Aesthetics & Ecology:
Landscape Architects Rethink Stormwater Management Design

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Abstract

The state of Florida has faced rapid growth under conventional development practices that deplete natural resources and critically impact the health of ecosystems. To achieve meaningful change, there must be a paradigm shift to create more sustainable integrated models for addressing development and conservation. Landscape architects are well poised to contribute as agents of change in areas of site planning and design practices, especially in the area of low impact development (LID).

Professors Glenn Acomb, Tina Gurucharri and Kevin Thompson have been integrating LID design approaches into the University of Florida's Department of Landscape Architecture curriculum, focused on approaches to stormwater management design that result in more aesthetic and ecologically functional solutions. These approaches are more holistic and require the collaboration with other disciplines. Through a poster presentation, student projects and faculty research will illustrate this work.

Representative student projects include creek restoration strategies for a neighborhood in Gainesville to allow the waterway to accommodate greater stormwater volume and reduce flooding and erosion during storm events; stormwater detention designs for the Cultural Plaza campus gateway utilizing highly sculpted landforms to showcase the aesthetic potential of stormwater management; rain garden designs as a pre-treatment to a sinkhole on campus for collecting, slowing, filtering and cleansing stormwater via created riparian wetland designs using native aquatic vegetation, that also provides waterfowl food and soil stabilization.

Community planning projects addresses the integration of low impact development by providing a holistic approach to land planning from the early stages of environmental assessment, clearing strategies to limit impacts to natural systems, integration of new architectural conventions, and site designs at the master plan and small site scales.

Faculty research such as model sustainable community design green roof design is integrated into the classroom through these projects and will be documented in the poster.

Keywords: Low impact development; water quantity & quality; rain gardens; and aesthetic stormwater treatment design.