Green Infrastructure & Stormwater Management CASE STUDY

Davis Court

Location: San Francisco, CA

Client: The Gateway

Design Firm(s): RHAA, Sherwood Design Engineers

Landscape architect/Project contact: Manuela King and Jacob Millard

Email: jacob@rhaa.com
ASLA Chapter: No

Project Specifications

Project Description: This stone paved plaza drains to two linear slot drains running the entire length of the plaza. Stormwater is filtered through seven flow through planters and released into large underground infiltration basins filled with structural soil.

Project Type:

Multi-use private courtyard and public pedestrian corridor A retrofit of an existing property

Design features: Flow-through planters and underground infiltration basins.

This project was designed to meet the following specific requirements or mandates: Local ordinance, California stormwater requirements

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 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 client was interested in creating an open space that supported the multiple uses of the site as well as supported the public use of the space as a major pedestrian corridor in downtown San Francisco.

Case No. 290 Page | 2

Cost & Jobs Analysis

Estimated Cost of Stormwater Project: \$100,000-\$500,000 (Public funding: Not available)

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

Cost impact of conserving green/open space for stormwater management over traditional site design/site development approaches (grey infrastructure)? Significantly increased. Because this is a urban plaza, adding flow through planters and subgrade infiltration basins significantly increased construction costs.

Number of jobs created: approx. 7-10 design & 50 construction

Job hours devoted to project:

Planning and Design: approx. 3,500

Construction: 15,000

Annual Maintenance: approx. 32 hours per year

Performance Measures

Stormwater reduction performance analysis:

The infiltration system is designed to handle a 2-year, 24-hour storm event, at a minimum. Anything greater than the capacity of the infiltration system will be diverted into the storm drain system.

Community & economic benefits that have resulted from the project: Davis Court has been trasformed using high-quality contemporary materials into a flexible urban space for the local community and residences of the apartments and town homes that face the courtyard as well as a valuable amenity for patrons of local businessses (restaurants, stores, cafes) and the general public.