

Project Info



15 / 01 / 2013



CC5 batch rolls



30sqm



Vertical and Transverse layers



Coatham Marsh Nature Reserve, UK



Environment Agency UK



Concrete Canvas was used by Tees Valley Wildlife Trust to construct a 5m long artificial sand martin bank at Coatham Marsh nature reserve.



Completed sand martin bank

In January 2013, Tees Valley Wildlife Trust (TVWT) began construction of a 5m long artificial sand martin bank at Coatham Marsh nature reserve to enhance wildlife habitat on the site. The work formed part of a project funded by the Environment Agency (EA) who are currently involved in improving coastal defences along Redcar seafont, and saw a need to balance this construction with some improvements for local wildlife.

Most artificial sand martin banks are constructed from concrete blocks, with sand and/or earth banked up behind. However, TVWT wanted to limit the amount of concrete that would be used in the project, due to the difficulties and logistics involved with repairing or removing it in the future. There was also the issue of limited site access, unpredictable weather and a limited budget to contend with. Concrete Canvas was chosen because it provided a solution to these problems - it can be supplied in man-portable rolls, uses less concrete than traditional solutions, can be installed in the rain and offers significant cost savings over many traditional concrete products.

The main shape of the sand martin bank was defined by a 5m long timber sub-structure. Timber posts were driven into the ground, then braced and reinforced by a frame and shuttering. CC8 was laid vertically over the shuttering, pulled taught to ensure it followed the contours of the frame as closely as possible and fixed using wide-head screws and galvanised nails. Crosses were then cut into the canvas to allow the insertion of the plastic nesting tubes. Once these were secured in place the CC8 was hydrated using man-portable containers. The material was re-wetted the following morning to ensure it set completely. Sandbags were then stacked inside the timber structure to reduce any sinkage, before the back of the structure was covered with mounded up soil, which will eventually green over and allow the structure to blend in to the landscape.

TVWT and their installation team were very impressed by Concrete Canvas, commenting on its ease of installation and flexibility. CC has provided a very resilient basis for the structure, without any of the associated difficulties of mixing concrete on a remote and environmentally-sensitive site.

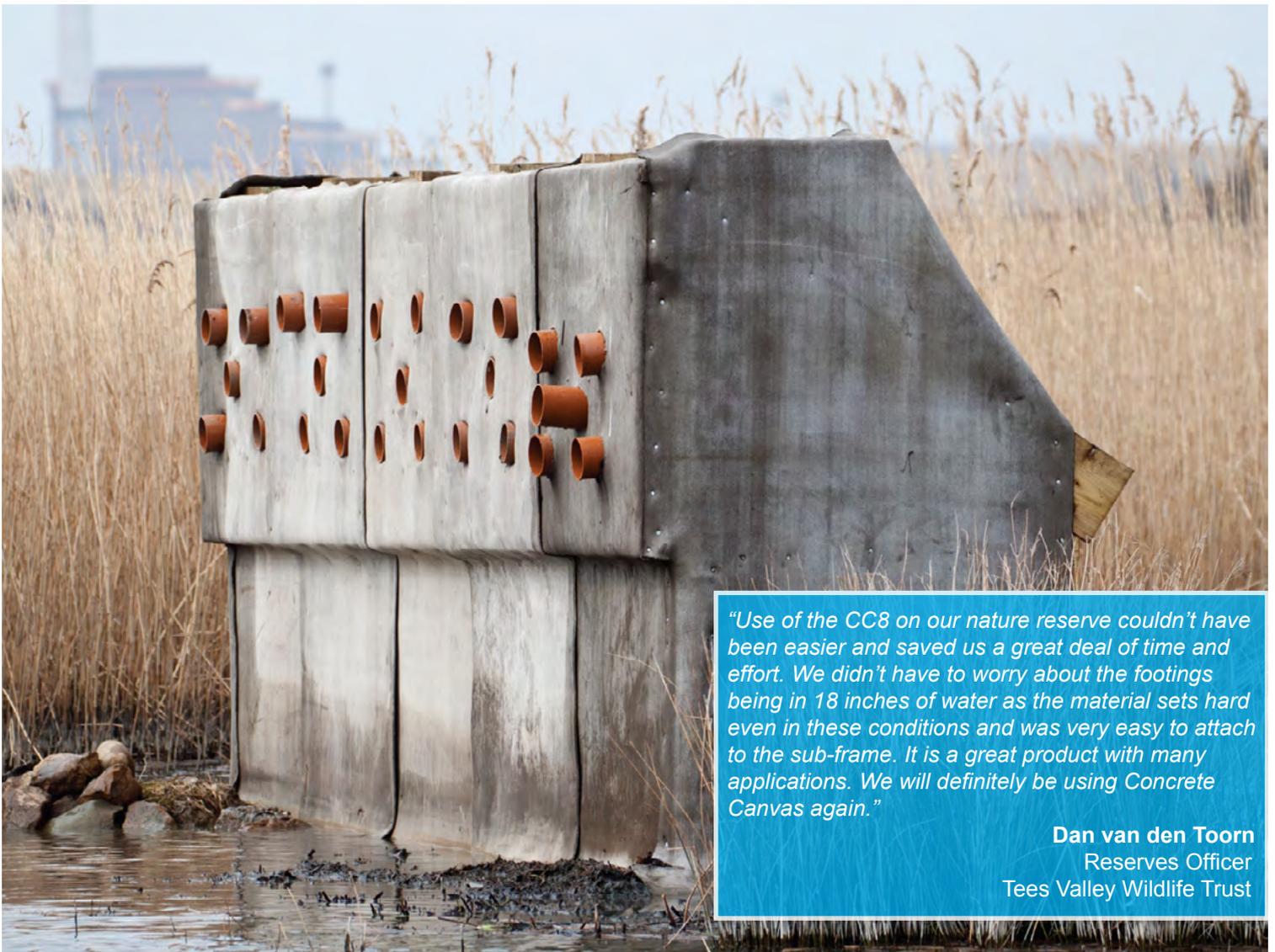




Timber frame prior to installation of CC8



Vertical layer of CC undergoing hydration after insertion of nesting tubes



"Use of the CC8 on our nature reserve couldn't have been easier and saved us a great deal of time and effort. We didn't have to worry about the footings being in 18 inches of water as the material sets hard even in these conditions and was very easy to attach to the sub-frame. It is a great product with many applications. We will definitely be using Concrete Canvas again."

Dan van den Toorn
Reserves Officer
Tees Valley Wildlife Trust

Structure prior to installation of sandbags and mounded soil