

Southwell Road Community De-Pave Garden, London



SuDS used

- *Rainwater harvesting*
- *Green roof*
- *De-paving*

Benefits

- *Increased infiltration of water – reduced quantity of runoff and improved quality*
- *Increased amenity value, social cohesion and wellbeing of residents*
- *Educational opportunities*
- *Increased biodiversity for wildlife*

1. Location

1-7 Southwell Road, Brixton, SE5 9PE
Grid Ref: TQ 321 758

2. Description

The Southwell Road garden is in the London Borough of Lambeth, located in the Herne Hill Ward on the boundary with the Coldharbour ward. The 270m² garden is situated behind the block of residential flats on Southwell Road.

The location resides in the catchment of the culverted River Effra, a tributary river to the Thames running through South London, now a 'lost' river as it was culverted in the 1860s. However, the topography of the land is still that of a river valley, increasing flood risk; the sewers are already fuller than they would be due to the 'Effra water' and the loss of green space in favour of hard surfaces means surface water runoff stretches the sewers even further. This has resulted in increased vulnerability to flooding in the area, added to by increased heavy rainfall events due to climate change. The area is highly urbanised, socially and culturally diverse with high levels of deprivation and low levels of well-being. London Wildlife Trust's Lost Effra Project in partnership with Loughborough Farm, Loughborough Junction Action Group and Lambeth council and the support of the local community, removed the tarmac and installed SuDS to create a new green infrastructure that manages rainwater more intelligently. The previously unused space has been transformed into a community hub with edible gardens, communal seating and a variety of native flora.

3. Main SuDS components used

Two 1000 litre water butts take runoff from the roofs of the adjacent buildings, a 26m² green roof on adjacent garages further reduces runoff, and a 330m² area of impermeable surface has been made permeable through removal of tarmac and replacement with woodchip and a gravel base layer.

4. How it works

A large area of hardstanding has been removed and replaced with gravel, hoggins and turf, allowing for a permeable surface which previously drained into the combined sewer. Two roof downpipes take the rainwater runoff from a approx. 180m² of roof surface into two 1000l water butts, which are used to water the gardens. A green roof on garages at the back of the building absorb roof runoff into the roof substrate itself and further drains into a smaller water butt.

All water is managed above the surface. The scheme discharges to water butts and infiltration.

Consultations with residents showed support and enthusiasm in turning the redundant space into something with recreational and wildlife value.

Responses from residents secured a group of local and community members willing to establish and maintain the garden.

Biodiversity is increased through native planting alongside the vegetables in the raised beds, and native species on the green roof to provide a food source to pollinators. There are also several bug hotels on site.

Amenity is increased through a small lawn and seating area at the back of the garden, used by residents for parties and gatherings.

5. Specific project details

The garden was designed by ion gardens, a local garden designer.

The raised beds and railings were installed by Glenstone, the existing hardstanding was removed by FM Conway (contracted through Lambeth Council) and other landscaping and installation was completed by Streetscape.

The raised beds were planted with fruit and vegetables by the local community, with plants funded by Natural England and Lambeth and ordered by London Wildlife Trust and Streetscape. A mural on the back of the garages facing into the area was painted by ATM Street Art.

6. Maintenance & operation

The garden is maintained by residents and the local community as part of a community gardening group organised through Loughborough Farm

7. Monitoring and evaluation

The scheme was designed to showcase the many knock-on benefits SuDS can bring to a community, and it has succeeded in this. The garden remains operational and well cared for three years after completion, with all components continuing to function well. Residents continue to learn new skills, enjoy time in nature and contribute to their community while meeting their neighbours through use of the space.

The green roof was studied by students from UCL in 2017, who found that it retains 73% of the water that falls on it.

8. Benefits and achievements

- Increased community cohesion and social wellbeing
- Successful growing of fruits and vegetables
- The garden continues to be cared for and well maintained by residents and community members.
- Significant reduction of surface water from hardstanding and roofs entering the combined sewer. Increased knowledge of SuDS and surface water flooding by those involved with the project.

9. Lessons learnt

The designs for the garden had to be re-worked several times after consultation with residents, with the raised beds being placed at an angle to improve privacy for those in ground floor flats, and an initial idea of a sandpit being scrapped. There were also some levelling issues with services covers across the site once the hardstanding was removed, which required unanticipated extra work from contractors.

Extra de-paving and reduced costs were achieved by removing unnecessary paving slabs from the front of the building and using them to create the paved areas on site.

10. Interaction with local authority

Lambeth Council were instrumental in making this project happen, and it was successful thanks to the close relationship between the Lost Effra project and the council flood risk officer. Lambeth secured some funding for the project, and arranged for the contractors FM Conway to remove the hardstanding. They also provided removal of waste material free of charge, including providing a skip. Lambeth Housing also helped to provide funding and support for the scheme.

11. Project details

Construction completed: *March 2015*

Cost: Estimated total cost of the garden was £28k, but the project came to approx £25k.

Extent: 366m²

Breakdown:

Item	Total
Planting and sundry items	£2,000
Hard landscaping	£14,474
Raised beds	£5,300
Green Roof	£4000
	Total = £25,774

12. Project team

Funders	<ul style="list-style-type: none"> • Lambeth Council • GLA (Pocket Parks) • Lambeth Living • Natural England • Edible Landscapes
Clients	<ul style="list-style-type: none"> • Lambeth Housing • Lost Effra Project
Designers	<ul style="list-style-type: none"> • Ion Gardens • Lost Effra project officer
Contractors	<ul style="list-style-type: none"> • FM Conway • Streetscape • Glenstone
Other	<ul style="list-style-type: none"> • London Wildlife Trust • Loughborough Junction Action Group • Loughborough Farm

13. Site images and illustrations

Southwell Road garden - sketch ideas based on consultation



Fig 1: Initial Designs

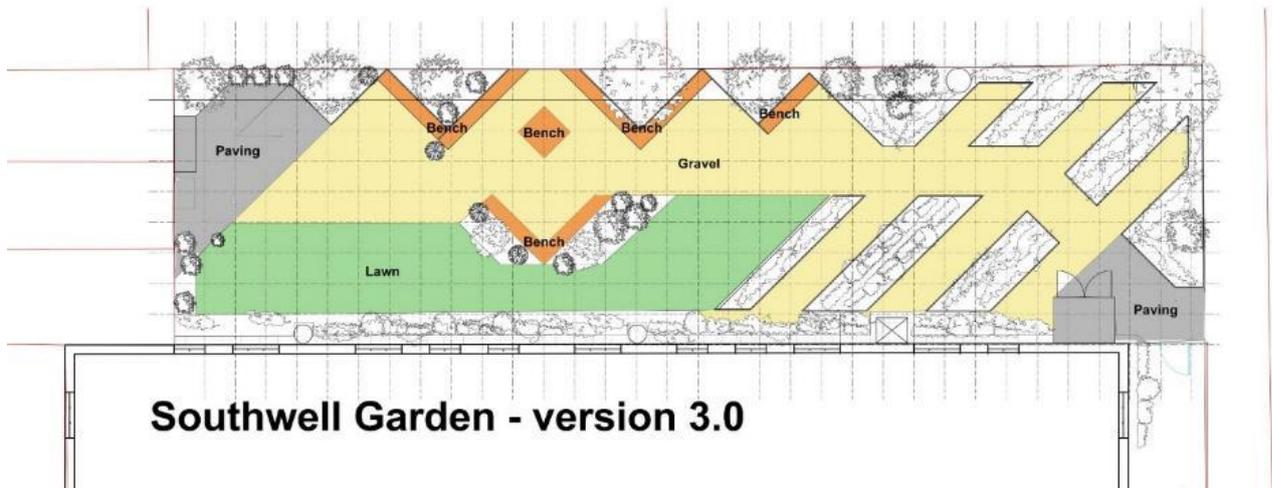


Fig 2: Final design



Fig 3: Site before work commenced



Fig 4: View of site from green roof with decking area under construction



Fig 5: The site still thriving in 2017



Fig 6: Amenity and biodiversity area in 2017