



Greening Rooftops for Sustainable Communities
 conference, awards & trade show
 Atlanta, GA
 June 3 to June 5, 2009

The main substrate used was a locally sourced and supplied mix, comprising 80% crushed recycled brick (diameter 50-70mm) and 20% green waste compost. The majority of the mounds were also composed of this material. Two mounds were created by adding crushed limestone from a local source on top of the base material. The reference for this was the limestone dales (hills and valleys) of the nearby Peak District National Park – semi-natural grasslands over limestone are some of the most diverse European vegetation types. A secondary layer of detail was then superimposed on this base layer. A dead tree was placed on the roof to act as a bird perch, but also as invertebrate habitat. Sculptural piles of logs again provide additional habitat. Demolition materials provide visual reference to the urban brownfield inspiration for the roof. A small pool was installed over the area with greatest load-bearing capacity. The Peak District limestone areas have a very distinctive cultural landscape with drystone walls dividing small fields. This will be symbolized by low dry stone walls merging into the mounds. Again these loose walls will have invertebrate habitat value.

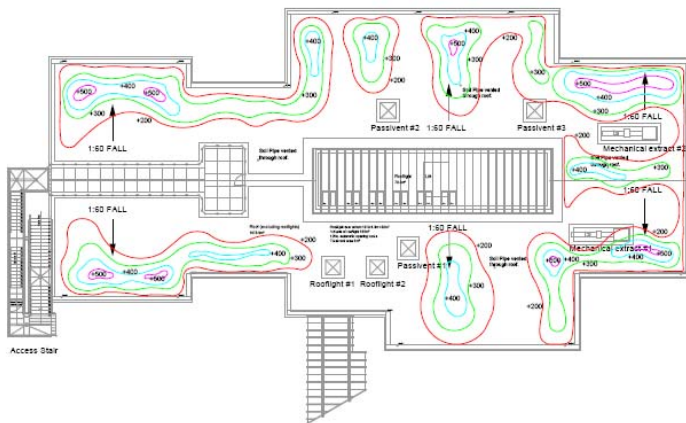


Figure 5. Contour plan for the green roof. The green roof is accessed by the external staircase to the left. A paved walkway and viewing platform enables school groups and visitors to visit the roof in safety. A large central skylight opens to the internal atrium of the school.

As discussed above, the green roof elements above the drainage layer were installed largely through volunteer effort supplementing the input of the building contractors (Kier Group). This had the extra benefit of saving costs, providing team-building opportunities, and educating people in green roofs. One hundred volunteers were involved. This proved a major organizational task. Groundwork Sheffield organized parties of volunteers, and a timetable of operations was put together by Cath Basilio. The contractors, Kier, had to ensure that insurances were addressed and approved, volunteers were site inducted, method statements produced, and supervised the works. This was an input that went far above and beyond the remit of their contract and the goodwill of Kier was essential to the success of the project.