

Project Info



01 / 04 / 15



CC13™ Bulk Rolls



160m²



Transverse layers



Bexhill to Hastings Link Road, East Sussex, UK



Hochtief



CC used to line a drainage ditch to prevent erosion



Overview of completed installation, situated close to road and rail track

In April 2015, Concrete Canvas® GCCM* (CC) was used to line a ditch next to the new Bexhill to Hastings link road in East Sussex, UK.

A drainage route was needed to take surface water runoff to a local watercourse. Initially, a large diameter pipe was specified, however the poor ground conditions would have required significant temporary works and heavy machinery, increasing costs. Rigid plastic ditch liners were also considered but these were also ruled out because of the cost of required preparation works. CC was specified as installation of the GCCM does not require heavy plant, can be carried out with little preparatory works, and can provide significant cost and time savings compared to alternatives. The works were carried out by Hochtief for East Sussex County Council.

The minimal ground preparation required was carried out using an excavator to grade the ditch and cut anchor trenches into the shoulders. CC13™ bulk rolls were delivered to site and batched down to specific profile length. The batched material was then manually transported down the embankment before being unrolled transversely across the ditch. The installation team ensured a 100mm overlap between layers in the direction of water flow, before fixing the material into the anchor trenches using ground pegs which were inserted through the overlaps. The overlaps were jointed using stainless steel screws at 200mm centres. Screws were also used to fix the material to the concrete sandbag headwall at start of the ditch. Following hydration the anchor trenches were backfilled to prevent water ingress under the CC.

*Geosynthetic Cementitious Composite Mat





CC was fixed to substrate using ground pegs



Overlaps were jointed using screws



CC termination at concrete sandbag headwall



Completed installation, up-stream view



Downstream view post-installation



Completed project

160m² of CC13™ were installed in 1 day and provided a much more cost effective solution compared to the alternatives considered. The contractor was very pleased with the installation and has since used CC on other areas of the scheme.

“The original drainage solution provided a huge logistical headache so changing the design to a Concrete Canvas lined ditch saved a lot of time; I was really impressed with the speed and ease of installation.”

Martin Dewsnap
Drainage Foreman,
Hochtief (UK) Construction