

Project Info

 07 / 09 / 21


 CC13™ Bulk Rolls

 90m²

 Transverse Layout

 Stoke on Trent, UK

 ECK Engineering

 Installation of CC over an existing Cadent Gas pipe to prevent further erosion of stream around the pipe and to provide a high visibility layer.



Complete installation

In September 2021, Concrete Canvas® GCCM* (CC) was used to line a channel in Stoke on Trent, England.

Cadent Gas West Midlands had identified one of their gas pipe assets to have shallow cover and required attention. The stream at the bottom of farm land would flood and had caused significant damage further upstream to the embankment, eroding this and exposing old sandbag walls and the gas pipe.

As part of the overall scheme upstream to the pipe, approximately 80 tonnes of stone were placed on the embankments to control erosion in future flood events. Over the easement of the gas pipe, CC13™ was installed as part of the standard detail to provide erosion protection, weed suppression and a high visibility area. CC offers long term, effective weed suppression and was specified due to its ease of and speed of install, which significantly reduced time on site and the overall installation cost.

The works were carried out by ECK Engineering with JN Bentley for Cadent Gas.

*Geosynthetic Cementitious Composite Mat



Site before installation of CC13™



Channel prior to installation



Ground preparation after regrading



Delivered on Bulk Rolls and deployed from a spreader beam



Fixing into anchor trench



Hydration of finished installation



Finished installation



Finished installation

The ground was prepared by removing surrounding bushes and the sides of the channel were regraded and re-profiled to ensure a smooth surface, an important part of our 4 Key Principals prior to CC installation: Avoid voids, Secure CC, Prevent Ingress and Hydrate fully.

The standard transverse layout was used on this application with overlap joints secured with screws at 200mm centres, 30-50mm from the edge. The stream was dammed during the works and after installation, the material was hydrated with the use of a sump pump and flexi hose. Once the material had reached full hydration the sand bags were removed to allow the stream to flow.

With CC being typically installed 10x faster than traditional methods, 90m² of CC13™ were installed in 1 day. The project was very successful, with the client and the contractor both happy with the final solution. CC provided a rapid and efficient result, that is also a lower carbon alternative to poured concrete when providing erosion control and formalisation to the channels.