



# Green Infrastructure & Stormwater Management CASE STUDY

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## Southwest Missouri Office of Aging - Phase 1

**Location:** 1735 South Fort Avenue, Springfield, MO

**Client:** KenMar Construction

**Design Firm(s):** (Lead) Phase 2 Site Planning & Design, (Sub) White River Engineering

**Landscape architect/Project contact:** Matt Boehner, RLA, ASLA

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**ASLA Chapter:** Prairie Gateway

### Project Specifications

**Project Description:** A three phase development to allow for future building additions to existing facility.

- Phase 1: Parking lot addition on west side of existing building. Utilizing rain gardens, zero curb construction, and native plants. (currently under construction)
- Phase 2: (Awaiting funding) Eliminate existing parking on east side of building to provide space for future building addition. Construct outdoor plaza and additional rain gardens to collect 100% of future runoff.
- Phase 3: (Estimated start 2014) Addition to existing facility. Green roof is proposed.

### Project Type:

Non-profit

Part of a new development

**Design features:** Bioretention facility, rain garden, and zero curbs for landscape islands in parking lot.

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

Developer/client preference - project was less than 1 acre, thus did not meet mandatory water quality 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 in favor of the progressive nature of the concept presented during the preliminary planning stages and that it would make future phased development less costly.

## Cost & Jobs Analysis

**Estimated Cost of Stormwater Project:** \$10,000-\$50,000 (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:** Eliminating concrete curb/gutters reduce costs, as site grading could follow the natural terrain.

**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:** Not available

**Job hours devoted to project:**

Planning and Design: 45

Construction: 80

Annual Maintenance: 10 (estimated)

## Performance Measures

**Stormwater reduction performance analysis:**

100% of all stormwater runoff will pass through green space prior to entering regional storm water system.

## Project Recognition

State of Missouri