National Association of Flood & Stormwater Management Agencies

2023 Innovative Water Projects Award Application

For Projects Started after January 1, 2018, and completed by March 31, 2023

March 31, 2023, 11:59pm EST Deadline for Application Submission

Award Applications can only be submitted electronically at
nafsma2023awards@NAFSMA2022.onmicrosoft.com

If this is a partnered project, please list both entities and contact information for both.

Agency/Company: Freese and Nichols
Project Name: Rodney Cook Sr. Park at Vine City
Contact Name(s): Chantel Thompson, Freese and Nichols
Address: 801 Cherry St. Suite 2800 Email(s): Chantel.Thompson@freese.com
City: Fort Worth State: Texas Zip: 76102 Phone: 682-386-1802

For Public Agencies – Service Population: ☐ More Than 250,000 ☐ Less Than 250,000 (Check One)

For Private Firms – Number of Employees: ☑ More Than 30 ☐ Less Than 30 (Check One)

Please submit one combined PDF document with your completed application form, written description and supporting graphics. **Your PDF file size should be no larger than 5MB. Please note that all entries may be used in a video that will be widely distributed.**

Submission Criteria:

Submittal must be made digitally and contain each of the following:

1) Completed application form.
2) Written explanation of why the submission should be considered *(please limit to 3,000 words).*
3) Supporting graphics
   (limit is 10 items; examples: photos, diagrams, plans, charts, tables, etc.).

Please address the following points in the written explanation portion of your submission.

- Project Description (site plan or diagram required plus description; limit 500 words)
  - What was the purpose of the project – water quality, drainage or urban flooding, flood risk management, all, or other?
  - What were the requirements for the project? How did the project go above and beyond the requirements?
- What Were the Benefits – **Stress Unique Multi-Purpose Benefits** (limit 500 words)

  Examples of features and benefits that can be highlighted in project submissions include (but are not limited to) environmental justice, economic, water conservation, recreation, enhanced human health and well-being, endangered or protected species habitat creation, use of natural features and green infrastructure, and community enhancement.
  - What were the benefits?
  - What issues were addressed?
- Economic Impact (limit 400 words)
  - What constraints helped shape the project?
  - What was the cost of the project?
  - What were the funding sources for the project?
  - Is the project a retrofit or new construction?
- Outreach Efforts (limit 400 words)
  - How was the project promoted to other resource professionals and developers?
  - What creative methods were used to provide education to public audiences both short and long term?
  - How was outreach evaluated, and what audiences were most successfully reached?
  - Include copies of promotional pieces if applicable
- Results (limit 500 words)
  - What integration and/or coordination with various regulatory agencies was required for the project?
  - How does the project demonstrate an efficient use of resources?
- Maintenance (limit 400 words)
  - Describe: Monitoring , Upkeep, Costs and Reporting
- Conclusion (limit 300 words)
  - What constraints or challenges were overcome?
  - How was quality of life affected positively?

I consent that my application submission can be used in Awards Video. ☑

Please contact Dusty Williams: dustyw2015@gmail.com or 951-313-0257; Sunny Simpkins sunnys@nafsma.org or 503-705-4944 with questions.

RODNEY COOK SR. PARK AT VINE CITY

City of Atlanta, Georgia

National Association of Flood and Stormwater Management Agencies (NAFSMA)
2023 Innovative Water Project Awards

FREESE AND NICHOLS

PROJECT DESCRIPTION

Rodney Cook Sr. Park (Cook Park) in Atlanta showcases how engineering can improve community health and economic well-being by creating an intricate flood-control instrument that looks like a vibrant and inviting green space.

The park empowers the Vine City neighborhood — once home to civil rights icons— by transforming 16 acres of empty lots into a welcoming destination that benefits residents and encourages further revitalization. A collaboration of the City of Atlanta, The Trust for Public Land, community residents and engineering professionals, Cook Park weaves together innovative engineering with acres of amenities. This marvel helps to fulfill multiple City goals and applies green infrastructure to tackle long-standing challenges.

Freese and Nichols was hired by Atlanta's Department of Watershed Management to lead design of the stormwater infrastructure, including the flood-control pond and green infrastructure elements. HDR was hired by The Trust for Public Land to lead design of the park. Astra Group, Inc., was the general contractor.

Cook Park is the **LARGEST INVESTMENT** in a public park in Atlanta's Westside neighborhood in more than 50 years and a grand symbol of the neighborhood's tremendous legacy. This urban retreat alleviates wastewater overflows and dangerous flooding that had driven numerous residents from uninhabitable homes. The new infrastructure within, around and underneath the park helps implement the City's innovative stormwater management ordinance and lays the groundwork for future downstream relief projects.

Creativity, organization and cooperation took this ambitious project from dream to reality.

The design demonstrates how stormwater quantity and water quality issues can be addressed in a way that enhances a public space and uplifts an entire neighborhood. Even before designing the flood-control features, the Freese and Nichols team developed a stormwater master plan for the watershed, providing the City with a phased approach to more comprehensive improvements for flood resilience.

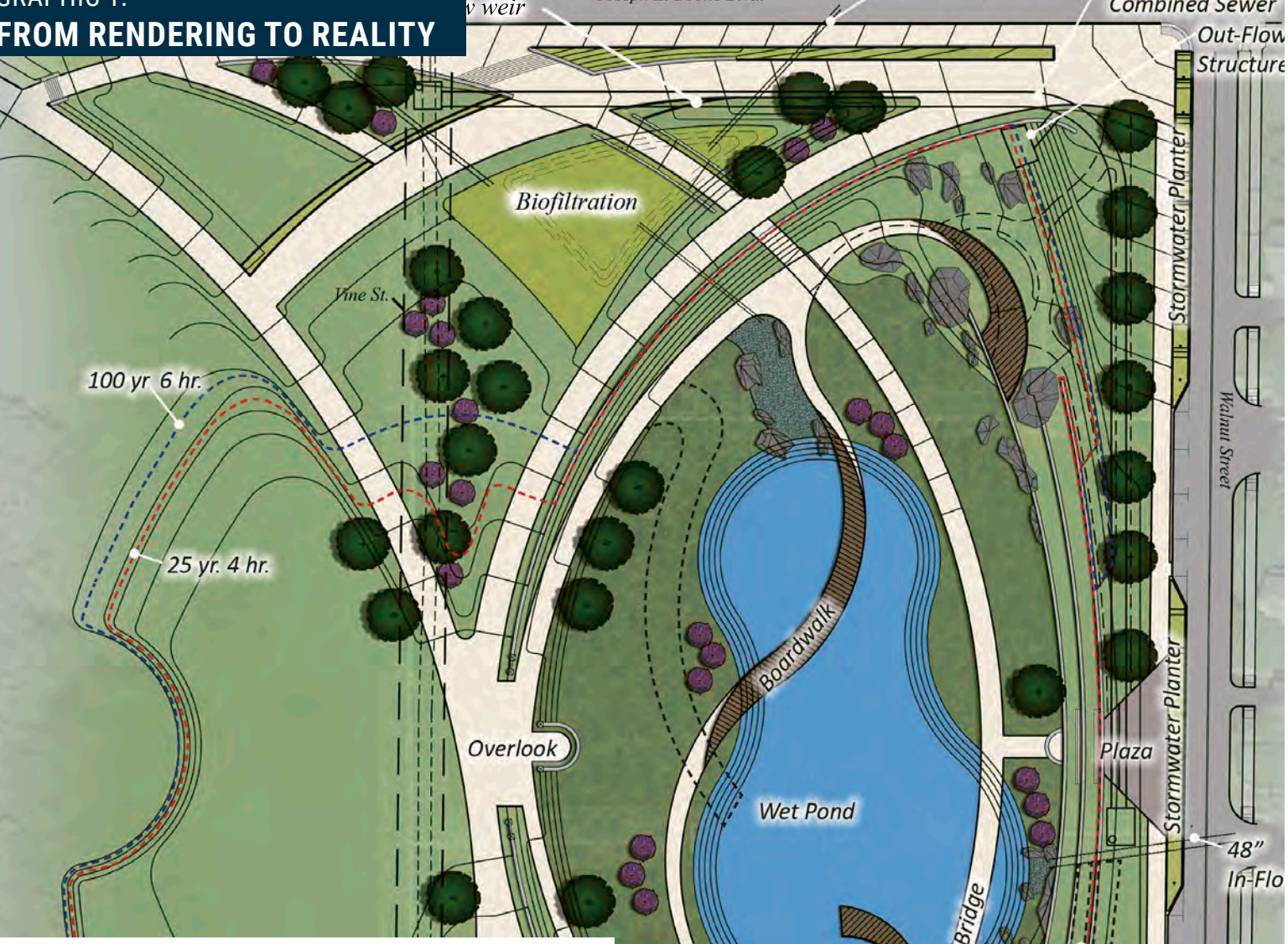
KEY COMPONENTS OF THE FIRST PHASE, WHICH INCLUDED THE PARK, ARE:

- **Green infrastructure,** including stormwater planters, trash racks, biofiltration ponds and an underground cistern to keep the flood-control wet pond at a normal 1-acre pool
- **New 24- to 60-inch-diameter storm drain piping** to convey street drainage to the pond
- **Rerouting of 1,100 LF of 96-inch combined trunk sewer** to accommodate the pond grading

These and an array of other elements are working for neighborhood safety and helping the city serve its residents more efficiently and equitably. Residents and visitors can enjoy a stunning park for recreation, socializing, building community, celebrating culture and enjoying an innovative resource that can help the community thrive.

GRAPHIC 1:

FROM RENDERING TO REALITY



WHAT WERE THE BENEFITS?

HOW THE PARK TRANSPIRED

Sitting west of downtown Atlanta, Vine City once was a thriving community, home to leaders including Rev. Martin Luther King Jr. and Maynard Jackson, Atlanta's first Black mayor. But the neighborhood was worn down by poverty, crime, abandoned homes and vacant lots. Homes in the low-lying areas often flooded when storms overwhelmed the City's combined sewer system.

In 2002, heavy rains and flooding damaged part of the neighborhood so extensively that residents couldn't rebuild. The City bought out the properties, but the land then sat fallow for more than a decade. The social, environmental and economic challenges required a comprehensive transformation.

As a dual-purpose park and watershed management project, Cook Park seamlessly meshes functional engineering features within a spectacular urban retreat. The infrastructure alleviates flooding by capturing and storing up to 10 million gallons of stormwater, and the community can enjoy healthy recreational options and the momentum of revival.

GRAPHIC 2:
TRANSFORMATION IN ACTION

BEFORE: *Lead-contaminated soil had to be removed before the park could convert 16 acres of empty lots into an urban retreat.*

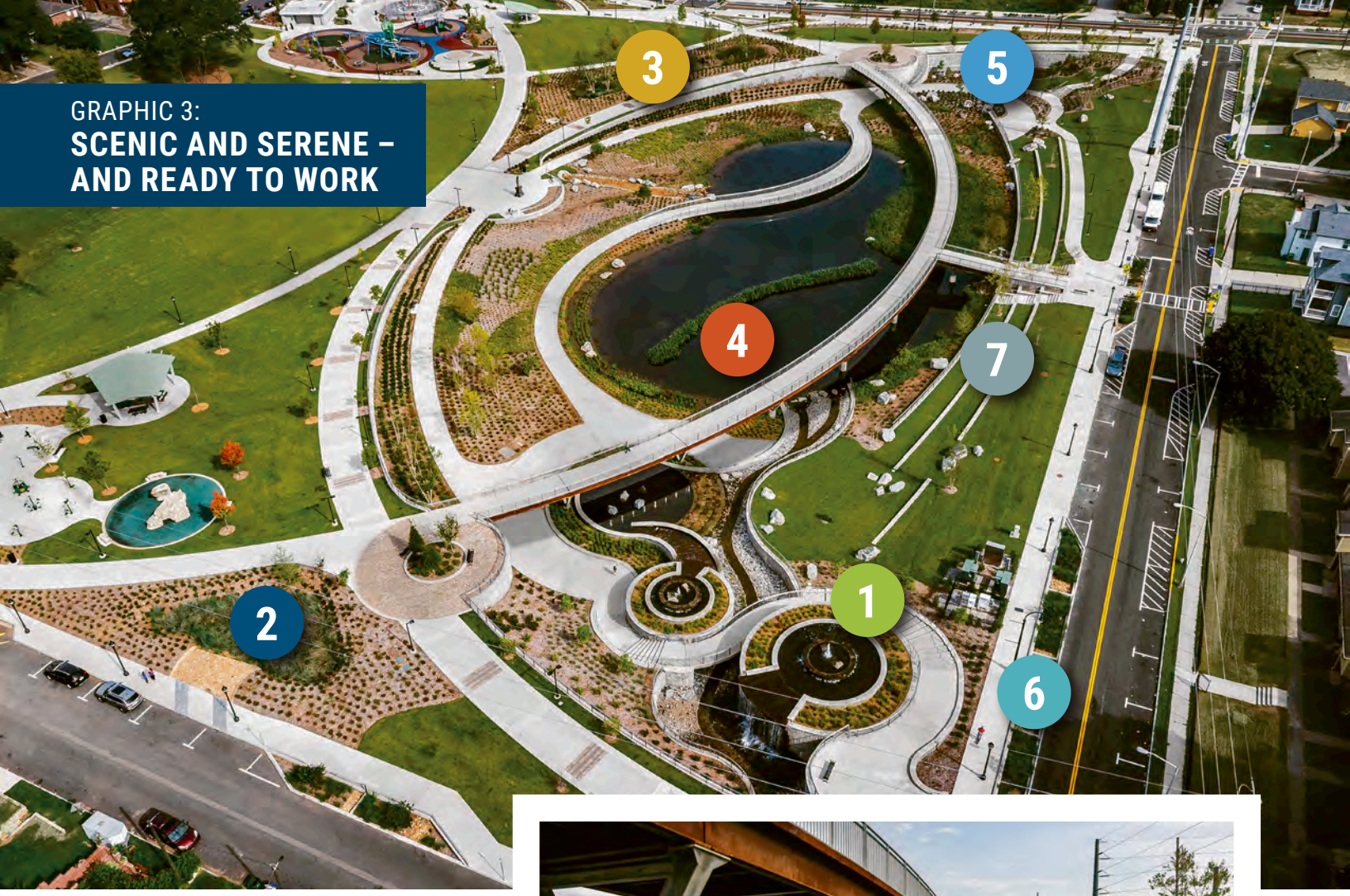
AFTER: *An exceptional green space invites play, rest and festivities, while beautifully incorporated infrastructure stands ready to tame stormwater.*

HOW THE PARK CONTROLS FLOODING

During planning for the park, residents had varying wish lists, but they were clear about wanting "no more flooding." Now, when storms roll through, the park goes into action:

- As water submerges low-lying areas, the circulation paths, including a sweeping 650-foot-long steel bridge, remain passable.
- The great lawn, sitting atop engineered soils and perforated pipes, can hold up to 2 feet of water and drain it back to the main pond – without creating a muddy field.
- Green infrastructure elements, such as biofiltration areas and planters along perimeter sidewalks, help control and filter stormwater.
- By slowly releasing the water from a 150-acre drainage area, the system reduces peak loads straining the sewer system.

GRAPHIC 3:
SCENIC AND SERENE – AND READY TO WORK



1. Fountain feature providing aeration
2. Biofiltration pond
3. Biofiltration pond
4. Wet pond
5. Overflow weir that will engage in larger, less frequent storms
6. Stormwater filtration planter
7. Underground storage tank to store make-up stormwater for the wet pond

HOW THE PARK ENRICHES THE COMMUNITY

SOCIAL/ECONOMIC: Cook Park reflects the City's commitment to long-term investment in the Westside area to stimulate further development, and it advances the goal of bringing a park within a 10-minute walk of all Atlanta residents.

RECREATIONAL: Amenities include a signature playground, basketball courts, areas for food trucks and large gatherings, and climbing boulders developed with input from local schoolchildren. The park has hosted foodie events and jazz concerts, and it's even a popular pickleball spot.

EDUCATIONAL: Signage promotes awareness about water quality and sustainability, and the park is a catalyst for education about civil rights leaders and Atlanta history:

- A statue of the legendary U.S. Rep. John Lewis anchors the park.
- A peace walk highlighted the 2022 unveiling of a statue of former U.S. Ambassador Andrew Young to celebrate his 90th birthday.
- An MLK statue is scheduled for dedication in April 2023 to commemorate his 1968 "I've Been to the Mountaintop" speech.

ENVIRONMENTAL: The park's plantings are native or adapted to Georgia, so they can withstand the heat as well as submersion during storms. Though lead soil remediation required removing a substantial number of trees, the same amount of "tree caliper" was replaced nearby to create an even healthier canopy. The design also preserved Atlanta's largest American Elm tree: 65 feet tall, with a 110-foot-wide canopy.

GRAPHIC 4:
PLAY AND EDUCATION

Rodney Cook Sr. Park at Vine City | City of Atlanta, Georgia | 2023 NAFSMA Innovative Water Project Award

ECONOMIC IMPACT

The $40 million Rodney Cook Sr. Park embodies a thoughtful community investment with both immediate and long-term positive economic impacts:

COMPREHENSIVE CLEANUP

Commitment to developing a healthy public space free of prior hazards yields quantifiable city savings as well as tangible and intangible community and individual benefits.

CREATING A SAFE ENVIRONMENT WAS PARAMOUNT: The homes that once stood on the site were built over smelter and industrial process residues that had been imported as fill material, so the soil contained high lead concentrations. The City's Department of Watershed Management remediated that problem through a voluntary program with Georgia's Environmental Protection Division. Utilities that had served the housing development were also removed/relocated, and a transmission line was rerouted around the perimeter of the park.

MONEY-SAVING IMPROVEMENTS

Before designing the stormwater infrastructure, Freese and Nichols developed a phased master plan with Cook Park as the first step in the separation of this section of the Lower Proctor Creek watershed's combined sewer system. Overhauling the sewer system is projected to result in substantial savings on capital and maintenance costs.

The park's innovative green infrastructure also contributes to savings by reducing peak loads straining the sewer system and improving downstream water quality. The flood-control pond surrounded by wetlands, biofiltration ponds and stormwater planters naturally filters and slowly releases stormwater from a 150-acre drainage area, eliminating the kind of rushing stormwater that used to inundate the system and cause system overflows.

INVESTMENT IMPETUS

The park resulted from years of collaboration involving the city, community members, private stakeholders and engineering firms to produce a versatile asset and spur economic growth in a proud neighborhood that had declined significantly.

Funding combined public and private sources:

- 65% from the City of Atlanta through revenue bonds and the Department of Watershed Management's capital budget
- 35% from a combination of funds raised by The Trust for Public Land and the City's Department of Parks and Recreation

The City and nonprofit groups, such as the Westside Future Fund and Alliance for the Activation of Cook Park, continue working with the community, corporate and philanthropic groups, to generate interest and engagement with the park, develop programming and pursue funding for ongoing educational projects. The City, for instance, has solicited proposals from local artists to paint murals in prominent park locations. Meanwhile, the Alliance secured a local grant for improvements such as shade features and more benches and dog waste stations.

GRAPHIC 5:
A VISION FILLED WITH HOPE

Rodney Cook Sr. Park at Vine City | City of Atlanta, Georgia | 2023 NAFSMA Innovative Water Project Award

OUTREACH EFFORTS

As a collaboration involving Atlanta city departments, The Trust for Public Land, civic leaders, community residents and others, Cook Park was developed through wide-ranging engagement efforts over multiple years.

To get residents enthused and collect input on their dreams for the park, the planning process included a design charrette and other types of outreach. The goal was to create a green space that met the community's wants and needs so they could feel ownership as well as enjoy it.

On comment cards, residents wrote comments such as:

- ***"Provide plenty of green space to relax but also some commercial spaces where we could purchase food and refreshments! Also safety/cleanliness is key!"***
- ***"Open to allow visitation to park to enjoy fellowship. Beautify the community. Display some history."***
- ***"Have picnic tables."***

Now, they have those amenities and so much more. The park appeals to families, dog walkers, joggers, festival-goers and many other visitors. It features a rock-climbing structure, splashpad, restroom building topped with a skyline overlook, futuristic-looking playgrounds, wide sidewalks to accommodate farmers markets and festivals, multiuse sports courts, fitness stations, a picnic pavilion and a natural amphitheater with city views.

Since the park's 2021 opening, events have ranged from health/wellness fairs to the city-sponsored **"Popsicles in the Park"** to a **peace walk** accompanying dedication of a statute honoring former U.N. Ambassador Andrew Young for his 90th birthday. A weekly **Roller Skate Day** takes place in the summer.

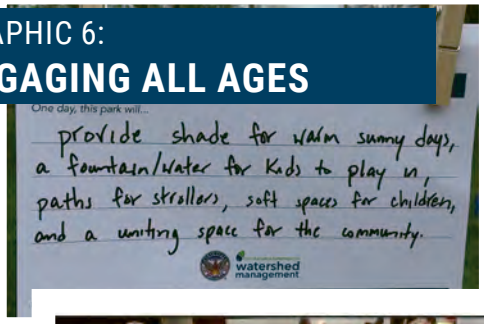
Educational elements are an integral part of the park design. **Signs throughout the park highlight the green infrastructure features, such as the stormwater planters and biofiltration ponds, explaining how they reduce flooding and remove pollutants, thus promoting understanding about water quality and the importance of keeping litter out of waterways.**

DISTINCTIVE CLIMBING BOULDERS HAVE A SPECIAL TOUCH

Neighborhood youths helped design two of the giant manufactured boulders through a public-private partnership: https://www.westsidefuturefund.org/news/local-youth-design-climbing-boulders/

The Trust for Public Land partnered with the Mayor's Office of Cultural Affairs on a mural competition to add artwork at prominent locations across the park. And a locally driven peace initiative continues to develop commemorative statues of iconic civil rights figures and educational programming.

GRAPHIC 6:
ENGAGING ALL AGES



> *"The neighborhood is bordered by four historically Black colleges and universities: Spelman College, Morehouse College, Clark Atlanta University and Morris Brown College. A pivotal and collaborative effort, residents were keenly involved in conceptualizing how the park would serve and strengthen their community."*
>
> – CITY NEWS RELEASE

RESULTS

Cook Park fulfilled a vision that city leaders, community members and civic groups had nurtured for years. The park has been embraced as both an accessible everyday asset and a symbol of hope for a part of Atlanta that longed for renewal.

The project required careful coordination, communication and collaboration across multiple city departments, numerous civic partners, an extensive design and engineering team, private entities and regulatory agencies.

FULFILLING THE DREAM

Anticipation grew throughout the planning process as residents expressed their hopes for how the park could improve their lives. Suspense intensified when construction was delayed for hurdles such as removal of lead-contaminated soil from the site. ***Creating a safe environment was essential, even if it required additional time to prepare the site.***

The **City's Department of Watershed Management** remediated the lead problem through a voluntary program with **Georgia's Environmental Protection Division**. Another challenge was removing utilities that had served the housing development. A **Georgia Power** transmission line also had to be rerouted around the perimeter of the park.

Even when the Covid-19 pandemic disrupted life in a myriad of ways, construction of the park continued, with a new layer of health and safety precautions.

CONTINUING THE WORK

While the park performs its dual watershed-management and recreational functions, it **continues to evolve as an important location for activities and events** ranging from jazz concerts to chili cook-offs to National Night Out gatherings.

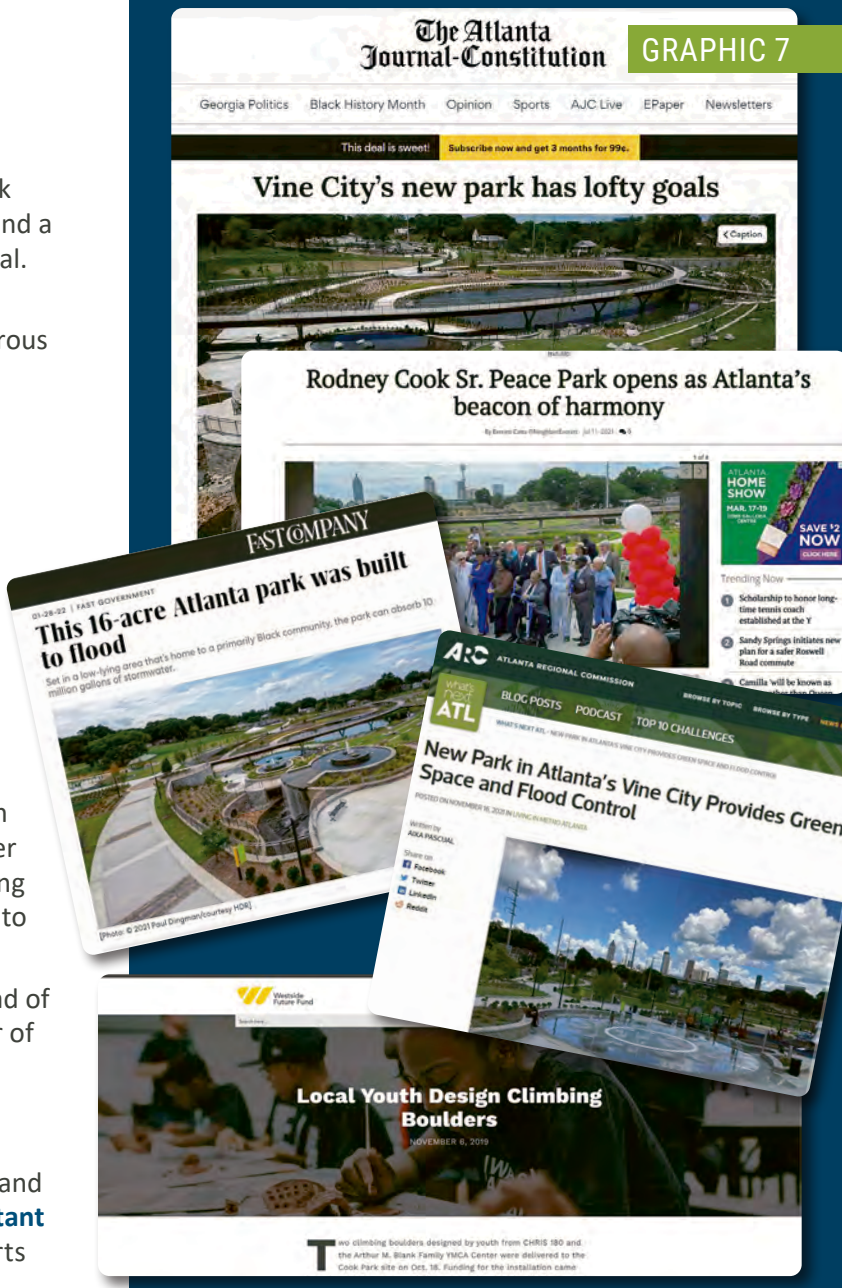
At its opening, the park already featured a statue of the legendary U.S. Rep. John Lewis, the first of many planned monuments to Georgia changemakers. A statue of former U.N. Ambassador Andrew Young was added in 2022, and Martin Luther King Jr.'s is scheduled for dedication in April 2023.

The park also anchors other locally driven revitalization work. Examples:

- The Westside Future Fund assists longtime homeowners and renters so improvements don't price them out.
- The Alliance for the Activation of Cook Park works with corporate and philanthropic groups to promote the park and develop programming, such as a memorial focused on the 2002 flood.

The Alliance received a 2023 grant from **Atlanta nonprofit Park Pride** to fund several improvements, including shade structures for the playground and fitness equipment area, and more benches, trash cans and dog waste stations.

GRAPHIC 7



THE MAYOR'S OFFICE ANNOUNCED THE JULY 2021 OPENING WITH EXCITEMENT:

"When we began construction on this project four years ago, we knew it was going to be a breathtaking attraction for the community, while redirecting surface runoff from the combined system and also incorporating green infrastructure," said Department of Watershed Management Commissioner Mikita Browning. ***"The wet pond will retain excess stormwater, rain gardens will filter storm flow, stormwater planters will capture runoff from neighboring streets, and the wetlands native plantings surround the wet pond to enhance water quality.***

Water-Smart Cook Park Officially Opens, Revitalizes Historic Neighborhood

MAINTENANCE

Sustainability, ease of maintenance and efficient use of resources were key drivers across all elements of the design.

SUSTAINABILITY GENERATES DIVIDENDS

Before designing the stormwater infrastructure, Freese and Nichols developed a phased master plan with Cook Park serving as the first phase of separating this section of the Lower Proctor Creek watershed's combined sewer system.

The park's **innovative green infrastructure** — a flood-control wet pond surrounded by wetlands, biofiltration ponds and stormwater planters — naturally filters and slowly releases stormwater from a 150-acre drainage area. This provides several short- and long-term benefits:

- Improving downstream water quality by removing nutrients, metals and oil and grease from the runoff
- Reducing peak stormwater loads straining the sewer system
- Decreasing future capital expenses
- Lowering maintenance costs

In addition to being water-wise, the design spreads environmental benefits:

- Plantings are native or adapted to Georgia, so they can withstand the Atlanta heat as well as submersion during storms, saving on maintenance and replace cost.
- Trees that were removed for the soil remediation were recycled into slabs for furniture, tables and benches.
- Tree caliper replaced around the park adds to the clean-air impact for the neighborhood by storing carbon, and the design preserved Atlanta's largest American Elm tree, which is 65 feet tall, with a 12.5-foot-diameter trunk and 110-foot-wide canopy. The trees also will help cool the location climate.
- People and wildlife can move comfortably and safely through the network of green space and habitat.
- Some of the plantings also serve as a food source for pollinators that are vital to successful regional agricultural production.

STORMWATER DESIGN EASES MAINTENANCE

In addition to constructed elements that minimize repair and replacement, the stormwater elements were designed to simplify maintenance. For example:

- Concrete walkways lead down to the pond level for easy access by maintenance vehicles.
- Trash racks are located in easily accessible manholes that also reduce litter in park surface features.
- Sediment forebays in the wet pond and biofiltration ponds concentrate floatables to designated areas, reducing the regular maintenance footprint.
- Upturned underdrains in the stormwater planters and biofiltration ponds ensure adequate drawdown time and sustained viability of the plant life.
- Plunge pools at storm drain outfalls reduce scour.
- Clean-outs along the underdrain system make maintenance access easier.

GRAPHIC 8:
SUSTAINABLE, EFFICIENT, DURABLE

CONCLUSION

Rodney Cook Sr. Park at Vine City embodies a grand promise by the City of Atlanta to one of its most historic neighborhoods – and one that has faced daunting challenges. City leaders, civic visionaries and philanthropists pledged to recreate the grandeur of Mims Park, an Olmstead Brothers-designed green space that once anchored the community. But the broader goal was to rejuvenate the area by investing in the infrastructure to make it safe from flooding and in the economic structure to help it thrive again.

> In an article about Cook Park's first anniversary, the *Saporta Report*, a metro Atlanta news website, wrote:
>
> ***With one year under its belt, Cook Park is a good example of how green spaces can be used to serve the needs of both the environment and the community.***

Collaboration with a dedicated and inventive team of engineers and designers created the foundation to fulfill that promise. Multiple disciplines contributed: soil/groundwater remediation; civil, geotechnical, structural, geotechnical, hydrology and water resources engineering; landscape engineering; and sustainable infrastructure design.

The park is doing its watershed-management job, and the community continues to expand its use of the park and its imagining of what this asset can become.

GRAPHIC 9

ACCOMPLISHING KEY GOALS

- ✓ **TRANSFORMING** empty lots into a gleaming 16-acre urban oasis that embraces the neighborhood's history, honors peacemakers and serves as a catalyst for further economic development
- ✓ **PROTECTING** the area from flooding, improving water quality through natural filtration, easing strain on the sewer system and implementing the first phase of combined sewer separation
- ✓ **ACHIEVING** long-term cost savings by lowering park maintenance costs, reducing peak loads on the City's treatment plant and improving downstream water quality
- ✓ **CREATING** a public space that promotes education about Vine City, civic history, culture and the importance of stormwater resilience for helping communities thrive