

03 – Pilot – participative adaptation solutions on a hospital site

I. Cross-border pilot action to co-create and implement non-traditional adaptive measures (SUDS), to improve the hospitals resilience to surface flood risk, integrating at the same time improved functionalities for the hospital (e.g. quality of stay for patients)

Activity : Reuse of existing materials

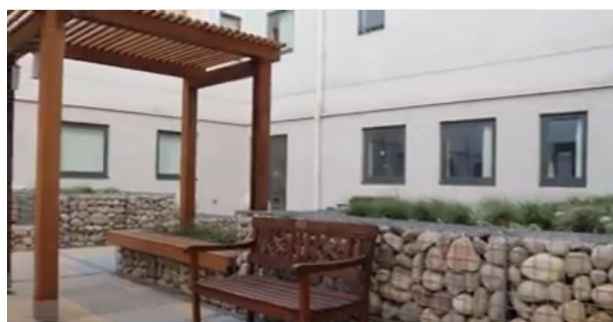
Activity Stage: Construction

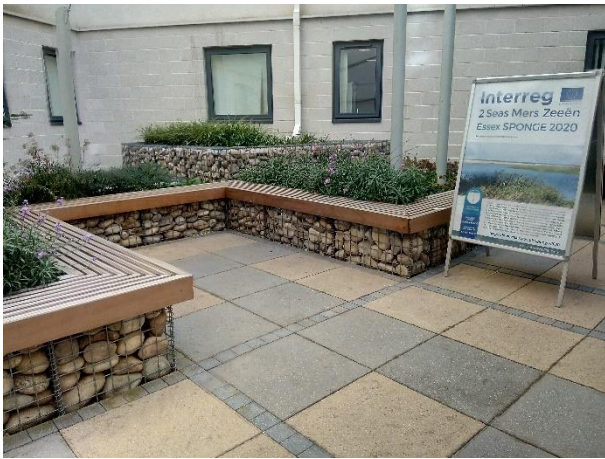
Pilot Project: Basildon Hospital, Essex

During the design and engagement phases for the Courtyards Landscaping and SuDS Scheme at Basildon Hospital, it became clear that the environmental sustainability of the proposed scheme was vital, and that resource efficiency would be an integral part of this. At the same time, it was clear that materials would need to be transported through the hospital - either new materials coming in or materials for disposal coming out. This is a very challenging task in a hospital environment due to various restrictions and health & safety issues.

After a number of face-to-face meetings and telecons with the contractor and the hospital, it was agreed that these issues could be turned around into a fantastic opportunity to boost the project's environmental credentials, minimise disruption to the hospital and at the same time achieve significant financial savings, by reusing as much of the materials as possible on site.

Once construction began, most of the existing pavement slabs, shingle stones, downpipes, breakout materials and furniture were carefully removed, cleaned and put to one side where practicable. This was a lot easier than having to rip them up, dispose of them and bring new ones in, especially in light of the significant constraints associated with moving building materials around in an operational hospital. Overall, this approach was welcomed by everyone involved – and perhaps one of the biggest lessons learnt is that waste only becomes waste when it's buried in the ground. When undertaking a retrofitting project look at what you're planning to dispose of – does it really need to go, or can you give it a new life?





Among the realisations carried out, there are new planting beds were introduced, some of which are high-raised beds to take larger volumes of water. The infiltration planter allows rainwater runoff from hospital roofs flow down through downpipe. Downpipe has been diverted to redirect water into the infiltration planter, removing direct connection to the underground drainage system, resulting in a total decrease in discharge from roofs of 62%; also, permeable paving was installed, where the joint spacing between slabs promote natural drainage by allowing water to pass through the paved surface. Here it is worth mentioning that slabs were re-used from the original courtyard. All the water from the roof will be absorbed by the greenery and garden, which means it will not end up in the river system.



Mobilising volunteers to take on long-term maintenance

Activity Stage: Post construction

Pilot Project: Basildon Hospital, Essex

One of the main concerns for the pilot project at Basildon Hospital was ensuring the long-term maintenance of the scheme. There was a risk that the landscaped courtyards and the flood attenuation basin would slip into a state of disrepair as maintenance has only been secured for one year after the end of the project, a common problem for projects. There is funding and commitment to put the infrastructure in place but there are usually no arrangements for on-going maintenance costs.

So, working with the contractor, who will be maintaining the site for one year, and with the hospital, the pilot project team decided to engage a group of volunteers to take on the task of maintenance. It was found that there is an existing volunteer group who undertake various activities around the hospital. At the same time, the contractor had been putting together a maintenance plan. So, the team had successfully secured two key elements – the enthusiastic people and the knowledge. The next steps still to come for the pilot are to hire a consultancy with experience in setting up and training such groups and, working together with the contractors, they can transfer the necessary skills and knowledge. Ideally, after one year the group will be able to independently carry out all maintenance activities.

This will save money in maintenance and will also create a sense of ownership in the scheme amongst local people, which will in turn drive the enthusiasm to keep the site in good condition. At the same time, it will contribute towards the continuation of the project as most volunteers will be briefed on the multiple functions and benefits of the scheme and thus it is hoped it may inspire them to create similar schemes on their own.