



Green Infrastructure & Stormwater Management CASE STUDY

Rogers International Environmental K-8 Magnet School

Location: #2 Blachley Street, Stamford, CT

Client: City of Stamford Board of Education

Design Firm(s): Tai Soo Kim+Partners, Architect, CR3LLP Landscape Architects, Nitsch Eng., F&O Eng.

Landscape architect/Project contact: CR3 LLP Site Planners, Landscape Architects, Simsbury, CT Henry W. Withers, ASLA, PIC

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ASLA Chapter: Connecticut

Project Specifications

Project Description: Known as the "green school for global citizens" the environment is used as the integrating context for learning across all subject areas. Central to the planting design is native/adaptive species to avoid irrigation, as well as as needed irrigation for green roofs by cisterns/ rain water storage in basement and rain gardens which treat and filter stormwater for reuse.

Project Type:

Institutional/education

A retrofit of an existing property

Design features: Bioretention facility, rain garden, bioswale, green roof, cistern, downspout removal, porous pavers, and curb cuts. Implemented LID techniques, demonstration stream/wetland system for learning, existing basement under new building converted to storm water detention and rainwater harvesting.

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

State statute, local ordinance, to meet funding criteria

Impervious area managed: 1 acre to 5 acres

Amount of existing green space/open space conserved or preserved for managing

stormwater on site: 5,000 sq/ft to 1 acre. Combination of both, in particular an existing buffer to single family homes.

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. All were periodically considered during planning, design and construction by entire Team of Owner, Architect, Consultants Construction Manager, Trades etc.

Cost & Jobs Analysis

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

Was a green vs. grey cost analysis performed? Yes. Adapted both on site, where most effective. Grey and green were blended such as tying into piped on-street systems where required and green roof and softscapes as designed and built.

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

design/development project: A pragmatic balance was reached, based on budgets available and the positive help from the Construction Manager, allowing the green solutions to be used to best benefit the School's program for students, faculty, staff and community. The green values gained since opening day, Summer 2009, stand out already.

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

Slightly increased. Rogers School proves to be a worthwhile example of comparing old vs new, grey vs green. A balance in the naturalistic/humanistic dichotomy which produced a state of the art new K-8 school which bodes well for many future design/built projects blending sustainable design, valid construction standards, intelligent programs and reachable budgets.

Number of jobs created: 800-1,000 construction jobs over 2 year period.

Job hours devoted to project: Not available

Planning and Design: Not available

Construction: Not available

Annual Maintenance: Not available

Performance Measures

Stormwater reduction performance analysis:

Not available

Community & economic benefits that have resulted from the project: The Rogers International Environmental K-8 Magnet School is where students engage in inquiry based learning units that focus on building global awareness. Although the application of scientific

skills lies in all subject areas, students are encouraged to ask challenging questions, to discover new ways of learning and to develop a sense of identity as global citizens in the 21st century

Project Recognition

Received AIA/CT 2010 Built Projects Award. Architect; Tai Soo Kim + Partners; Received 2010 Green Building Council Award

Additional Information

Links to images: Can be furnished upon request.

For this project, the importance of jobs created over a 2-year period is significant. This 106,000 square foot K-8 school produced 800 to 1,000 construction jobs, excluding design professionals, suppliers, fabricators and City Staff, etc. Add another 20-25 %. Just do the math on a project this size, on this same form and you will see the value of balance. Times 10 equals 8,000-10,000 jobs, times 100 equals 80,000- 100,000, etc. And this is just a school.