



## DYLON WORKS, LOWER SYDENHAM, LONDON

**Client**  
Crest Nicholson London

**Axtershield Installer**  
Tilbury Contracts

**Developer**  
Crest Nicholson London

**Architect**  
Scott Brownrigg

**Roof Area**  
7500m<sup>2</sup>

### Challenges

The project is a 0.7 hectare blue roof, one of the largest in London. One of the main challenges encountered was achieving a 10l/s water run off rate for the entire 7500m<sup>2</sup> site. Another challenge was to maintain a low u-value (0.10w/m<sup>2</sup>K) and achieving the design parameters for the blue roof.

### Solutions

The use of a blue roof means the site is actively contributing to protecting the waterways of England. The design of the blue roof was modelled from a 300 year period, taking in to consideration likely climate changes and predicted rainfalls at peak events.

The vapour control layer, our Wilotekt-Plus hot melt system, provided an extremely robust working platform that allowed the superstructure and external cladding of the building to be installed, prior to the installation of the waterproofing system. On top of the VCL, there are two layers of 110mm Hytherm ADH insulation boards to achieve a target u-value of 0.10. On top of this, there is a 3mm self-adhesive bituminous membrane and a 4mm root resistant cap sheet.

The system was tested using a unique differential pressure testing method to ensure that the roof was watertight, prior to the installation of the 85mm blue roof system and bio-diverse roof finishes on top of that. The bio-diversity contributes to the local ecosystem and has a fully integrated PV system that provides the majority of the electricity to the occupants.

### Systems used

- Force Dalle blue roof system on main roofs
- Wilotekt-Plus blue roof system (non-insulated) on podium



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