

SUDS PONDS ON HOUSING DEVELOPMENT CAMBOURNE, CAMBRIDGESHIRE, UNITED KINGDOM

Waterproofing of Reservoirs, Lakes and Channels

Problem

Burghley Green is an attractive new development by Taylor Wimpey in West Cambourne, Cambridgeshire. As this was originally a greenfield project and there would be greater impermeable surfaces as a result of the development, it was necessary to add sufficient sustainable drainage ponds to address this.

The aesthetically pleasing ponds would promote pollutant control while also providing habitat to aquatic vegetation and wildlife along their “shoreline”.

Solution

Maccaferri MacLine GCL liners were used to provide the impermeable lining to the ponds. The MacLine GCL W20 is a geosynthetic clay liner (GCL) that consists of a naturally occurring bentonite layer sandwiched between non-woven geotextiles.

The MacLine GCL has “self-healing” properties in that if the liner is punctured the bentonite expands sealing the puncture. Installation is straightforward and can be completed by a competent contractor as there is no need for specialist welds like in an HDPE liner. The liner is supplied in rolls which are unrolled in position on the site with a small overlap with an adjacent panel of clay liner.

Maccaferri supplied a total of 25,000m² of Macline W20 to 4 different ponds on the project.

Client: Bovis Homes / Taylor Wimpey

Designer / Consultant: ECL Civil Engineering

Contractor: ECL Civil Engineering

Products used (Qty.)

- Gcl 25000m²

Date of construction: 06/2021 - 07/2021

[Google Maps](#)

[Google Earth](#)



MacLine GCL lining in place post-construction



MacLine GCL lining in place post-construction



Lagoon with vegetation and habitats establishing