NBS University of Salford
In partnership with GMCA's IGNITION Project

Living Lab

Official Launch

Living Lab Virtual Tour
12:40 - 13:00

Living Lab Launch Event
13:00 - 14:30

17 June 2021

Join us online!
Register here

University of Salford MANCHESTER

the ignition PROJECT
NATURE-BASED SOLUTIONS TO THE CLIMATE EMERGENCY

GREATER MANCHESTER
DOING THINGS DIFFERENTLY

UIA

European Union
European Regional Development Fund

Venue and Directions

Event Livestreamed from
Chapman building
12:40 - 14:30

Living Lab Installations
on campus

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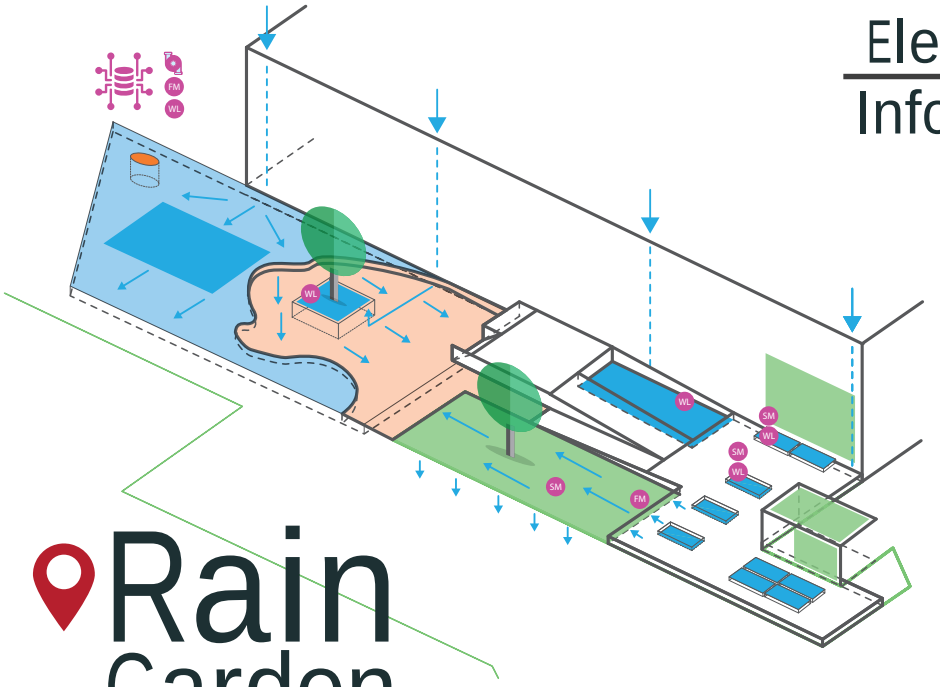
Elements Design Information Pack NBS Living Lab



Rain Garden

This innovative Rain Garden introduces a Sustainable Urban Drainage System (SuDS) that works as a sequence of passive water management practices, control structures and strategies designed to efficiently and sustainably drain surface water from the adjacent building roof with special regard for engaging biodiversity in the solutions.

The water from the roof of Clifford Whitworth library is channeled through solutions in the building wall and ground water treatment solutions in the ground. This aims to minimise or even eliminate the water ending up in the university's surface water drainage network which flows into the nearby River Irwell.

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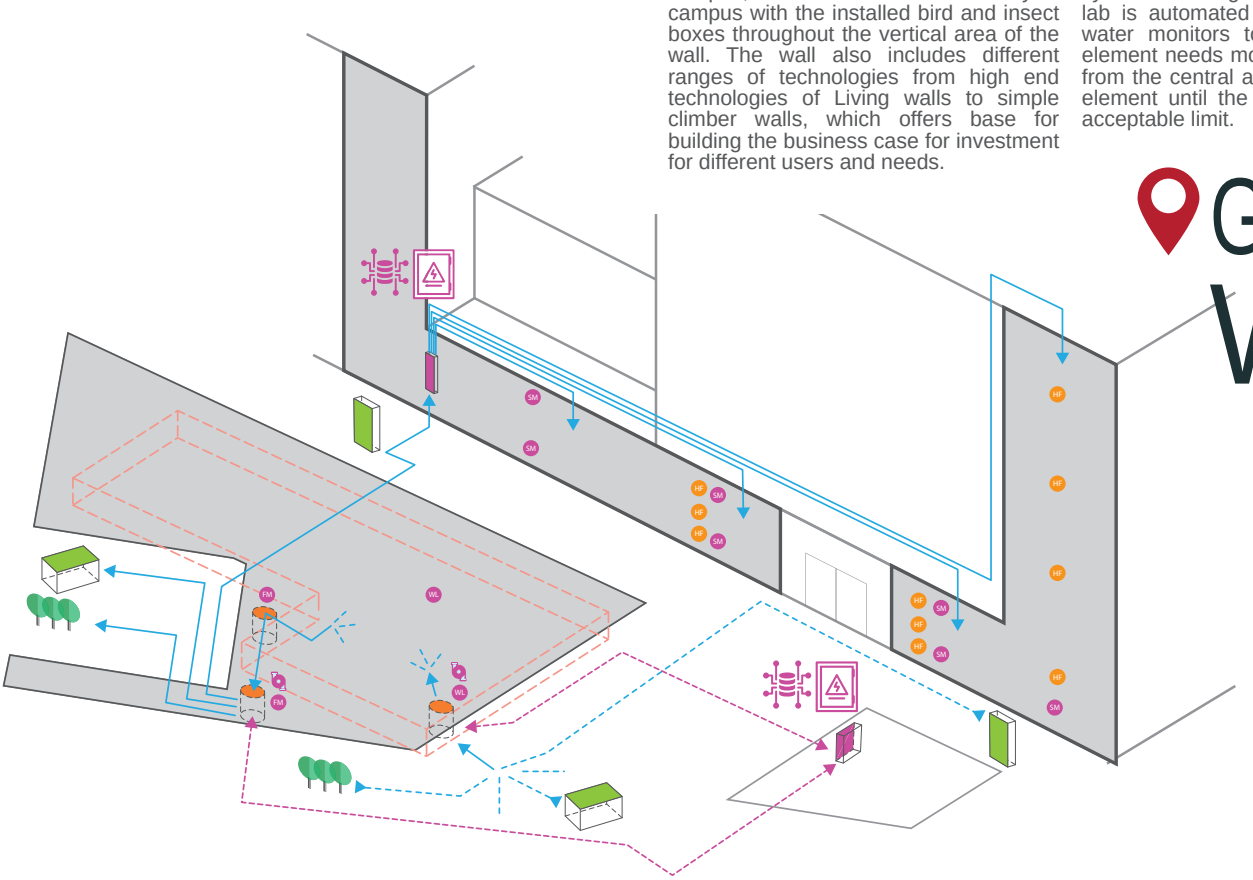
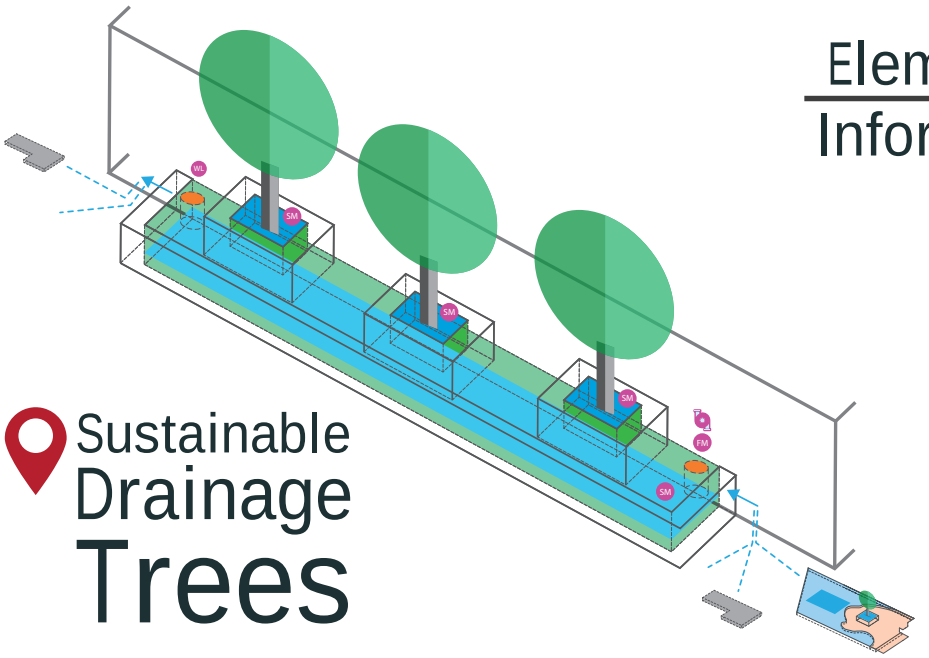
Green Wall +Deck

This green wall consists of 4 different planted sections: biodiversity, seasonal, pollinator, edible. This mass of plant life and soil helps insulate the building, utilize excess rainwater from the university campus, and attract more biodiversity to campus with the installed bird and insect boxes throughout the vertical area of the wall. The wall also includes different ranges of technologies from high end technologies of Living walls to simple climber walls, which offers base for building the business case for investment for different users and needs.

In front of the green wall, and at the heart of the living lab sit two underground water tanks, which act as the collection point of excess water, as well as the base of automatic irrigation for the living lab system. The irrigation system in the living lab is automated to use the data from water monitors to identify if a certain element needs more water, pumping this from the central attenuation tanks to this element until the levels are back to an acceptable limit.



Elements Design Information Pack NBS Living Lab



Sustainable Drainage Trees

These trees are based in an extended tree pit that sits in recycled Permavoid plastic structures, similar to a honeycomb structure, which provides aeration to the soil and room for the tree roots to grow without being squashed. The base of the tree pit contains a monitored reservoir of water which provides water automatically to the trees when needed. As these trees are connected underground and receive more water that any other street trees, they are designed to grow much faster and healthier.

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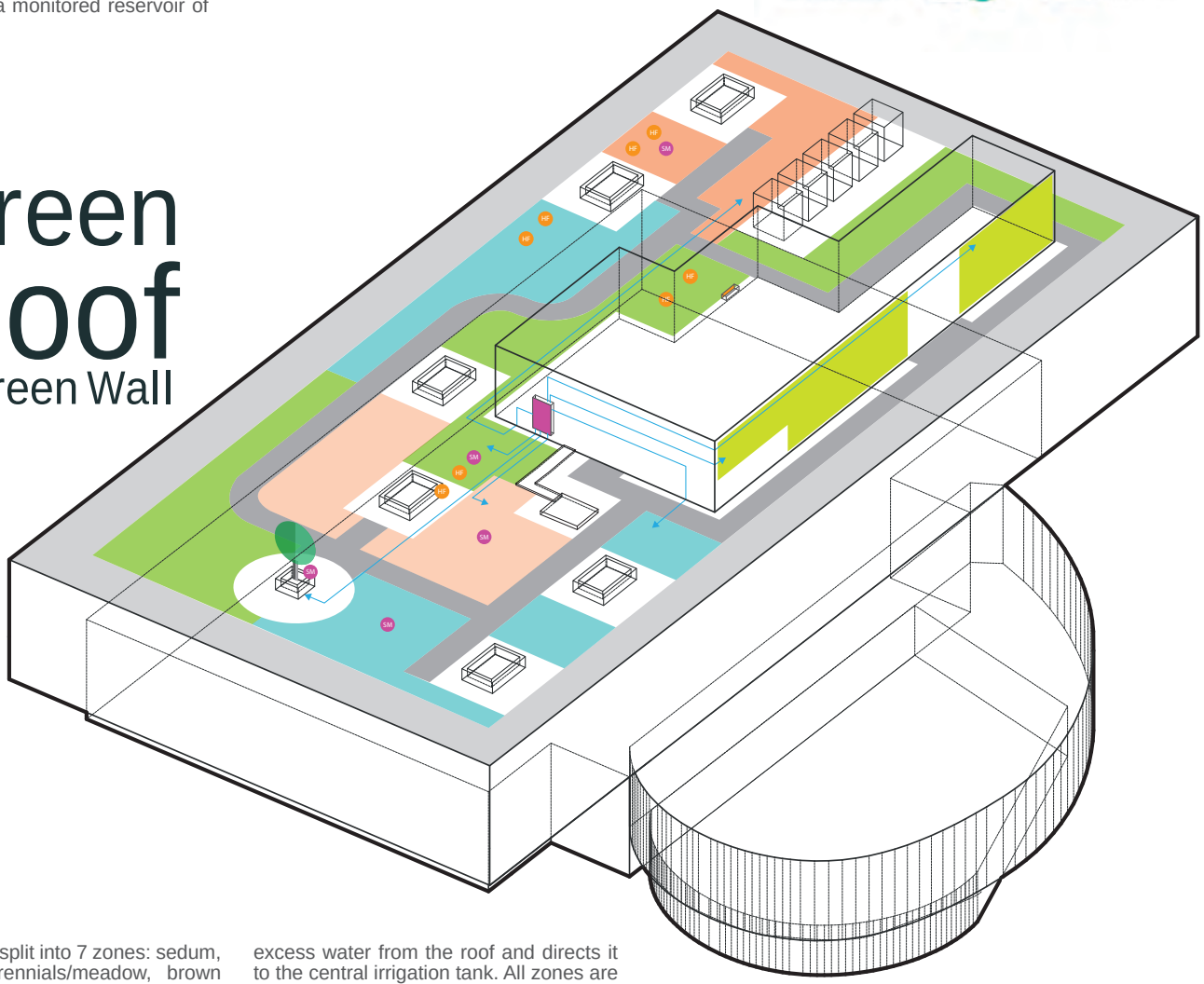
Green Roof +Green Wall



The roof area is split into 7 zones: sedum, wildflowers, perennials/meadow, brown roof, a lightweight tree pit, a climber wall and a living wall. The roof also includes 6 experimental beds for green roof design research purposes.
This all sits on a multilayered floor with a drainage underlayer that collates the excess water from the roof and directs it to the central irrigation tank. All zones are monitored and are automatically watered as needed from the irrigation tank. The weight and retrofit considerations were an essential factor in the design of this roof.