Water Quality Demonstration and Educational Program for Main Street Little Rock

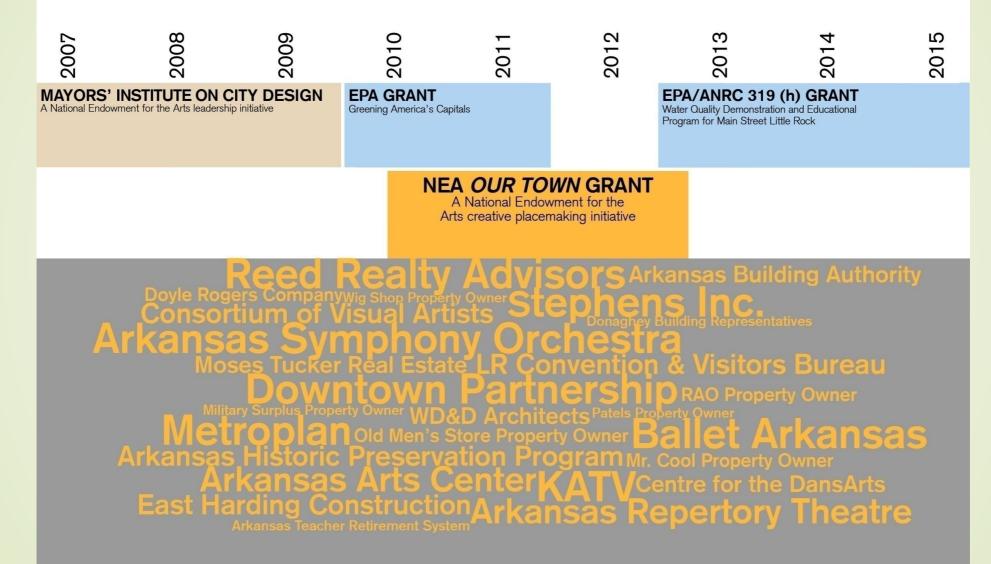
ANRC 2015 Annual Nonpoint Source Stakeholder and Project Review Meeting







CREATIVE CORRIDOR INITIATIVES Stakeholder Participation





GREENING AMERICA'S CAPITALS LITTLE ROCK, ARKANSAS



G DOWNSPOUT RAIN GARDEN

Runoff from the roofs of Main Street buildings could be directly connected to rain gardens on the street through downspouts. If attractively designed, the downspouts could be public art. These artistic downspouts would create a dramatic visible sign to visitors and residents about the presence of water in the city and how it is managed from roofs to streets.

GREEN ROOFS

Green roofs are important in retaining and detaining stormwater, reducing the ambient air temperature (or urban heat island effect) in the City, and reducing the heating and cooling needs of a building. Over time, buildings on Main Street could be retrofitted to include green roofs using lightweight, drought-tolerant plants such as sedums and grasses. Green roofs are environmentally beneficial for the reasons listed above, however, even the most minimal green roofs will have some impact. Each structure and roof would need to be evaluated and the expense of retrofitting or engineering for a new green roof weighed against the environmental benefit.

PERMEABLE PAVERS

Permeable pavers could provide structured surfaces for on-street parking, let stormwater percolate into the ground and into nearby rain gardens, and make the street more attractive.





THE CREATIVE CORRIDOR A Main Street Revitalization



University of Arkansas Community Design Center + Marlon Blackwell Architect for The City of Little Rock

VEGETATIVE FILTER STRIP:

The plants used on the slope are not just ornamental. They help filter pollutants and debris, and they slow the run-off of rainwater.

RAIN GARDEN:

The plantings in this flat area serve as a rain garden. The rain garden is part of a system of measures that treat the rainwater as it runs off, filters pollutants and removes debris from the water, and helps to store water.

Different sizes of rock help to filter pollutants, while helping to store rainwater.

200 Block

The concrete used in the curb and gutter is permable, which allows the rainwater

PERMEABLE CONCRETE

to filter through it instead of running down the gutter and into the drain inlets. This process helps to store and slow down the rainwater.

PERMEABLE PAVERS

Parking spaces in this area are made of permeable pavers that allow the rainwater to filter through them. This process helps to store and slow down the rainwater. Bio-Retention areas like this shallow basin help to slow and filter the run-off using a special mix of soil.

> Perforated drains carry rainwater to existing storm pipes, but with a lower flow than with conventional pipes.

QR CODE



Little Rock Main Street Water Quality Demonstration Project





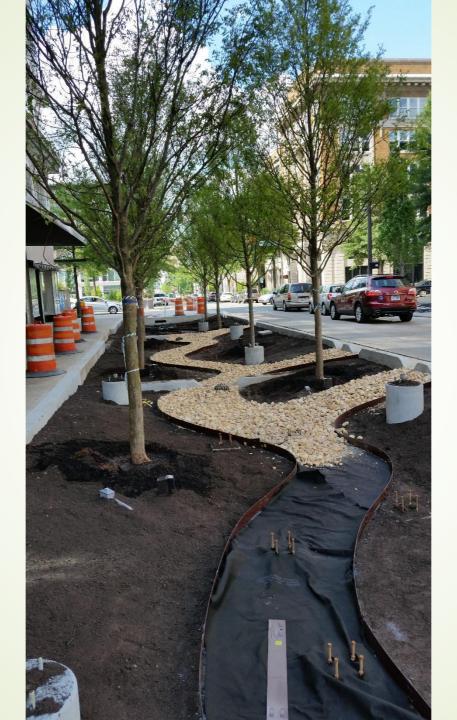


WEBSITE

















Public Education Component





Challenges

- Weather!!!!!!
- Maintenance Issues
 - Cigarette butts
 - Leaves
 - Loose gravel
 - Permeable curb and gutter not good for parallel parking
 - Steep learning curve for construction (silva cells, for example)

Advice

Public Acceptance

- High Profile Project = High Criticism
- Educate, Educate, Educate

