

The Leggar Retail Park

Ground engineering for construction on former Cellophane factory's landfill site

CLIENT Possfund Custodian Trustee Limited
LOCATION Bridgwater, Somerset
SERVICES Ground, civil & structural engineering, flood risk assessment

ARCHITECTS MPP



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The project is a 2.5 hectare extension to the existing Bridgwater Retail Park, to be constructed primarily on the site of a former Cellophane factory landfill in the heart of a commercial and retail area in Bridgwater. The site has never been developed because of considerable issues relating to the historic use of the site, formerly a clay pit and then a landfill for the disposal of waste from one of Bridgwater's Cellophane factories.

Clarkebond was approached by Chelverton, on behalf of LaSalle, to investigate the site for ground engineering aspects, leading to an options appraisal for any remediation and risk reduction measures. The landfill waste extended to 6m depth. Shallow groundwater and potential pollution pathways to the nearby River Parrett presented significant pollution concerns.

Clarkebond prepared a flood risk assessment and drainage strategy for planning submission and are preparing detailed structural designs for the new retail units and for adaptations to the existing retail units. A survey of the surrounding drainage networks was necessary to determine suitable outfall locations for storm and foul drainage.

The FRA proposed the following mitigation measures which have been incorporated into the proposed development:

- A Flood Emergency Management Plan
- Flood protection of all new buildings to include demountable barriers, and installation of the barriers to be triggered by the EA Flood Warning system or by local triggers such as flood waters observed near to the Site.
- Use of flood resilient materials in building construction.

New buildings will be piled. Clarkebond will be advising on measures to lessen the impacts of settlements in surrounding non-piled areas. This will take into account the findings of the detailed flood risk assessment which dictated minimum floor levels and areas requiring demountable flood protection.

Clarkebond has designed a new highway link serving the congested Bridgwater Retail Park which will alleviate traffic congestion, improve access to the existing Retail Park and provide an alternative route for vehicles accessing /leaving the new development.