



NEW RAILWAY EMBANKMENT WALKWAY -ST BRIDES RAIL STATION



600m³ of LECA lightweight fill was specified for a new railway platform in St Brides, Newport, South Wales. The new embankment walkway which is 340m in length and 2m high, was surrounded by agricultural land and interspersed with drainage reens. This embankment carries up to four lines and a signal gantry

spanning all four lines. The aim of the embankment was to provide a new and stable walkway for the platform.

Furthermore, a culvert runs through the embankment including two historical overbridge abutments. Whilst specifying a suitable fill material for the earthworks, the material required key properties including lightweight in nature, free draining and contained a suitable compaction rate, which was in compliance with Network Rail's specific specification.

Similar solutions were considered for this project, Paul Hartland, who was the Agent for this project at BAM Nuttall confirmed that 'similar products that complied with the specification were considered.', but LECA Lightweight Fill offered a solution which offered the 'specified fill requirement due to a low load bearing capacity and ease of installation.'

The LECA Lightweight Fill (10-20mm) was delivered loose by Walking Floor trailers at a delivery siding to the station compound in Newport, this was at a rate of around 70m³ per Walking Floor delivery, the material was then taken from the station compound and delivered into place by an excavator. A geotextile backing was used to accommodate the LECA Lightweight Fill and provide the suitable rate of stability for the important rail embankment.

The specification of the LECA Lightweight Fill from the design to delivery was proved to be successful. Paul Hartland, who was the Agent for this project at BAM Nuttall, stated that the 'product, service and commercial elements of the supply was excellent.', and the technical support provided by the LECA UK team was 'extremely helpful'.

FACTS

Amount of material: 600m³ of LECA lightweight fill was specified for a new railway platform in St Brides, Newport, South Wales

Interesting Fact: The new embankment walkway which is 340m in length and 2m high, was surrounded by agricultural land and interspersed with drainage reens

Delivery Method: Walking Floor

Main Contractor: BAM NUTTALL