



Liverpool LC9, Special Educational Needs Facility

Type of System: Stormwater Attenuation

Date of Installation: 2011

Tank Size: 225m³ – Attenuation
2,400m² – Shallow Storage

Site Problem:

A new special educational needs facility was to be built in Kirkby, Liverpool. It required a sustainable urban drainage system comprising of a 225m³ attenuation tank, and 2,400m² of shallow storage as part of a porous system to car park areas.

Solution:

ESS specified and designed a VersaVoid stormwater attenuation system for the engineers at Cundall Consulting Engineers, working to a groundwater depth at only 0.80m below ground level. Flotation calculations were completed to prove that the VersaVoid tank and depth were feasible. Alderburgh supplied the materials for the VersaVoid attenuation tank, which was installed by Alderburgh Group company Solutek Environmental, with a module depth of 1.55m.

Alderburgh also supplied 2,400m² of Aquadrain 50, which was laid within the sub-base build up to the porous paving system of the car parks to provide additional stormwater storage. This also reduced the depth of the fill that was required, thanks to Aquadrain 50's 96% void ratio.

Summary:

- The modular configuration allowed for a flexible, ideal site solution that worked with the new drainage layout, along with other existing infrastructure both above and below ground level.
- The high void ratio of the VersaVoid modules meant less excavation was required due to the higher water storage capabilities.



VERSAVOID

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