

Project Info



10 / 06 / 2014



CC5™ and CC8™
Batched Rolls



400sqm



Longitudinal layers



San Casciano Val di Pesa, Pisa, Italy



AVR



CC5™ and CC8™
used to line a ditch
next to the Regional
Road SR 2



Completed section of ditch

In June 2014, Concrete Canvas® GCCM* (CC) was used to line two sections of ditch located next the Regional Road SR 2. Due to its elevation a crane would have been needed for conventional concreting, and due to the proximity of the road and the uneven ground there was nowhere that the crane could be parked without road closures.

Installation was carried out by AVR for Provincia di Pisa (the Province of Pisa). The ditch was excavated to profile, and any loose rocks were removed so the CC could be laid to get intimate contact with the substrate. Batched rolls were delivered and carried to site before being unrolled longitudinally down the length of the ditch. The first section of ditch was less than 1m wide so only one longitudinal layer was needed; however this section had a steep incline so CC8™ was specified to deal with the increased flow rate. The second section was excavated in a way that it gradually became wider, so as to transport the water with minimal turbulence from changes in profile. As the width became over 1m and the section was much flatter, two layers of CC5™ were used with a 100mm longitudinal overlap created. The CC was fixed to the substrate with ground pegs every 2m and screwed every 200mm. The CC was hydrated using a hose, and a cement grout was used along the overlaps to create a water tight seal.

400sqm of CC (340sqm of CC5™ and 60sqm of CC8™) were installed by 3 people in 5 days. After the first part of the ditch was installed there was heavy rainfall which caused large amounts of debris to flow in the ditch; this demonstrated the material working in challenging conditions even before installation was complete.

*Geosynthetic Cementitious Composite Mat





The ditch was excavated



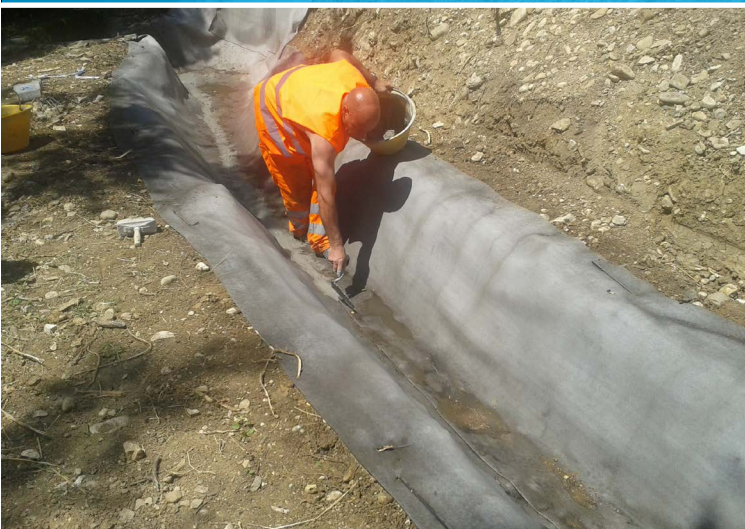
CC unrolled longitudinally



Hydration



Overlapped joints



Grouting



A completed section of ditch