



# Green Infrastructure & Stormwater Management CASE STUDY

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## West Hall

**Location:** Elmhurst College, Elmhurst, IL

**Client:** Elmhurst College

**Design Firm(s):** Wight & Company

**Landscape architect/Project contact:** Jay Womack, ASLA, LEED AP

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**ASLA Chapter:** Illinois



Photo: Wight & Company

## Project Specifications

**Project Description:** West Hall, a 170-bed residential hall, is the newest addition for Elmhurst College and has revolutionized how the campus thinks about sustainable stormwater and native plants. The new building has created new curriculum for the chemistry department and Dr. Gene Losey who gathers water samples from below the permeable paver parking lot, solved water issues for neighbors adjacent to the project site, adds to the colleges arboretum status, and has brought about opportunities for students to become more involved with green issues on the campus.

**Project Type:**

Residential hall at the university  
Part of a new development

**Design features:** Rain garden, bioswale, cistern, and porous pavers.

**This project was designed to meet the following specific requirements or mandates:**

Local ordinance

**Impervious area managed:** 5,000 sq/ft to 1 acre

**Amount of existing green space/open space conserved or preserved for managing stormwater on site:** less than 5,000 sq/ft. The site for this project is very urban-oriented and was built almost exclusively where asphalt parking lots once resided.

**The regulatory environment and regulator was** supportive of the project.

**Did the client request that other factors be considered, such as energy savings, usable green space, or property value enhancements?** Parking stalls for students are invaluable so the project had to be designed to accommodate as many parking stalls as possible without sacrificing area for detention.

**Cost & Jobs Analysis**

**Estimated Cost of Stormwater Project:** \$500,000-\$1,000,000 (Public funding: None)

**Was a green vs. grey cost analysis performed?** No.

**Cost impact of conserving green/open space to the overall costs of the site**

**design/development project:** This project was not about preserving green space on this particular site, it was about handling the 100-year storm event in a way that eliminated any above ground detention. Which it did through porous concrete paving parking lots, rain gardens, bioswales, native plant restoration, and a 35,000 gallon cistern that collects roof runoff for irrigation.

**Cost impact of conserving green/open space for stormwater management over traditional site design/site development approaches (grey infrastructure)?** Did not influence costs.

**Number of jobs created:** Not available

**Job hours devoted to project:**

Planning and Design: >1,000

Construction: >1,000

Annual Maintenance: TBD

## Performance Measures

### Stormwater reduction performance analysis:

The entire 2-year storm event is retained on site to infiltrate into the ground.

**Community & economic benefits that have resulted from the project:** The campus is embedded in the community and works closely with neighbors to be open and useable by anyone. This project had to show that a new building and a perception that additional parking lots would not increase localized flooding issues for next door neighbors.

## Project Recognition

ACEC - Merit Award; The Conservation Foundation's Sustainable Design Award

## Additional Information

Links to images: <http://public.elmhurst.edu/news/ecscene/31102584.html>

<http://www.theconservationfoundation.org/BMPSeminar2010/site%20230%20Elmhurst%20College.pdf>

West Hall and its associated stormwater management systems helped alleviate localized flooding for neighbors. The project was also a collaboration of numerous disciplines and would not have been built if the landscape architect and civil engineer did not work together to solve a huge issue with the storage of stormwater.