

# EXPERTISE DEPLOYED AS LANDSLIP CLOSES RAIL LINE IN KENT



**From ground investigation and design, to the installation of a permanent retaining wall and rebuilding a failed embankment, our team worked around the clock to enable the quick re-opening of a railway line in the South East.**

Following a landslip after heavy rain in Newington in January 2021, we were called in to work alongside Network Rail and Balfour Beatty to resolve the situation on this busy railway line.

Within hours of being notified, Van Elle's Strata division was on site and completing a thorough ground investigation to generate our design. Initially the priority was to stabilise the slope and remove c. 3000t of spoil which consisted of mostly London Clay.

Once the spoil was clear our team began piling using our unique road rail fleet, however, the piles were refused before reaching the designed depth. With guidance from our expert engineers we revised the design along with the construction methodology to overcome the challenge.

With multiple teams working collaboratively, battling challenging weather, limited space and

long hours, we successfully installed a 62m sheet piled retaining wall ahead of schedule

Once the retaining wall was complete, attention turned to rebuilding the embankment, which involved importing 2,300t of engineered aggregate by rail.

Due to our collaborative approach alongside our partners Balfour Beatty, they were able to install 329m of drainage works during the two week emergency blockade, which was originally planned for a later date, avoiding the need of further disruption to Network Rail and their passengers.

**“Thank you Van Elle for helping out.  
A real team effort.”**

- Derek Butcher, Network Rail, Route Asset Manager  
(courtesy of LinkedIn)

# OUR APPROACH

- Our teams safely worked 24/7 to complete the emergency works
- 3,000t of earth removed from line before the embankment was rebuilt with 2,300t of imported aggregate
- 62m of steel sheet piles installed to depths of up to six metres
- Our efforts in completing ahead of schedule allowed Balfour Beatty to install 329m of extra drainage
- Rigs used were T10,000 Colmar RRV's with Movax & BSP Hammer for the sheet piles



## PROJECT STATS



January 2021



**Client: Balfour  
Beatty Rail**



**Kent**

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