



# Green Infrastructure & Stormwater Management CASE STUDY

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## Cleary Courtyard

**Location:** La Crosse, WI

**Client:** Western Technical College

**Design Firm(s):** RDG Planning & Design

**Landscape architect/Project contact:** Ryan Peterson, ASLA

**Email:** [rpeterson@rdgusa.com](mailto:rpeterson@rdgusa.com)

**ASLA Chapter:** Iowa



### Project Specifications

**Project Description:** Located in La Crosse, Wisconsin, Cleary Courtyard is located in an ultra urban setting on the campus of Western Technical College. Utilizing the surrounding context, the RDG Planning & Design team took an ecological systems-based approach by celebrating the endemic environment indicative of the surrounding landscape and bluffs. Over the course of the project, the design team worked with the college and the city to implement a comprehensive systems-based approach to managing stormwater utilizing a treatment train of best management practices. Today the Courtyard is widely acclaimed for its success as an urban

plaza and the integration of sustainable practices – ultimately helping the City comply with three of the six MS4 permitting requirements for EPA designated phase II communities and showcasing the college's commitment to sustainability.

**Project Type:**

Institutional/education  
Part of a redevelopment project

**Design features:** Bioretention facility, rain garden, porous pavers, curb cuts, porous asphalt, street side storm water planters, native plantings, and soil quality restoration.

**This project was designed to meet the following specific requirements or mandates:** State statute, local ordinance, developer/client preference



**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:** 5,000 sq/ft to 1 acre

**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?** Yes. The design team focused on using local materials - with 95% coming from within 233 miles, energy efficient and safe lighting using LED technologies, and an increased amount of “functional” open space.

**Cost & Jobs Analysis**

**Estimated Cost of Stormwater Project:** \$100,000-\$500,000 (Public funding: State, regional)

**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:** Since much of the site was already previously developed, Cleary Courtyard's project costs were not significantly affected by the preservation of open space. Through the use of best management practices, the project team was able to maximize the effective hardscape and softscape areas to actually eliminate much of the traditional grey infrastructure.

**Cost impact of conserving green/open space for stormwater management over traditional site design/site development approaches (grey infrastructure)?** Slightly reduced costs (1-9% savings).

**Number of jobs created:** 6

**Job hours devoted to project:**

Planning and Design: 3,961.25

Construction: 5,000

Annual Maintenance: 100

## Performance Measures

**Stormwater reduction performance analysis:**

1. Over 500,000 gallons of water will never enter the city's storm sewer on an annual basis.
2. The green streets concept is expected to reduce runoff by 78% or more.
3. Up to 66.5% of the particulate solids will be removed from stormwater that enters the planters.

**Community & economic benefits that have resulted from the project:** The college continues to grow at a record pace with a 9% increase in enrollment in 2010 . These students are seeking a destination for their higher education. The tranformation of Cleary Courtyard has helped make Western Tech a hot spot. The space has been used for "Rock the Block" community events featuring local bands to celebrate Oktoberfest in an alcohol-free environment. Additional events include plant sales, cookouts, food drives. Lastly, to help further the educational mission, Cleary Courtyard is being used as a learning laboratory for horticultural students to participate in planting, cultivating and maintaining the areas green space with hopes of one day providing an outreach and destination for local high school students.

## Project Recognition

Award of Excellence, Iowa Chapter of ASLA; Honor Award, Wisconsin ASLA

## Additional Information

**Links to images:** All photos from RDG - <http://www.rdgusa.com/projects/western-technical-college-cleary-plaza#/services/landscape-architecture>