



Green Infrastructure & Stormwater Management CASE STUDY

The Brewery

Location: Downtown Milwaukee, WI

Client: The Brewery Project, LLC

Design Firm(s): Arnold & O'Sheridan, Inc.

Landscape architect/Project contact:

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ASLA Chapter: Wisconsin



Project Specifications

Project Description: The Brewery is a 25-acre redevelopment site in Milwaukee's downtown; it was once the home of the Pabst Brewery. The Brewery Project places a great deal of emphasis on sustainability and decided to create a comprehensive stormwater management plan and integrate it into the project's streetscape. The site was originally 98% impervious and all of the site and roof stormwater entered directly into the combined sewer. Now all of roof and non-roof stormwater must empty into one of the sites BMP's to be infiltrated, cleaned and stored to be released to the combined sewer at a reduced flow rate. The BMP's consist of bioswales, tree lawns, tree islands and underground storage areas.

Project Type:

Mixed use

Part of a redevelopment project

Design features: Bioswale, green roof, downspout removal, porous pavers, curb cuts, tree lawns, and underground storage.

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

Local ordinance, developer/client preference

Impervious area managed: greater than 5 acres

Amount of existing green space/open space conserved or preserved for managing stormwater on site: Less than 5,000 sq/ft. Previously developed site 98% impervious created 2.5 acres of pervious surface (10%)

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? The inclusion of 3-4 pocket parks.

Cost & Jobs Analysis

Estimated Cost of Stormwater

Project: \$1,000,000-\$5,000,000 (Public funding: Regional, local, MMSD (Milwaukee Metropolitan Sewer District) Grant and City of Milwaukee TIF)

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: Not applicable - no existing green space/open space preserved.

Cost impact of conserving green/open space for stormwater management over traditional site design/site development approaches (grey infrastructure)? Significantly increased.

Number of jobs created: From design through construction completion approximately 20 jobs

Job hours devoted to project:

Planning and Design: 4,500

Construction: 8,000

Annual Maintenance: 80

Performance Measures

Stormwater reduction performance analysis:

72% of average annual rainfall is retained through infiltration on site. From the water that is not treated, 86% of TSS are removed before entering the combined sewer system and the flow rate is reduced by 25%.

Community & economic benefits that have resulted from the project: Increased property values, redevelopment of a former vacant neighborhood into a work, live and play community, increase in downtown population. Greater quality of live environment. Emerging business enterprises.

Project Recognition

LEED for Neighborhood Development Stage One Platinum

Additional Information

Links to images: www.thebrewerymke.com