

## Project Info



06 / 08 / 18



CC8™ Bulk Rolls



125m<sup>2</sup>



Vertical layers



Warblington, Havant, UK



Graham Attrill Civil Engineering for ESCP



CC8™ was used to provide remedial protection to sections of a seawall in Warblington, Havant



Completed sections of seawall repair installation

In August 2018, Concrete Canvas® (CC) GCCM\* was specified for use in a new application for Havant Borough Council. They specified the use of CC8™ to repair a sea wall in Warblington, Havant, Southern England. Contractor Graham Attrill Civil Engineers installed the CC material on behalf of the Eastern Solent Coastal Partnership – ESCP.

The original sea wall had been sprayed with concrete over 10 years ago, but expansion joints were not included and sections of the wall had cracked with some of the sprayed concrete falling away. CC was therefore used to 'patch' repair the failed sections.

Although the installation was carried out on a coastal site, typical high tides do not quite reach the wall but could limit access to the face of the structure. Works were also carried out during the summer to avoid disruption to works and limit any disturbance to the environment.

Prior to installation, the surface of the wall was brushed to remove any moss or loose concrete, and large voids filled with grout to create a smoother profile and ensure a flush installation. The CC was deployed from a spreader beam from behind the wall, then sealed and fixed using masonry bolts at 200mm intervals along joints and wherever required to secure the material to the wall and minimise void space between the material and wall surface. The CC edges were also sealed and fixed to the existing concrete to prevent ingress. Once installation was completed, a bowser was used to hydrate the material.

\*Geosynthetic Cementitious Composite Mat





*Site and damaged seawall prior to installation*



*Section of damaged sea wall*



*CC first attached to the back of the wall*



*Vertical layers of CC used to cover damaged sections*



*CC protected sensitive environments*



*Completed sections of seawall repair*

The installation was carried out in three days, with a total of 125m<sup>2</sup> of CC8™ used. The client is pleased with the outcome of the scheme, and the use of CC reduced time on site and logistical costs, as well as reducing disruption on the site. The material will prevent further damage to these sections of wall, with an anticipated durability in excess of 50 years for a Northern European climate.

*“Havant Borough Council were pleased with the outcome of the works. The method of working was chosen as it allowed for minimal disruption to the environmentally designated foreshore, and reduced the working footprint compared to other methods of repair used in similar locations. Following the works, the location has been regularly monitored to identify how the Concrete Canvas has reacted to the environment. This will continue over the winter to monitor the response of the material to storm events.”*

Clare Dolan  
Coastal Engineer, Havant Borough Council