

Factories Taking Shape at HS2 Construction Site



HS2's concrete plant at the Chiltern tunnel south portal site at Chalfont Lane takes shape.

The steel frame for the factory building in which HS2 will cast the concrete tunnel lining segments for its Chiltern tunnels has been completed at the project's Chalfont Lane site near the M25 motorway. This factory will allow HS2's main works contractor, Align JV (a joint venture made up of three companies: Bouygues Travaux Publics, Sir Robert McAlpine, and VolkerFitzpatrick), to cast all the tunnel segments on site and avoid putting extra HGVs onto local roads.



The new precast tunnel segment factory.

HS2's two giant tunnelling machines – named Florence and Cecilia – are due to launch next year. The 170m long, 2,200 tonne machines will spend more than three years underground, moving at a speed of 15.6m a day, and use 112,000 concrete segments to line the tunnels. A second precast plant will be used to cast sections for the nearby Colne Valley viaduct.

Once all of the HS2 construction work is complete, the pre-cast plants will be disassembled and the whole site will be landscaped, using material excavated from the tunnels, and trees planted in order to blend it in with the surrounding countryside.



The Caunton Engineering factory in Nottinghamshire.

The factory buildings, which will include a general warehouse, workshops and soil treatment plant as well as the two pre-cast factories, will use 2,400 tonnes of steel, all of which is being manufactured and supplied by specialist steel fabricator Caunton Engineering from its base near Moregreen, Nottinghamshire. Caunton, which employs 250 people in the East Midlands, is one of the UK's leading fully automated structural steelwork contractors and a leader in 'Just in Time' manufacturing. The family-owned firm, which has 50 years of experience in the sector, also delivered steelwork for the iconic new Museum of Liverpool.