

MITIGATING
FLOODING WITH
PERMEABLE
PAVEMENT



GREENLIGHT GREENPAPER

FALL 2016



The GreenLight project team developed a comprehensive plan for a sustainable, permeable paver system as well as acquired funding for implementation.

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Challenges & Opportunities

Shaw Montessori faces a flooding issue in their current school entryway. The school always looks for sustainable solutions to problems, which led to GreenLight Solutions' involvement in the project. An opportunity which arose from this challenge is that of redesigning the currently uninviting entryway to beautify the space. This challenge also provided the opportunity for a sustainable stormwater management system to be set in place, which complemented the past project's living-learning laboratory that was built.

Recommended Solutions

The GreenLight Solutions Montessori Team proposed the implementation of permeable pavement in the area, which would be cost effective in the long run as well as sustainable due to its water filtration properties. To both mitigate the effects of flooding as well as beautify the area, we proposed that more native plants be planted in the space. In addition to the native plants, we proposed a mural to create a more inviting atmosphere than the current empty wall creates. The welcome space is also directly adjacent to the location of the dumpsters. To further beautify the area, we proposed a trellis be built to the specifications of the fence around the dumpsters. The trellis would optimally provide extra space to grow plants and green the area. Lastly, we proposed that a green wall would cover the largest portion of the welcome space's empty walls to further green the area and make it both more welcoming and encourage a sustainable outlook.

Project Benefits

BENEFITS TO PROJECT PARTNER

Currently, a single entryway is the only entrance for students. With permeable pavers implemented, students do not have to be concerned with flooding. The school will also not have to worry about the wear flooding creates on the pavement. Shaw will also have a sustainable solution to manage stormwater, which will encourage students, faculty, and parents to think about how to integrate more sustainable solutions into their lives as well.

BENEFITS TO SOLUTIONEERS

Students participating in this project gained practical skills such as teamwork, grant writing, and research. Through the process of developing the project, students learned how to negotiate, compromise, as well as think creatively.

BENEFITS TO THE COMMUNITY

The community will have a school that offers more opportunities for the students. In addition, all families in the community will have a center of education for the school's sustainable habits. The school will also have a more inviting space for people to gather, which allows for an opportunity to build community among the school's members.