



## 5c. *How to:* Green the built environment

### Why is it important?

There are a number of ways in which the built environment can be designed or adapted to reduce the impact of growing urban sprawl on local wildlife. These features include green roofs, green walls, modified brick and roof tiles, balconies, and roof eaves, all of which can support a range of flora and fauna.

This is crucial as, within the UK, 15% of around 8000 species are facing extinction, with David Attenborough suggesting that the UK has lost more nature long term than the global average, making the UK one of the most nature-depleted countries in the world. Scientists identify many reasons for the reduction in the world's insect populations, notably the use of pesticides, the spread of monoculture crops, urbanization and habitat destruction.

### What does sustainable practice look like?

#### Real life example

Cola's Rail depot in Rugby have had a living wall and roof installed by company 'Sky Garden.' The wall has an irrigation system and is free draining onto a border below. The living roof is made from a sedum blanket which flowers beautifully in spring. This process has completely transformed this urban space. There are multiple case studies of living walls and roofs installed in various settings on Sky Garden's website.

#### Modelled example

Rachel is a receptionist at a mixed NHS/private dental practice, which is located in a city centre. She is helping the practice owner maximise the space they have to promote biodiversity, and has suggested employing green walls, and using their balcony and window areas to support diverse plant life.

**Green walls** are vertical systems of green foliage. They can be found on any type of vertical surface, attached to buildings directly or free-standing. Many dental practices, even those within apartment or office buildings may have balconies. These can contain a number of small plants including herbs, flowering plants or grasses, and Rachel is hoping to grow a variety of herbs on hers.

A **green roof**, also known as a '**living roof**,' or '**brown roof/bio-diverse roof**,' is an affordable option to improve the sustainability of a building. They are designed to allow growth of a number of different vegetations and can be created by rolling out matting or wildflower turf, or can be more specialised. The roof structure can be quite low maintenance especially if stress-tolerant species are used, so Rachel thinks this would work well in their building.

**Sara Harford, Darshini Ramasubbu, Brett Duane, Frances Mortimer - Centre for Sustainable Healthcare (2018)**

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## Actions

### KEY:

**Implementation:** Easy = Less Easy =

**Investment Cost:** Low = High =

**Financial return on Investment (ROI):** Low = High =

**Environmental benefit:** Small = Large =

- Create a green roof or green wall
- Plant out the balconies
- Place nest boxes in the roof eaves
- Remove concrete or tarmac and allow ground coverings to be porous and living



## Resources

### Case studies

**Sky Garden at Cola's Rail, Rugby:**

<http://ww2.sky-garden.co.uk/case-studies/colas-rail-green-wall.php>

### More links

**WHO Urban green space:**

<http://www.who.int/sustainable-development/cities/health-risks/urban-green-space/en>

**Centre for Sustainable Healthcare and Green space:**

<https://sustainablehealthcare.org.uk/what-we-do/green-space-and-health>

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