



**ST LOUIS**  
*Historically & Dynamically*  
**SUSTAINABLE**

*Sustainability Initiatives in the City of St. Louis*

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**T**hanks to the outstanding generosity of the Gateway Foundation, two once-underutilized blocks of St. Louis City's Gateway Mall linear urban park are now a stunning celebration of both art and sustainability. Opened on July 1, 2009, Citygarden is a dramatic new addition to the City's and the nation's civic and artistic fabric. The innovative urban oasis delights and educates residents, workers and visitors of all ages, with minimal environmental impact: rain gardens, green roofs and native plants flourish, and an engaging sculpture garden contributes to Citygarden's sustainability.

**Rain Gardens**

Citygarden has six separate rain gardens that cover more than 5,000 square feet. They collect and filter stormwater from two-thirds of the site's surfaces. Rain gardens intercept, store and filter runoff rather than allowing it to flow directly into storm drains. The soil increases absorption of

water and regenerates groundwater. Rain gardens help prevent erosion, water pollution and flooding, reducing the incidence of water-soaked roots, soil nutrient loss and insufficient soil oxygenation that normally plague urban parks. Citygarden's sophisticated drainage techniques and rain gardens place it in the vanguard of sustainable urban parks. During construction, existing soil was replaced with native, sand-based "engineered soils," designed by soil scientists to minimize compaction and maximize drainage over the long term. An additional layer of pea gravel under Citygarden's trees helps retain moisture and prevent topsoil from eroding. Stormwater drains to the rain gardens on site. Citygarden's soil and subsurface foundations demonstrate an amazing ability to absorb rainfall and reduce stormwater impacts.

**Green Roofs**

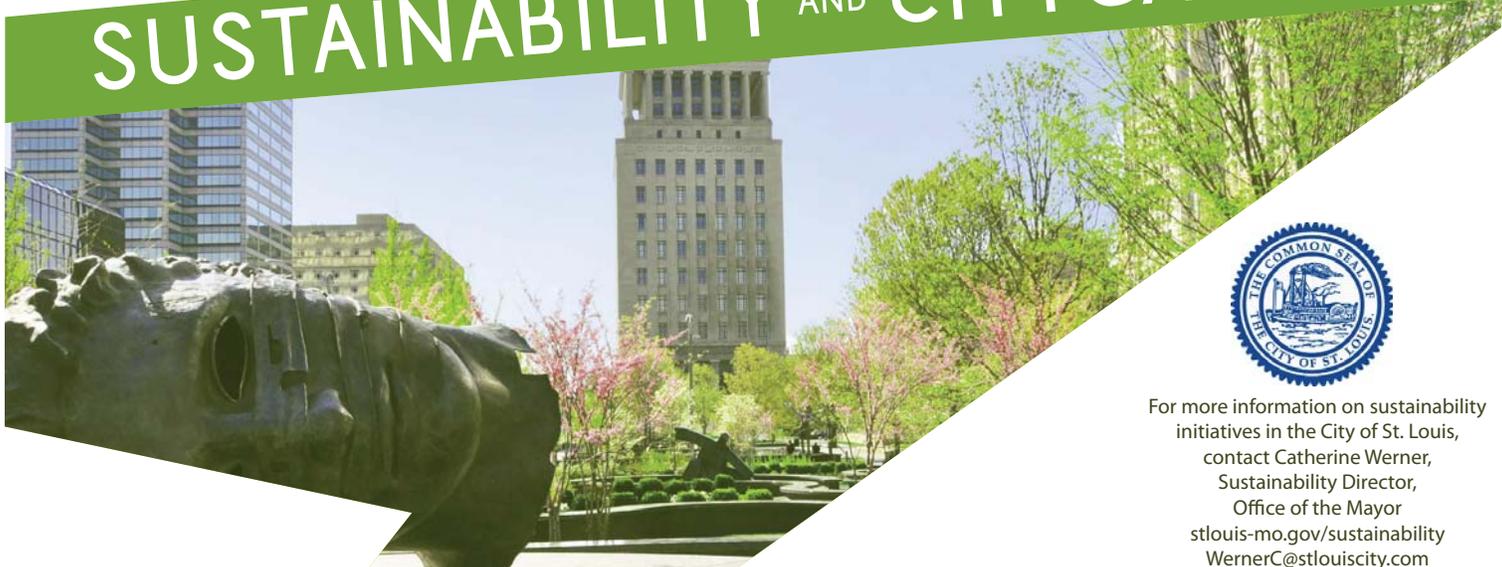
Hardy sedum plants bedeck the roofs of the two buildings on the site: the restaurant building and the maintenance structure. Their attractive buds and foliage provide a pleasing aesthetic for spectators, as well as numerous environmental benefits. The sedum plants capture rainwater and, through the daily process of dew

formation and evaporation, help keep the city cooler during hot summer months. Green roofs also reduce the "Urban Heat Island Effect" caused by hardscape surfaces that reflect solar radiation as heat and contribute to higher ambient temperatures. The green roofs also filter the air moving across them, reducing dust and ozone and providing cleaner air for everyone to breathe. One square meter of green roof can remove up to 4.4 pounds of airborne particulates from the air each year, depending on the type of foliage. And green roofs are expected to last almost twice as long as conventional roofs, conserving materials and adding yet another aspect to Citygarden's sustainability.

**Natural and Geological History**

At Citygarden, indigenous plants abound. Native species such as Switchgrass, Cardinal Flower, Ironweed and Culver's Root are naturally suited to the conditions of the region and require minimal water or additives to thrive. Over the long term, climate-adapted plants are more likely to flourish, without adversely affecting the environment with residue from harmful pesti-

**SUSTAINABILITY AND CITYGARDEN**



For more information on sustainability initiatives in the City of St. Louis, contact Catherine Werner, Sustainability Director, Office of the Mayor  
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## SUSTAINABLE FEATURES MAP KEY

- Rain garden
- Green roof
- Recycled water
- ◆ Native plant species

cides and fertilizers. Citygarden was designed to reflect more than just the local vegetation -- the layout of the site represents the geography of the St. Louis region. Three bands of trees and stone embody three major local geological features: the Northern River Bluffs, the Middle Floodplain and the Southern River terrace. These subtle representations anchor Citygarden in its surroundings and give the garden a real sense of place.

### Water Recirculation

Visitors of all ages will appreciate Citygarden's three fountains and splash plaza with 102 vertical jets. Side drains capture the water for reuse. This recycling system limits water consumption and helps conserve this precious resource.



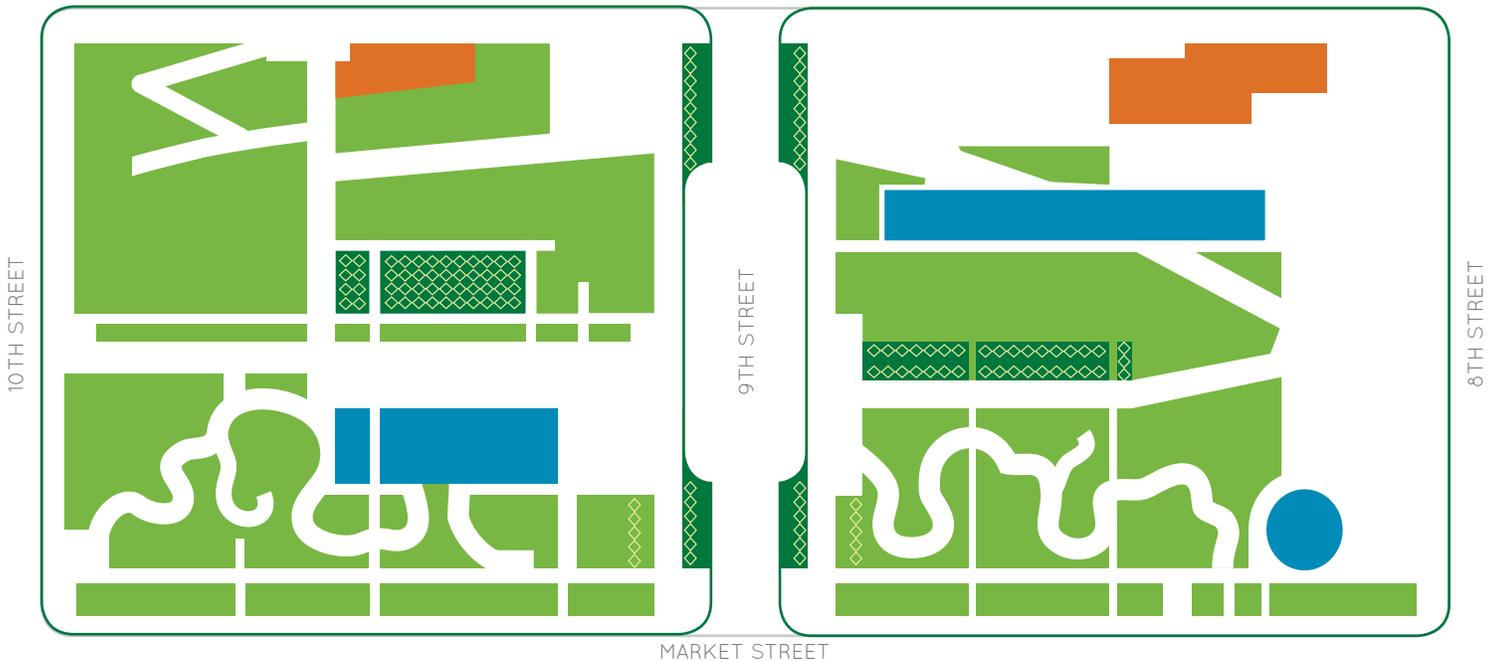
### Vibrancy in the Community

Engaging with the art is both educational and culturally appealing. Citygarden creates vibrancy and provides those who live, work and play in the City the opportunity to experience the arts in a unique urban space.

Interaction with the sculptures is actually encouraged here. Children are welcome to climb on the white RABBITS or play on TAI-CHI SINGLE WHIP. Frequently there are people sticking their heads out of the "eyes" of EROS BENDATO or posing for wedding photographs at Bernar Venet's ARCS.

## Sustainable Features of Citygarden

CHESTNUT STREET



MARKET STREET

**Partners:** Citygarden is the product of a partnership between the City and the Gateway Foundation: the local nonprofit designed and constructed this new \$30 million public park as a gift to the City and is providing ongoing maintenance. The City provided the approximately 2.9 acres of park land and is providing utility services for the garden. The City expresses sincere thanks to the Gateway Foundation for one of the coolest and most fabulous urban parks in the country and for setting a new standard for downtown's public spaces.

For more information on Citygarden, contact:  
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