

Project Info

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CC

CCT2™ Bulk Rolls

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500m²

V

Transverse layers

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Tobermaclugg Park,
Adamstown, Dublin,
Ireland

H

B&C Contractors,
Quintain, Waterman
Moylan

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To provide scour
protection to a channel
at the newly constructed
Tobbermaclugg Park
residential development



QUINTAIN



Completed installation

In October 2022, Concrete Canvas® (CC) GCCM* was specified as a channel lining solution for a watercourse channel located at the newly constructed Aderrig residential development in Adamstown in Dublin. Quintain, one of the largest housebuilders in the country, awarded the main contract to B&C Contractors Monaghan LTD with engineering design undertaken by Waterman Moylan Engineering Consultants and Doyle & O'Troithigh Landscape Architecture.

Due to significant water flows during high rainfall events, it was decided the watercourse channel should be lined with an erosion control solution to prevent scouring and erosion. Concrete Canvas® was specified by the engineering consultant due to the flexibility of the material, allowing it to accommodate various bends within the channel and provide a quick and easy solution for the contractor on site.

CCT2™ is a [Type II](#) GCCM as defined in [ASTM D8364](#), it is suitable for use on soil subgrades and was chosen for this project to suit the abrasion, wear and loading requirements.

Prior to installing the CCT2™ material, the contractor used an excavator and bucket to dig the 120m long channel. All sharp rocks and protrusions were removed from the channel and crushed aggregate was placed in the invert and side slopes to ensure a smooth surface prior to laying the CCT2™ material.

*Geosynthetic Cementitious Composite Mat



Channel excavated



Crushed aggregate compacted for smooth substrate



CCT2™ laid transversely across channel



Leading edges terminated into anchor trenches with J-pegs



CCT2™ hydrated using hose and water bowser



Completed project



Completed project

CCT2™ Bulk Rolls were delivered to site and deployed using a spreader beam mounted on tracked plant machinery. The material was unrolled into the channel transversely and cut to specific profile length to eliminate wastage. The CC™ layers were overlapped by 100mm in the direction of water flow and were then sealed and screwed together at 200mm intervals using 30mm stainless screws.

The material was terminated into 150mm anchor trenches on either side of the channel and fixed to the substrate using 250mm ground pegs prior to being backfilled with site-won fill to prevent water undermining the CC material. The CC material was able to accommodate several precast headwalls and walkways with no issues which helped save the contractor time on site. The material was fully hydrated at the end of every shift with a hose from a 2000 litre water bowser.

In total 500m² of CCT2™ was installed in 1 week with a team of four including the machine operator. By using Concrete Canvas® GCCM on this scheme, the contractor reduced the logistical footprint of the project and provided a durable erosion control and scour solution for the watercourse channel.