

# Unity P L A Z A

A life enriching urban park uplifting and electrifying our community consciousness



studio  
interiors

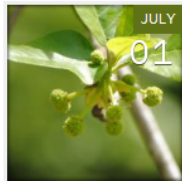
# Great Expectations...

# unity

## P L A Z A

A life enriching urban park uplifting and electrifying our community consciousness.

Home » Leadership » Countdown #29 to Unity Plaza Opening ~ NE Fla Botanical Garden & River Relationship Discussed



### TAGS

CHRIS FLAGG CITY OF JACKSONVILLE FLAGG DESIGN STUDIO

JACKSONVILLE FLORIDA NORTHEAST FLORIDA BOTANICALS RIVERSIDE AVENUE

UNITY PLAZA

## COUNTDOWN #29 TO UNITY PLAZA OPENING ~ NE FLA BOTANICAL GARDEN & RIVER RELATIONSHIP DISCUSSED

POSTED BY JEN JONES ON JULY 1, 2014 IN LEADERSHIP, PLAZA PROGRESS REPORT, PROGRAMMING PLANS, UNITY PLAZA SPONSORED EVENTS, UNITY PLAZA STRATEGIC & COMMUNITY PARTNERS, UNVEIL OF UNITY PLAZA TO JACKSONVILLE | LEAVE A COMMENT



Upon opening late this year, Unity Plaza will be an urban park and amphitheater located along Riverside Avenue largely inspired in both event programing and aesthetics by our native environment and its proximity to the St. Johns River. Unity Plaza will be a showcase of Northeast Florida native botany, the foundation of the park's landscaping, as well as be a home for the St. Johns Riverkeeper to publically explore the sensitivity of our river with Jacksonvillians of all ages through events and campus signage.

Unity Plaza will feature a lush, urban botanical garden, both bee and butterfly friendly, on the 12,000 square foot corner of Forest and Magnolia Streets. There it will highlight perennial and annual flora, ground cover, vine plants, shrubbery and trees in order to demonstrate to the public the stunning opportunity and feasibility of planting with natives. For example, flowering plants such as the White Tupelo Tree, famous for its honey and found along the shores of streams and lakes in St. Johns County and a prime nectar source in Florida will be found among its gardens.

Research, design and planning for this project will be led by downtown advocate and award winning landscape architect Chris Flagg. As shared by Katherine Hardwick on Downtown Vision's dynamic blog ([downtownjacksonville.org](http://downtownjacksonville.org)), "Chris Flagg is a true Downtown champion. His firm, **FLAGG Design Studio, LLC**, specializes in community planning, urban design and campus master planning. He is past chair of DVT's **board of directors** and has served on multiple committees including the Executive, "Great Streets," Advocacy and Green committees, the board of the **Cultural Council of Greater Jacksonville** and the **Office of Economic Development's** Downtown Development Review Board. His professional involvement in Downtown development includes the redevelopment of Laura Street, lead designer on Friendship Fountain, the Laura Street Façade Improvement Grant Program and the redevelopment plans for the Southbank Riverwalk replacement."

Pre-planning for Unity Plaza included a 2007 \$4 million dollar remodel of the former 4:1 grade FDOT retention pond by land donor NAI Hallmark Partners to transform a 2 acre wasteland into a commanding, state-of-the-art water collecting and cleansing system for storm water runoff in Brooklyn, parts of Riverside and Downtown Jacksonville. The gardens will receive their irrigation from the pond waters while the St. Johns Riverkeeper will use Unity Plaza as a platform for river education utilizing the amphitheater and multiple events as new beacons for sharing the environmental protection needs of the St. Johns River and its value as a community asset.

SHARE THIS:

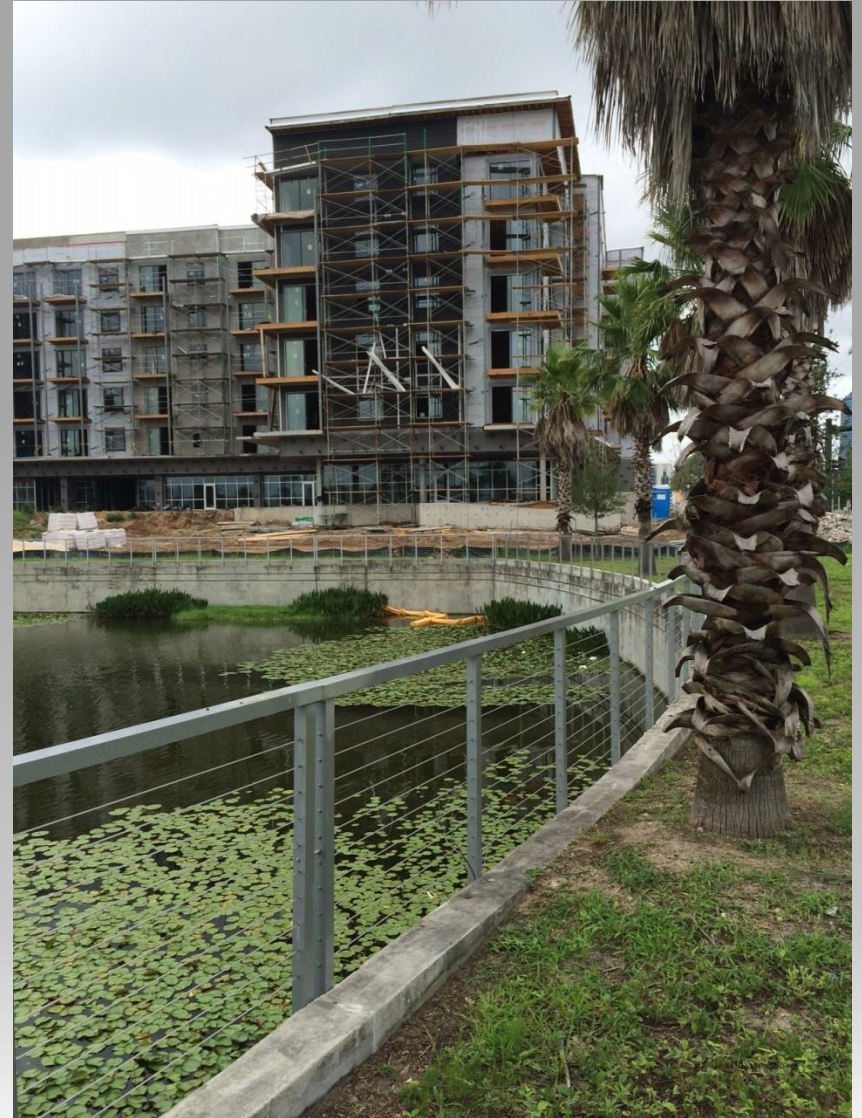
# Program

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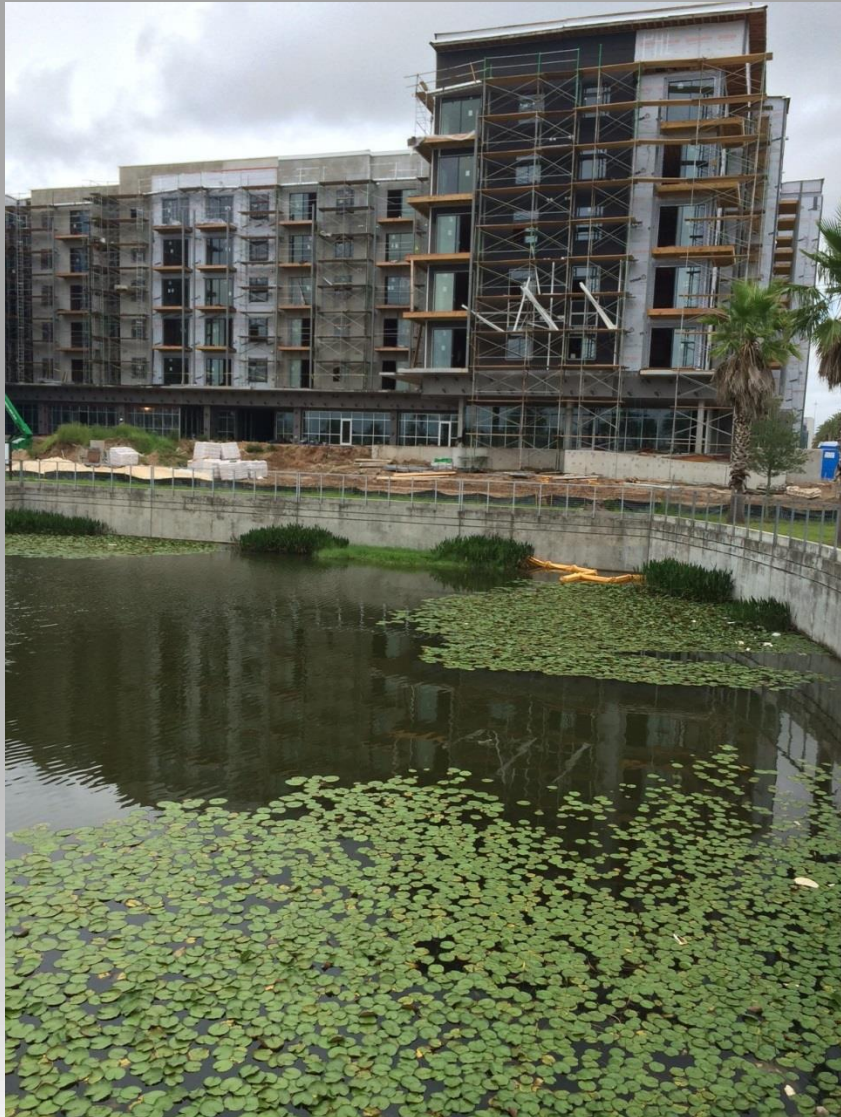
- Native Green
- Northeast Florida Native Botany
- St. Johns River Sensitivity
- Urban Lush
- Botanical Garden
- Bee and Butterfly Friendly
- Perennial & Annual Flora
- Groundcover
- Vines
- Tupelo Tree
- Educational
- Aesthetics of Florida Native Environment



# Existing Conditions



# Existing Conditions



# Existing Conditions







# Elements of Consideration



# Green roof

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# Green roof



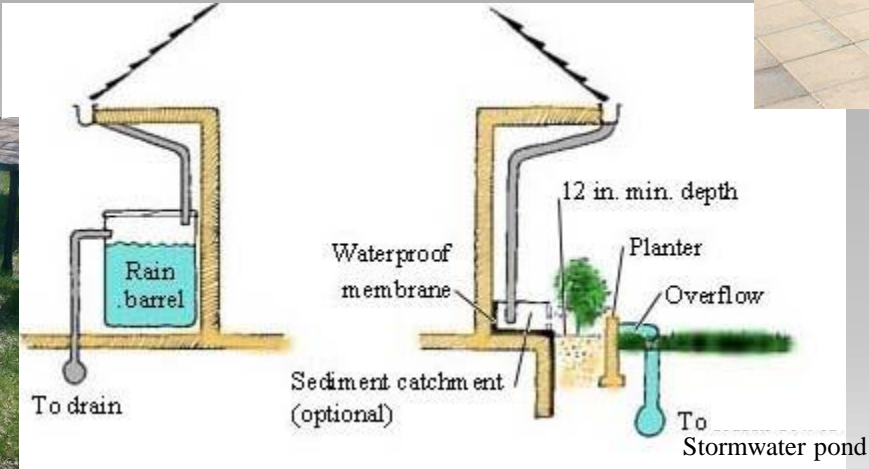
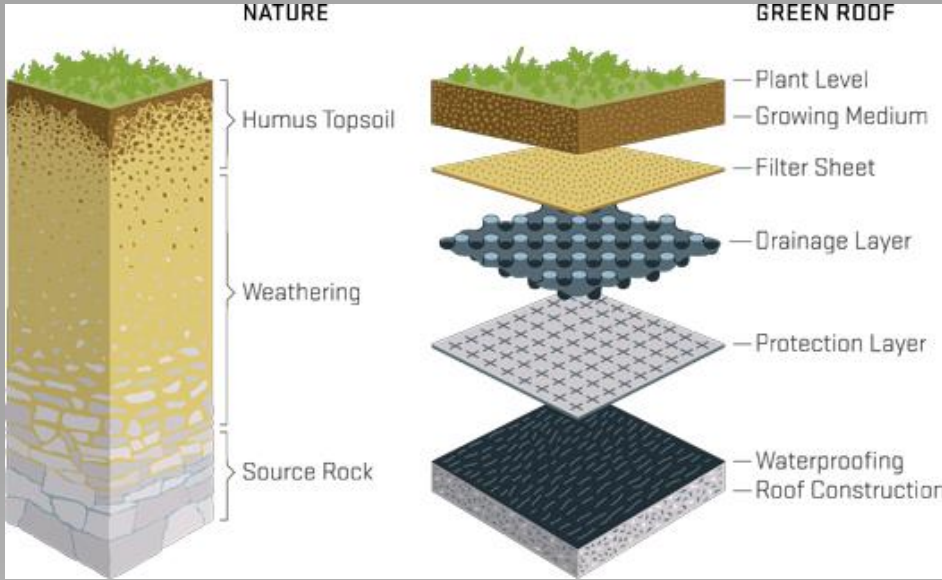
# Green roof



The Jacksonville Zoo



# Green roof design

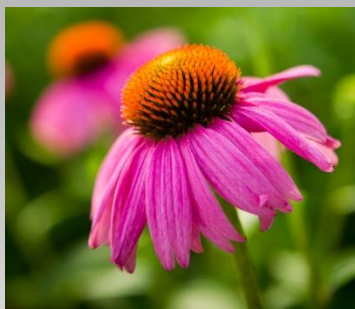


Rainfall collection system to support the green roof. Educational material to demonstrate process.



# Green roof design

Breaking Ground  
Contracting



# Green roof design

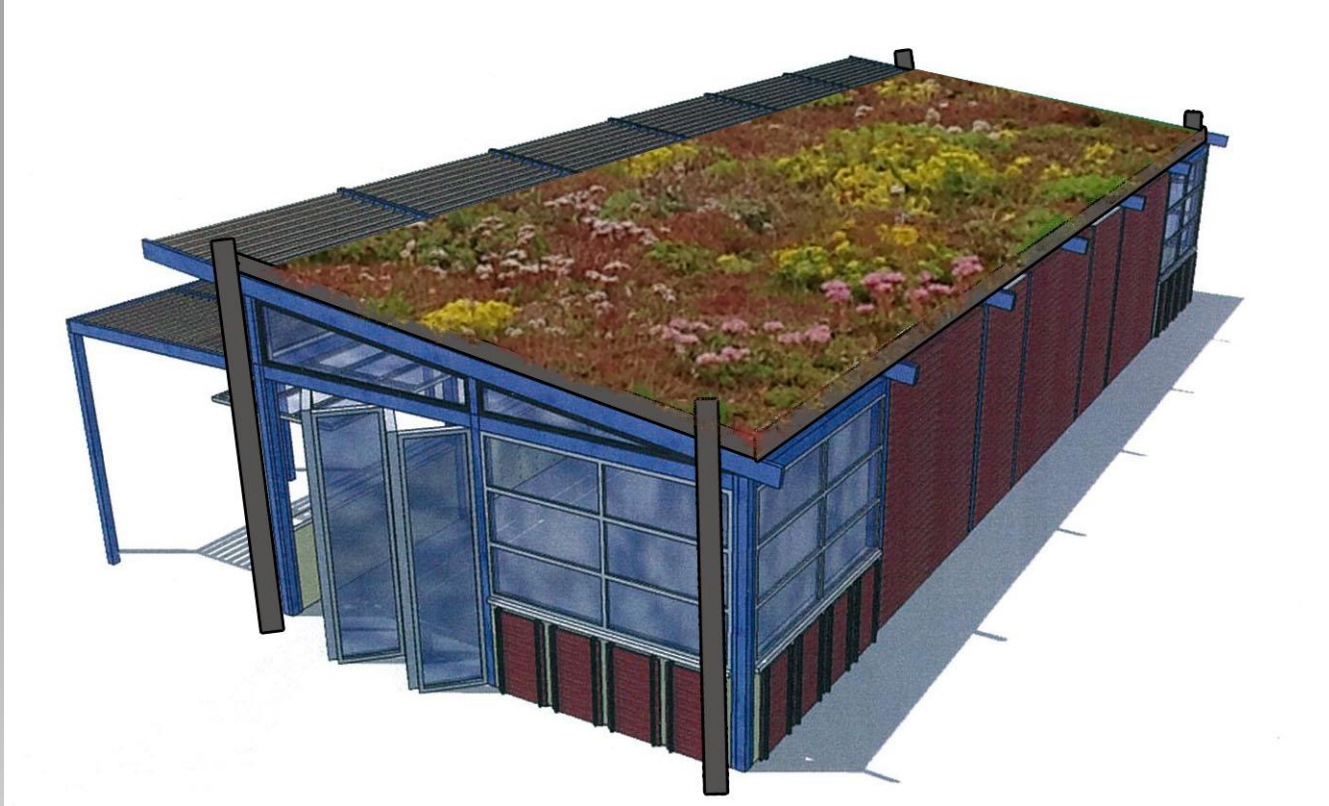


# Green roof cover design





# Green roof cover design



# Shade area



# Green wall



# Green wall



# Hardscape

## Tree Grates

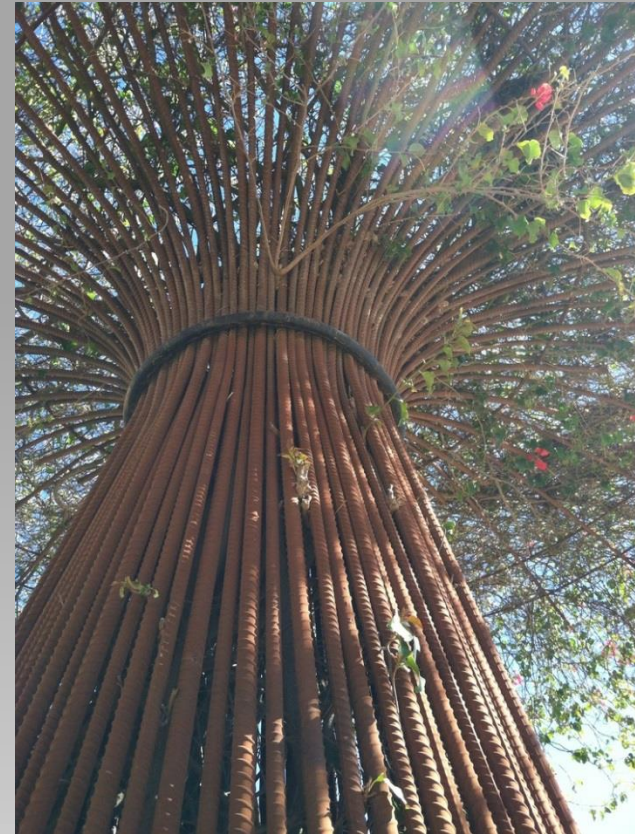


Educational



# Hardscape

## Tree Sculptures



# Hardscape

## Trench drain and area drains



# Educational Signage

## Stormwater Ponds

Working Hard for South Carolina Communities

Stormwater ponds benefit...

**People**

A focal point for a community or neighborhood offering nature-watching, birdwatching, and enjoyment that upgrades the look of the neighborhood.

**Water**

Collected runoff enters the pond, and pollutants and sediments settle to the bottom. Water leaves the pond cleaner than it entered.

**Flood Control**

Storage during rain events protects properties and neighborhoods from flooding.

**Community**

Increased water storage and water quality treatments are positive outcomes for people and wildlife. **REMEMBER, WE ALL LIVE DOWNSTREAM.**

**Benefits of a Living Shoreline**

- PROTECTS THE WATERWAY by trapping sediment, pollutants, pathogens and chemicals
- STABILIZES SHORELINES with deep root systems, reducing erosion and property loss
- SLOWS AND STORES RUNOFF, reducing risk of flooding
- Supports a **HEALTHY AND WORKING ECOSYSTEM** that protects your community investment
- CREATES SHADE for fish
- IMPROVES THE NATURAL LOOK and feel, which may increase property values

**Aeration**  
Some ponds include aeration devices which increase Dissolved Oxygen (DO) levels. More DO helps:

- Prevent fish kills
- Reduce unattractive algae blooms
- Reduce break down organic matter such as leaves
- Provide oxygen for fish and other aquatic animals

- Increase water clarity
- Improve odor

**Carolina CLEAR**



## How do rain gardens work?

- 1 Rainwater and stormwater collect in the depressed garden bed**
- 2 Plants absorb water**
- 3 Water filters through soil, replenishing our groundwater supply**
- 4 Any water that does not soak in exits the rain garden cleaner**
- 5 Plants grow, providing beauty and habitat in your yard**

Soil microbes pathogens, like





# Educational Signage

## What is Permeability?

Porous Concrete: S. Military Rd. & 272nd St. S.

**PERMEABILITY**

MOST

**FOREST**



**TURF LAWN**



**POROUS CONCRETE**



**ASPHALT**



LEAST

**D**ifferent surfaces have different levels of permeability. A forest floor has a very permeable surface due to the amount of biomass and roots that are able to slow down and soak up water. Traditional paved surfaces, however, do not allow water to absorb and are designed to quickly direct water into stormwater drains.

**P**ermeable paving surfaces are beneficial for urban trees. A porous surface allows essential air and water to reach the tree root zone, giving it more room to grow.



**P**ermeable paving such as porous concrete have holes that allow water to infiltrate through the sidewalk and into the ground. These surfaces are able to filter pollutants and recharge groundwater, rather than wash runoff untreated into a storm drain and into the nearest stream or lake.



**T**his intersection has porous concrete sidewalks. See if you can spot them as you walk around the block!



To learn more visit:  
[www.kingcounty.gov](http://www.kingcounty.gov)

The program is made possible with a grant from the Washington State Department of Ecology and Washington State Transportation Center.



© 2011 King County Department of Public Works

To learn more please visit the project and its rain gardens, please see our other sign!



# Stormwater Treatment

## Living Machines



Baima waterway in Fuzhou, China  
Eco-machine treating raw sewage  
12,000 plants and 20 native  
species along with a mechanical  
aeration and bacterial inoculation  
system.

# Stormwater Treatment

## Living Machines



Houtan Park of Shanghai Expo



Greywater Treatment in Tel Aviv

# Stormwater Treatment

## Aquatic mats



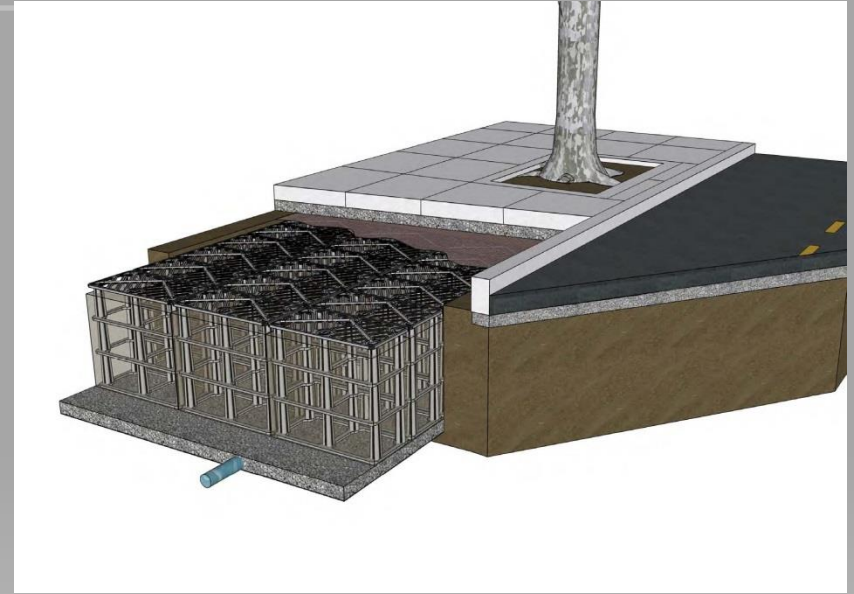
# Stormwater Treatment

## Aquatic mats



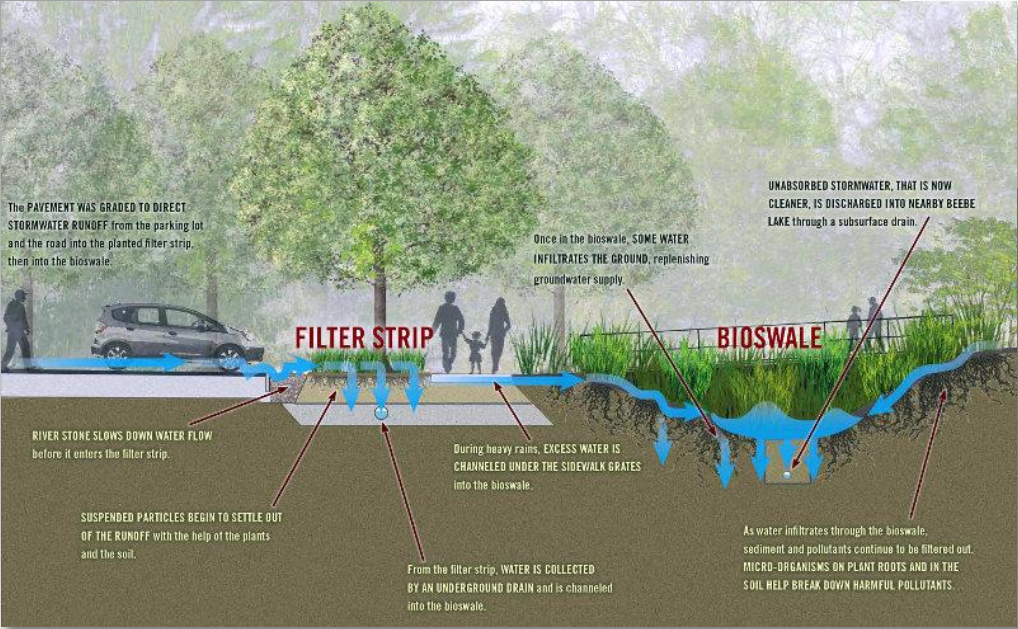
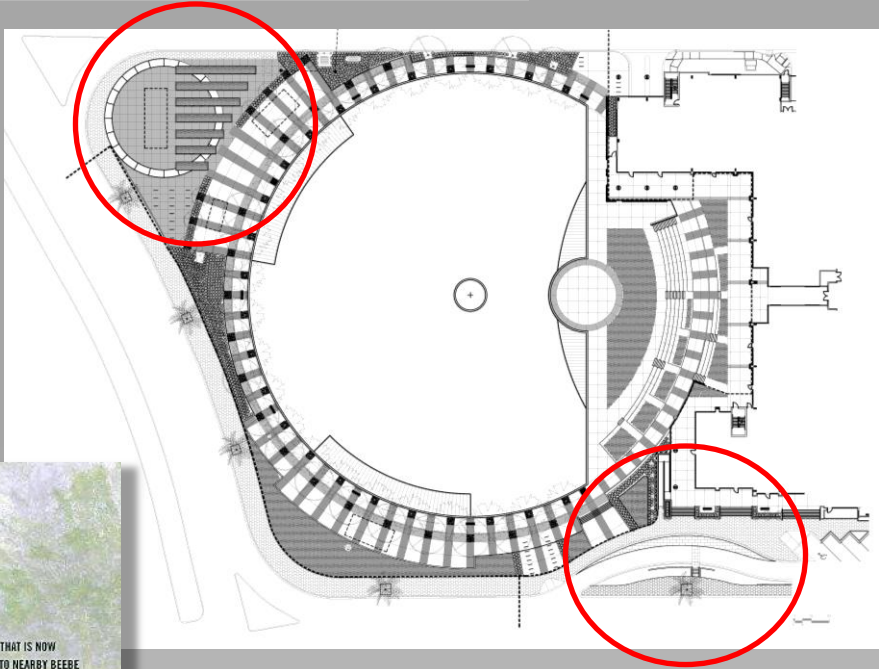
Gainesville's Tumblin Creek  
Stormwater Park

# Stormwater Treatment



Deeproot Silva Cell for stormwater collection prior to filtering to pond.

# Stormwater Treatment



Small design changes that make a difference and continue the educational experience within the space.

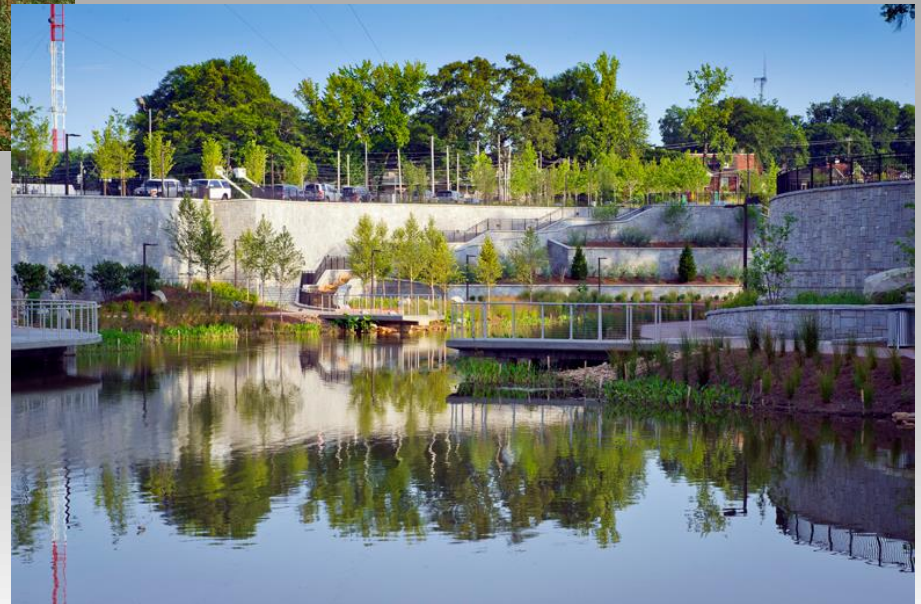


# Hardscape

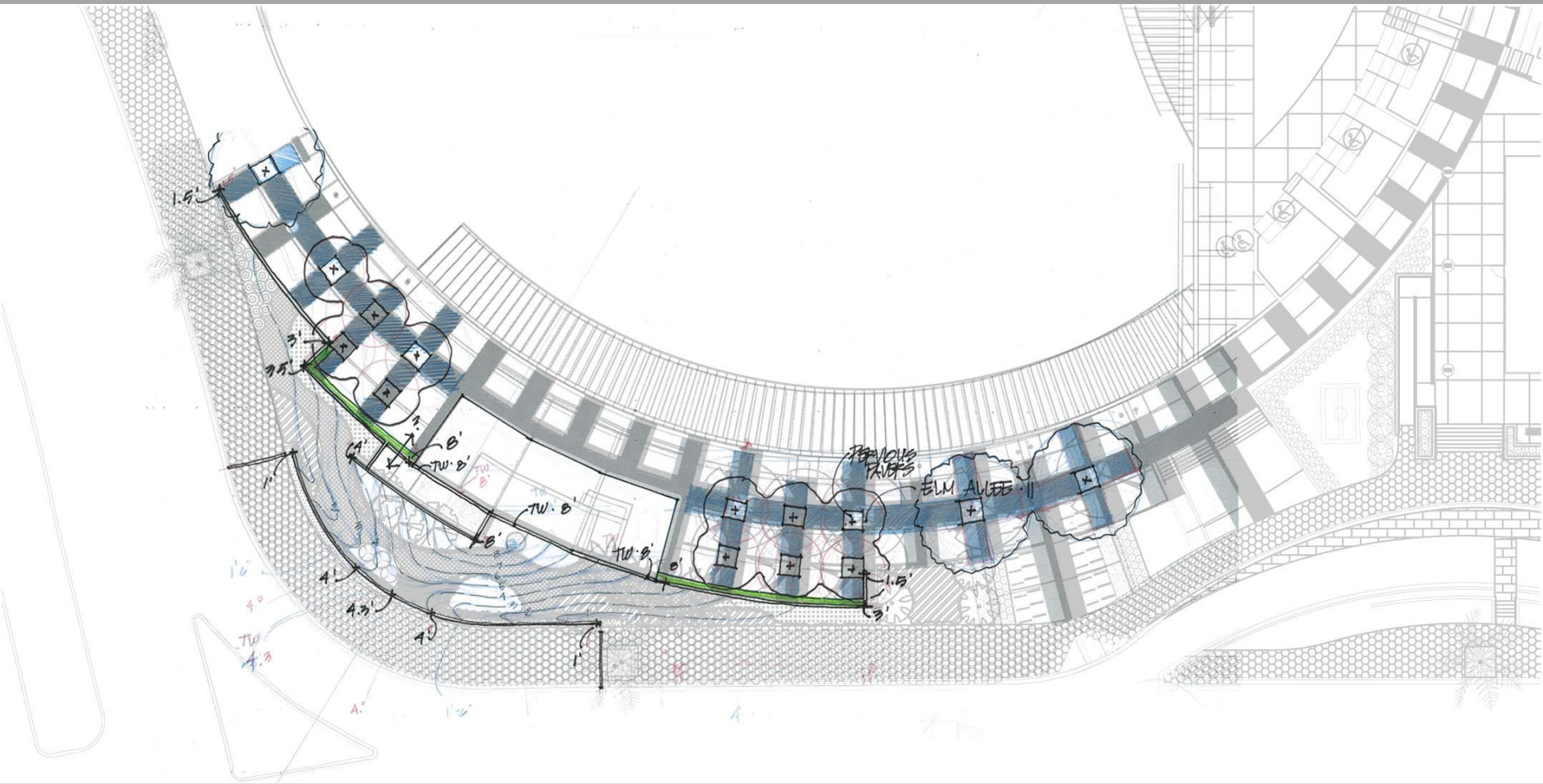
## Engaging the Water



Historic Forth Ward Stormwater park  
Atlanta, GA



# Phase One - Grading





# Landscape - Trees



CHICKASAW PLUM



WINGED ELM



LITTLE GEM MAGNOLIA



WEeping YAUPON HOLLY



SABAL PALM

# Landscape - Shrubs



SAW PALMETTO



SILVER SAW PALMETTO



GAURA



MUHLY GRASS



FAKAHATCHEE GRASS



DWARF WALTERS  
VIBURNUM



COONTIE

# Landscape - Groundcover



BEACH SUNFLOWER  
*Helianthus debilis*



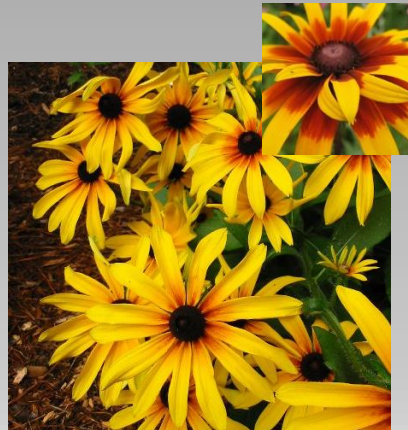
PERENNIAL PEANUT  
*Arachis glabrata*



Butterfly Weed  
*Asclepias*



BLACK-EYED SUSAN/ GLORIOSA DAISY  
*Rudbeckia hirta*

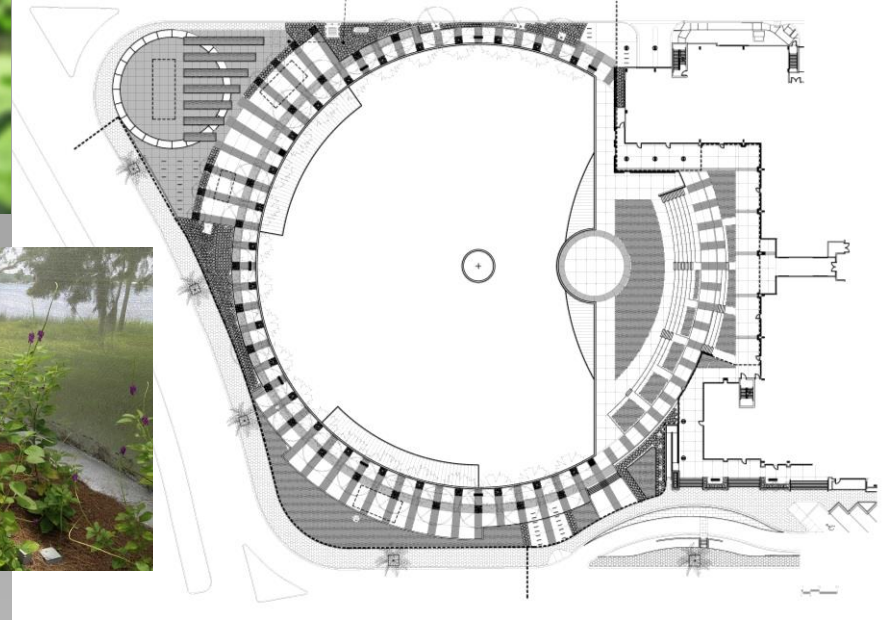


Creeping Phlox  
*Phlox subulata*

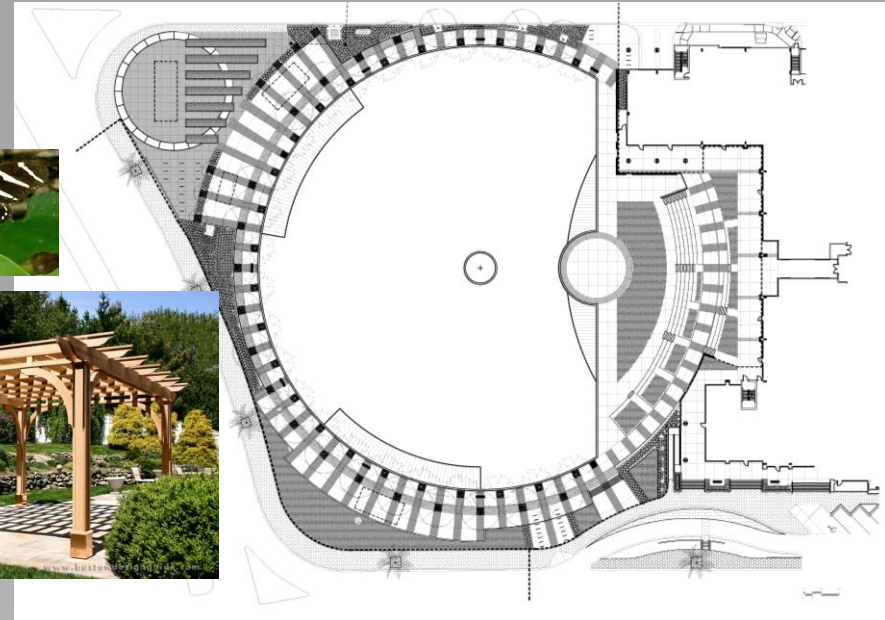
# Landscape - Butterfly Garden



Nectar and host plants



# Landscape - Butterfly Garden



Opportunity for a climbing plant structure over existing utility concrete pad



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