



Project Description

The redeveloped former Oaks shopping centre in Acton, West London provides 178 new apartments and 42,000 sq. ft. of retail space. ABG worked with Osel Architecture, developers O'Shea and contractors Cawston Specialist Roofing to implement the blue roof attenuation system design for the project.

The Challenge

The redevelopment project required SuDS planning measures to minimise contribution to local flood risk and to meet the water authority's site discharge limits. Underground stormwater storage tanks are problematic and expensive to construct in town and city centre locations, with the excavation process creating additional site traffic that adds to carbon emissions and causes extra site safety risks.

The Solution

ABG provided a design alternative to implement a total of 11 bluroofs areas to attenuate and control the discharge of stormwater across the various roof levels, including onto five separate podium decks. The bluroof attenuation volume was designed to accommodate a 1 in 100 year storm event, plus 30% allowance for climatic change and calculated to match the discharge consent limit defined for the site catchment area with NHBC approval.

Project Information

Developer	O'Shea
Contractor	Cawston Specialist Roofing
Architect	Osel Architecture
Products	ABG bluroof & Biodiverse Roof Systems
Quantity	6,320m ²
Benefits	<ul style="list-style-type: none">• Versatile ABG bluroof system to allow for a range of surface finishes• Eliminated the need for attenuation tanks at ground level• ABG biodiverse roof system contributes to BREEAM assessment• Complete ABG service: design through to installation



ABG bluroof system

ABG bluroof

Biodiverse Roof & Amenity Podium Areas, The Oaks, Acton, UK



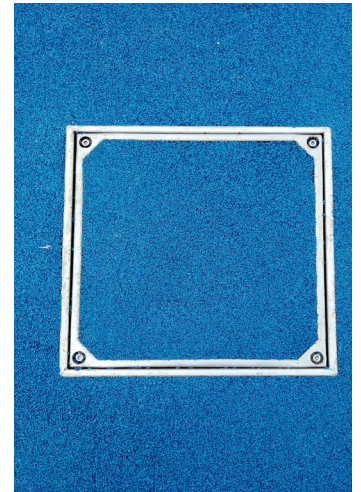
The Solution

The ABG bluroof system is used to provide temporary attenuation of stormwater, and to restrict the rate that water enters the wider drainage network. The ABG bluroof design means the stormwater attenuation requirements were met within the roof and podium build-ups, and therefore the need for expensive underground storage or other SuDS methods could be avoided.

The ABG bluroof system provided a carbon saving alternative for retrofit onto the Oaks redevelopment, with installation of attenuation at roof level estimated to have reduced carbon emissions by 59% compared to excavating basement stormwater tanks. In addition to the bluroofs, ABG also installed five biodiverse green roof areas that further improved the sustainability rating of the redevelopment.

The ABG Service

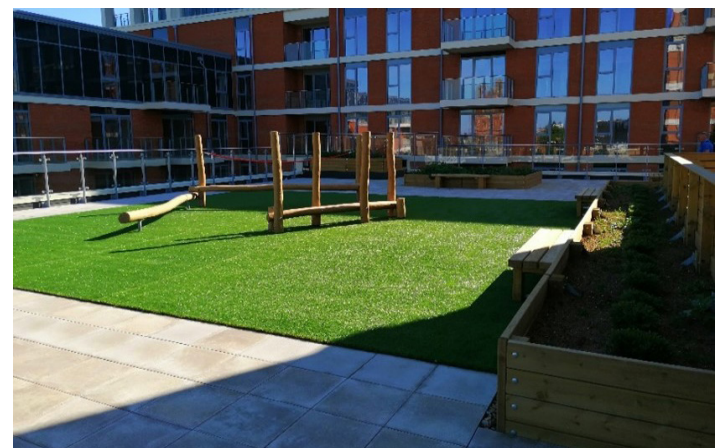
ABG provided a full technical solution from design to manufacture, supply and installation of the blue and biodiverse roof systems.



Stormwater attenuation chambers installed within paving and resin bound surface finishes



Flat selvedge ensured easy overlapping and jointing



High flow capacity in all directions

ABG LTD

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