Green Infrastructure & Stormwater Management
CASE STUDY

City of Alexandria, 3rd Street Corridor Enhancements

Location: Alexandria, LA
Client: City of Alexandria
Design Firm(s): Jeffrey Carbo Landscape Architects
Landscape architect/Project contact: Project Manager - Shannon Blakeman, ASLA
Email: jcarbo@jeffreycarbo.com; sblakeman@jeffreycarbo.com
ASLA Chapter: Louisiana

Project Specifications

Project Description: Under the City of Alexandria's SPARC program, the 3rd Street Corridor was identified as an area in need of revitalization. A corridor enhancement project's goal is to renovate a once vibrant retail corridor. The project involves the development of streetscape elements to establish a distinctive character along the corridor and create positive destinations. Streetscape renovations will include upgraded drainage systems, new wider sidewalks, street lighting, new plantings, transportation shelters and additional ammenities. The plan will focus on developing a streetscape that will attract new businesses and enhance the surrounding neighborhood creating a more pedestrian friendly atmosphere for the residents. Suggestions for zoning and ordinance revisions to encourage more organized development in with Smart Growth principles to create a neighborhood that is walkable and sustainable.

Project Type:
Transportation corridor/streetscape
Part of a redevelopment project

Design features: Rain garden, bioswale, porous pavers, curb cuts, and bio-filtration using plants to filter stormwater before discharging to an underground system as a means of overflow.

This project was designed to meet the following specific requirements or mandates:
State statute and local ordinance; we worked within these requirements to provide a stormwater
solution to improve existing conditions.
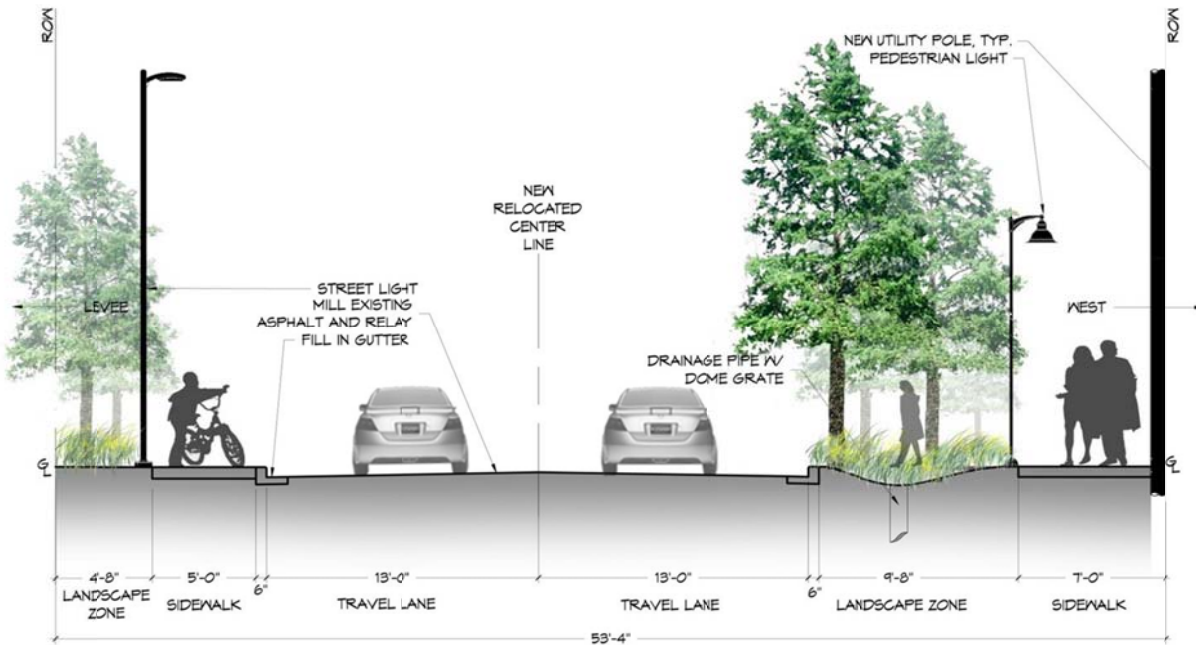
Impervious area managed: 1 acre to 5 acres

**Amount of existing green space/open space conserved or preserved for managing
stormwater on site:** less than 5,000 sq/ft. The existing streetscape allowed for no green areas.
In the new design we preposed adding bioswales behind curbs with curb cuts for stormwater
retention.

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**,** several enhancements were
incorporated in the design which will increase property values.

Cost & Jobs Analysis

Estimated Cost of Stormwater Project: 500,000-$1,000,000 (Public funding: Federal, local,
SPARC)

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 greenspace.

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). Streets have an existing drainage system that could not move water and is inadequate for existing conditions. We enhanced the existing system with raingardens to increase stormwater drainage capacity as well as reduce costs of replacing existing drainage system.

Number of jobs created: +/-30-40

Job hours devoted to project:
> Planning and Design: 5
> Construction: 25
> Annual Maintenance: 2
> Other: 5
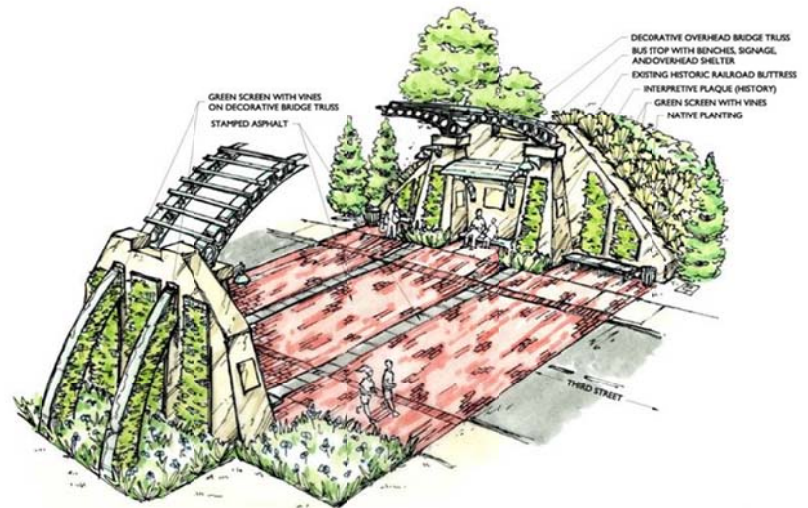
Performance Measures
Stormwater reduction performance analysis:
Data not available

Community & economic benefits that have resulted from the project: The streetscape enhancement will provide site amenities and increase property values as well as encourage new economic development and revitalization within the adjacent neighborhoods.

Additional Information
Links to images: www.jeffreycarbo.com

The bioswales and rain gardens proposed for the project allowed the city to accomodate a need for increased stormwater retention capacity without having to replace the existing subsurface infrastructure. This provided a reduction in overall costs of the implementation allowing the city to direct resources to other aspects of the project. The result is a project that better meets the needs of the community and surrounding users.