

## Greener Delawyk



### SuDS used

- *Rain garden with downpipe diversion*
- *De-paving and mini-wildflower meadow*
- *Permeable paving footpaths.*

### Benefits

- *Stormwater attenuation*
- *Improved public amenity space and community cohesion*
- *Enhanced biodiversity*
- *Microclimate and combating the urban heat island effect.*

### 1. Location

Delawyk Crescent, Herne Hill, London Borough of Southwark, SE24 9JD

### 2. Description

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The Greener Delawyck scheme incorporated multifunctional SuDS features and depaving to create greener spaces for residents and wildlife to enjoy in a Council housing estate dominated by impermeable surfaces. Incorporating approximately 270 m<sup>2</sup> of new SuDS and enhanced green space, the scheme demonstrates how relatively small-scale interventions can deliver substantial benefits. Southwark Council collaborated with the London Wildlife Trust to develop the scheme, together with input from local residents.

### 3. Main SuDS components used

The drainage strategy incorporated a combination of formal SuDS for attenuation and water quality treatment, as well as increasing permeable surfaces through depaving and planting. Together, the following features reduce runoff volumes and peak flows into the local sewer network, with a strong focus on multifunctional benefits:

- An existing downpipe draining roof areas was diverted into a new 37 m<sup>2</sup> rain garden, which was planted with shrubs and flowers, providing water treatment and attenuation. A cobbled stone inlet was incorporated for erosion control and aesthetic interest.
- Installation of 96 m<sup>2</sup> of new permeable resin bound footways to replace existing impermeable surfaces, proving source control and reducing runoff rates and peak flows.
- Additional depaving of existing hardstanding areas which helps to reduce overall runoff rates, by capturing and infiltrating direct rainfall. This included installing a new 36 m<sup>2</sup> wildflower meadow, a 20 m<sup>2</sup> lawn, as well as removing hardstanding areas between existing planting beds and replacing with 74 m<sup>2</sup> of new lawn areas with enhanced new planting.

Design focused on enhancing biodiversity and also delivers localised air quality and microclimate benefits through increased green space and reducing the urban heat island effect.

### 4. How it works

Source control was provided through installation of permeable paving, as well as depaving existing hardstanding surfaces and replacing with new vegetated areas planted with wildflowers and grass.

Water quality treatment was provided through the rain garden bioretention system which filters stormwater through soils, before releasing it slowly into the local private sewer system, which eventually discharges to the nearby public combined sewer. Additional treatment was provided by resin bound permeable footpaths.

### 5. Specific project details

The scheme helps to reduce the peak flow of surface water entering the combined sewer system and is located in a Critical Drainage Area (CDA) where managing surface water flood risk is a priority.

The scheme was initiated by Southwark Council in partnership with the London Wildlife Trust and took a collaborative approach to stakeholder engagement. Local residents were engaged from the outset, including the Delawyck Residents Management Organisation (RMO), who supported the scheme. Meetings and workshops were held with local residents, who also participated in a community planting day to launch the scheme in March 2019.

### 6. Maintenance & operation

Maintenance of the scheme is delivered by the local gardening group who already maintain the majority of the estate, with coordination from the Delawyck Residents Management Organisation. The inclusion of low maintenance plant varieties was also emphasised during design.

## 7. Monitoring and evaluation

At the time of writing, the scheme had been constructed 14 months ago, allowing for the plants to become established. The Council is in ongoing contact with the Delawyck Residents Management Organisation and therefore channels of communication exist to report and investigate any issues which may arise.

## 8. Benefits and achievements

The key objective was to deliver a multifunctional scheme, with priority for improving the area for residents and wildlife. Key achievements of the scheme include:

- Local-scale reduction of runoff and provision of attenuation
- Enhanced green amenity spaces for residents to enjoy
- Improved habitats and biodiversity
- Community building and social cohesion through design consultations and gardening events
- Contributing to a cleaner and safer area by deterring fly tipping and graffiti/vandalism at previously unused or neglected spaces.

## 9. Lessons learnt

Since the scheme was located at publically accessible areas of a Council housing estate, any interventions will have an impact on the daily lives of residents. Therefore, the Delawyck Residents Management Organisation was engaged at the outset. Concerns were raised by some residents regarding maintenance, including who would be responsible for it. As a result, planting designs were modified to incorporate residents' feedback and include lower maintenance species.

Initially, proposals included several options for rain gardens, permeable paving and planting across the estate. Designs were refined following funding applications and public consultation, with the preferred options finally shortlisted at three locations. No doubt, if this was a new build scheme rather than a retrofit, there would be greater scope for introducing SuDS and enhanced green spaces. Green roofs were also proposed at some existing garages, however, they were not taken forward following assessment of the structural capacity, as well as requirement for residents to vacate property from the garages during installation.

## 10. Interaction with local authority

The scheme was initiated by Southwark Council, with support from its Lead Local Flood Authority. Since it was implemented at a Council-owned social housing site, the scheme was developed with strong links to residents including the Delawyck Residents Management Organisation.

## 11. Project details

**Construction completed:** *March 2019.*

**Cost:** £55,000 for construction including a £50,000 grant from the Mayor of London’s Greener City Fund and £5,000 from Southwark Council’s Cleaner Greener Safer Fund.

**Extent:** 270 m<sup>2</sup> of SuDS and enhanced green spaces.

## 12. Project team

|             |  |   |
|-------------|--|---|
| Funders     | <ul style="list-style-type: none"> <li>Mayor of London</li> <li>Southwark Council</li> </ul>       | <p>SUPPORTED BY</p> <p><b>MAYOR OF LONDON</b></p>   |
| Clients     | <ul style="list-style-type: none"> <li>Southwark Council</li> <li>London Wildlife Trust</li> </ul> |   |
| Designers   | <ul style="list-style-type: none"> <li>AECOM</li> </ul>  |    |
| Contractors | <ul style="list-style-type: none"> <li>T Loughman Ltd</li> </ul>                                   |   |
| Other       | <ul style="list-style-type: none"> <li>Delawyk Residents Management Organisation (RMO)</li> </ul>  |    |

*Rain garden – after*



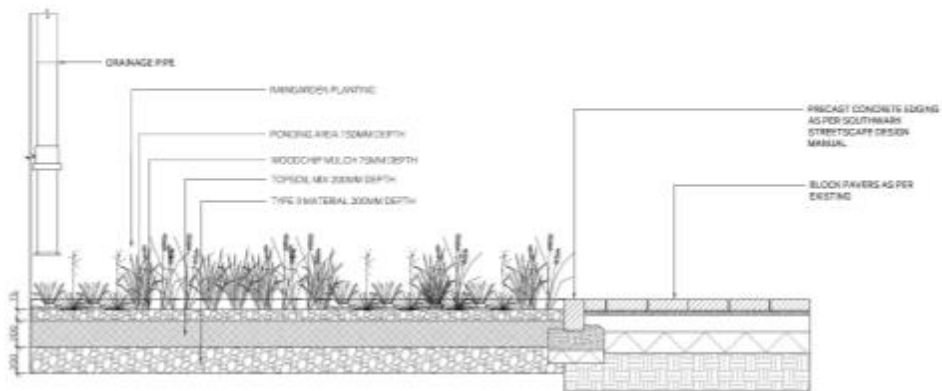
*Rain garden – during construction*



Rain garden – before



Rain garden – section



*Resin bound permeable paving*



*Depaving and new planting*



### Site plan



### Design workshop with residents

