast concrete sector."

HS2's London tunnels from West Ruislip to Euston station will have a total length of 26 miles, the same length as Crossrail. The construction of the first tunnel will be completed in 2024.

Photo credit: HS2 Ltd