Erosion Control

abg creative geosynthetic engineering

Case Study

Channel and slope protection using Erosamat and Erosaweb

The Taylor Wimpey Barratt Homes development on Henthorn Rd, Clitheroe presented the project consulting engineers with an interesting challenge.

Running across the development was an existing water course which required realigning and reprofiling. Part of the watercourse was channeled through a culvert with the remainder left as an open channel to form a green amenity area within the development.

In order to maximise the available land for the development of housing the slopes of the culvert bank were to be as steep as permissible whilst taking into account the safety of the new residents.

The slopes of the channel were to be vegetated and in order to prevent erosion of the topsoil before the vegetation established Bett Associates deemed the inclusion of an erosion control mat necessary.

During periods of heavy rainfall the water flow velocity down the face of the slope was considered a risk so the

Key Project Information

Client	**Taylor Wimpey plc**
Consultant	**Betts Associates**
Contractor	**X&P McGuigan**
Products	• **Erosaweb GWX100/300 (1000m²)** • **Erosamat Type 3 (5000m²)**
Benefits	• **Speed of installation** • **Long-term protection**

use of a short-term biodegradable mat was discounted, preferring instead a permanent installation. The long lengths of the slope mean that the erosion control mat also needed an inherent tensile strength to withstand the load applied by the top soil before the vegetation root structure was established. Having considered various options it was decided that Erosamat Type 3 offered the necessary performance requirements.

Erosamat Type 3 comprises a three dimensional structure of entangled filaments to create a long lasting, environmentally friendly, flexible erosion control mat which, in combination with vegetation, forms both an effective erosion control surface and a vegetative root reinforcement layer.

The bottom of the flow channel required a different solution, one capable of withstanding the high flows within the watercourse. Here the consultants specified Erosaweb infilled with graded crushed stone engineered to withstand wash out by running water.

Erosaweb is a three dimensional honeycomb structure designed to strengthen infill materials by containing them within its open structure. In water flow channels it dissipates energy by containing the granular fill and producing a rip-rap type performance.

A holistic design combining both ABG products allowed the engineers to achieve the desired visual effect for the channel whilst allowing the groundwork contractors to quickly and simply install the required protection.

Contact ABG to discover how Erosamat and Erosaweb could help you deliver a sustainable, cost efficient and carbon neutral solution.

About ABG

ABG are a market leading developer of high performance geosynthetic solutions for use in a wide range of civil, environmental and building applications.

Established for 25 years and based in the UK ABG pride themselves of delivering outstanding customer service along with innovative solutions.

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