

Route to Gold



Period 12

08 April 2022

What is Construction Route to Gold?

Route to Gold is a performance measurement initiative within the Southern region Capital Delivery supply chain. The initiative aims to promote collaborative working behaviours, reduce costs caused by re-work and embed a culture of continuous improvement within the rail industry.

Period 12's second-highest scoring site

Wadhurst Tunnel Cutting is the second-highest scoring site for Period 12.

Wadhurst has suffered a number of landslips over the past ten years, which has led to many services being cancelled and caused inconvenience for passengers whilst they were repaired.

The overall stabilisation works began in January 2021, covering both the country end and London end of Wadhurst Tunnel. The country end was completed in December 2021, with the London end ongoing and due to finish in June 2022.

The tunnel portal is up to 22 metres high in places and at an angle of 60 degrees; approximately a total of 3,600 soil nails and rock bolts are planned to be installed at the London end to secure the cutting (with a further 1,600 nails at the country end already complete).



The ground type varies between rock and soil at this location, so in order to provide the best solution, an active soil nailing and netting fix is being implemented on the top half of the cutting with a passive drape netting on the lower half.

The majority of work is being done while the line is open, however a 7-day blockade was used in October 2021 to install all possession-dependent nails at the London end. The team based at the London end are now finishing off the nailing and netting of the slope, with the goal to begin replanting at the end of April.

| Material Specification | |
|----------------------------|---------------------------|
| Product | Woven Coir Fabric |
| Colour | Natural Brown |
| Mesh Size | 5 - 8 mm |
| Number of Warp Treads | 10.3 dm |
| Number of Weft Treads | 6.8 dm |
| Warp and Weft Yarn Quality | Hand Twisted 200m/kg |
| Thread Diameter | 4.5 - 5.5mm |
| Total Weight | 750 - 850g/m ² |
| Tensile strength MD Dry | 9.99kN/m ² |
| Tensile strength MD Dry | 14.08kN/m ² |
| Tensile strength MD Dry | 9.75kN/m ² |
| Tensile strength MD Dry | 6.5kN/m ² |



Construction Manager Tom Harris said:

“The team have implemented a number of great initiatives on site. Knowing that the site has both dormice and badgers present, we have used alternative materials during construction to reduce the impact to the environment. Instead of using the usual plastic erosion matting that degrades into microplastics following UV exposure, the team have instead decided to use an alternative product formed from coir. The coir matting provides the same function as the plastic alternative but is biodegradable and will begin to decompose after two years. This will provide two growing seasons for vegetation to establish, following which the vegetation on the face of the slopes is expected to provide suitable erosion control.

“The team are also showing great care for one another by installing drinks fountains at the crest to keep operatives hydrated, as well as having a first aid set up above and beyond what many sites would expect.”

Top scoring sites by Route are:

| | | |
|---------------|-------------------------------|---------------------|
| Sussex | Gatwick airport station | Costain |
| Kent | Wadhurst Tun. Portal Cuttings | BAM Nuttall Limited |
| Wessex | Beaulieu Station | Osborne |

If you would like a full score summary report for all Southern region Capital Delivery sites please contact: [Paul Burr](#).

GOLD SITES



Costain
Gatwick Airport station

BAM Nuttall
Wadhurst Tunnel Cutting
Hassocks Embankment

SILVER SITES



Osborne
Infrastructure Ltd
Beaulieu Station
Landport Viaduct
New Milton Substation
Effingham Junction Substation
Epsom Substation
Motspur Park TP Hut

BAM Nuttall
Eastbourne
Oxted Viaduct
St Stephen's Level Crossing
Sutton
Bearsted
Balcombe Embankment
Thanet Parkway