



### Project Description

Owners ECf entered into an agreement with landowner Newham Council to deliver a sustainable and mixed-use community at Rathbone Market, including 652 homes with shops and public landscaped amenity squares to produce a pleasant living environment. Facilities include public walkways and ornamental ponds at podium level and an allotment for residents to develop at roof level.

### The Challenge

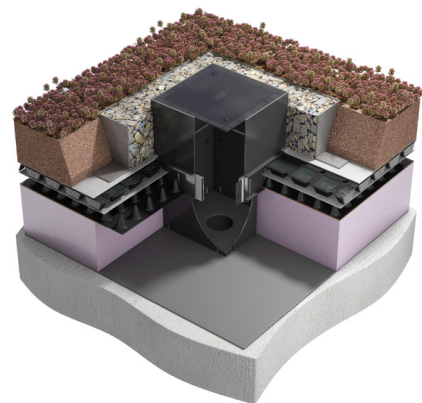
The designer obtained consent under the latest SuDS regulations in this densely built area of London. Restrictions on outflow rates to sewers from the building demanded high attenuation. The original design for attenuating water following a storm event involved discharging to tanks buried under the ground. In addition to this being an expensive method, construction space at ground level was at a premium. Buried tanks would not only take up valuable space, but would also interfere with below ground services. It was determined an alternative solution was required.

### The Solution

ABG introduced the idea of utilising the flat roof space available. For any alternative solution to be considered it would have to take in to account the storage/discharge requirements, restrictions on parapet threshold heights, and BREEAM requirements for biodiversity enhancement. ABG proposed their **bluerooF system**, which could be installed directly on top of the hot melt waterproofing system and accommodate the range of surface finishes required. ABG bluerooF utilises the roof construction for the attenuation of storm water, releasing it at a

### Project Information

<b>Client</b>	English Cities Fund (ECf)
<b>Contractor</b>	John Sisk & Son / ABG Installs
<b>Architect</b>	Churchman Landscape Architects
<b>Products</b>	ABG bluerooF
<b>Quantity</b>	850m <sup>2</sup>
<b>Benefits</b>	<ul style="list-style-type: none"><li>• Versatile to allow multiple finishes</li><li>• Fitted in tight working environment</li><li>• ABG bluerooF eliminated the need for attenuation tanks at ground level.</li><li>• Installed directly on to Hot Melt Roof</li><li>• ABG service: design through to installation</li></ul>



Example of an ABG bluerooF System with extensive finish



controlled rate in the period following the storm. The parapet thresholds meant storage limitations at high roof levels. ABG's solution was a cascading system from high to low level roofs, with each level having its own bespoke bluroof. These systems varied in depth from 25mm (high levels) to 120mm systems (low level). Finishes on the seven roof areas included public paved access and landscaped areas, ballasting used under maintenance areas and biodiverse areas used to attract wildlife. This also increased potential for BREEAM points. Space to construct the system in most of the roof areas was very restricted and the bluroof system needed to be cut and fitted to shape. Contractor Geogreen Solutions cut and fitted the system to suit the many architectural features and penetrations through the roof.

### The ABG Service

ABG with their versatile system and design backup managed to produce the most cost effective solution and eliminated the requirement for attenuation tanks at ground level.



The multi-layer ABG bluroof with water reservoir system on the low level roof area, showing cut outs for penetrations with sealing methods, ready to receive the biodiverse growing media and plants.



ABG bluroof system cut to suit architectural features



ABG bluroof restrictor chamber in biodiverse roof areas