

## Reducing flooding while creating a nicer environment

### SUSTAINABLE URBAN DRAINAGE SYSTEMS

#### The Challenge

In urban environments, the natural soakaways for rain provided by gardens, grass and trees are increasingly being replaced by hard standings. The result is local drainage systems having to cope with increased volumes of water, often overflowing and flooding.

#### The Solution

Sustainable Urban Drainage Systems (SUDS) re-introduce natural soakaways for rain water that would otherwise head straight down the drain. Areas of hard standing are replaced often by gardens, where the water is held in the soil, used by the plants and any excess is slowly released back into the natural aquifers.

Business in the Community (BiC) wanted to pilot SUDS at two public sector sites in Manchester (a school and a NHS location) and therefore we began working with them in early 2018 to identify an appropriate freehold site for their health care project.

Shaw Heath Health Centre was selected after reviewing several potential sites. NHS Property Services acted as Project Manager working closely with BiC and their partners organisations ARUP and Stantec, who provided the design and engineering sign off that the scheme would function as intended. Stakeholder engagement was key with the design, any disruption during construction and ongoing upkeep all discussed with the staff.

Funding of £20k had been allocated from BiC, however with initial budget costs predicted a spend of £26k. We agreed to cover any shortfall in the budget to ensure the project continued. Post tender project works were negotiated back down to the £20k.

The project started on site in March 2019 for three weeks as the concreted area at the front was dug up and replaced with soil and colourful displays of flowers and shrubs. We will continue to maintain the new drainage system and plants.

#### The Result

The project has created a decorative planting area to allow excess surface water to soak away and stop it feeding into the main waste water drainage system. This has reduced the banding category for the water rates and saved money on the annual water rates. It now forms a demonstration site for companies wishing to invest in this type of development in the future and form part of the Major of Great Manchester's wider environmental programme across the North West.

Shaw Heath Health Centre has also gained the benefit of a beautiful garden. Many patients and staff that utilise our properties lead high stress lives, being it waiting for appointment / diagnosis or dealing with every day work demands of the NHS. At Shaw Heath Health Centre the garden is next to where the breast screening van operates, providing a quiet, relaxed environment for patients to wait. The garden has also increased the biodiversity of the area, providing a space for our multi-legged and winged neighbours a place to inhabit and a food source for at-risk bees.