



CITY OF NEW ORLEANS

*Incorporating Green Infrastructure  
into the New Orleans Landscape*

\*\*\*\*\*

*May 9, 2017*



A satellite image showing the Mississippi River Delta and the Gulf of Mexico coastline. The land is green and brown, with a white box highlighting the area around New Orleans. The water is dark blue, and the coastline is visible. The text "New Orleans is a coastal city." is overlaid on the left side of the image.

New Orleans  
is a coastal city.

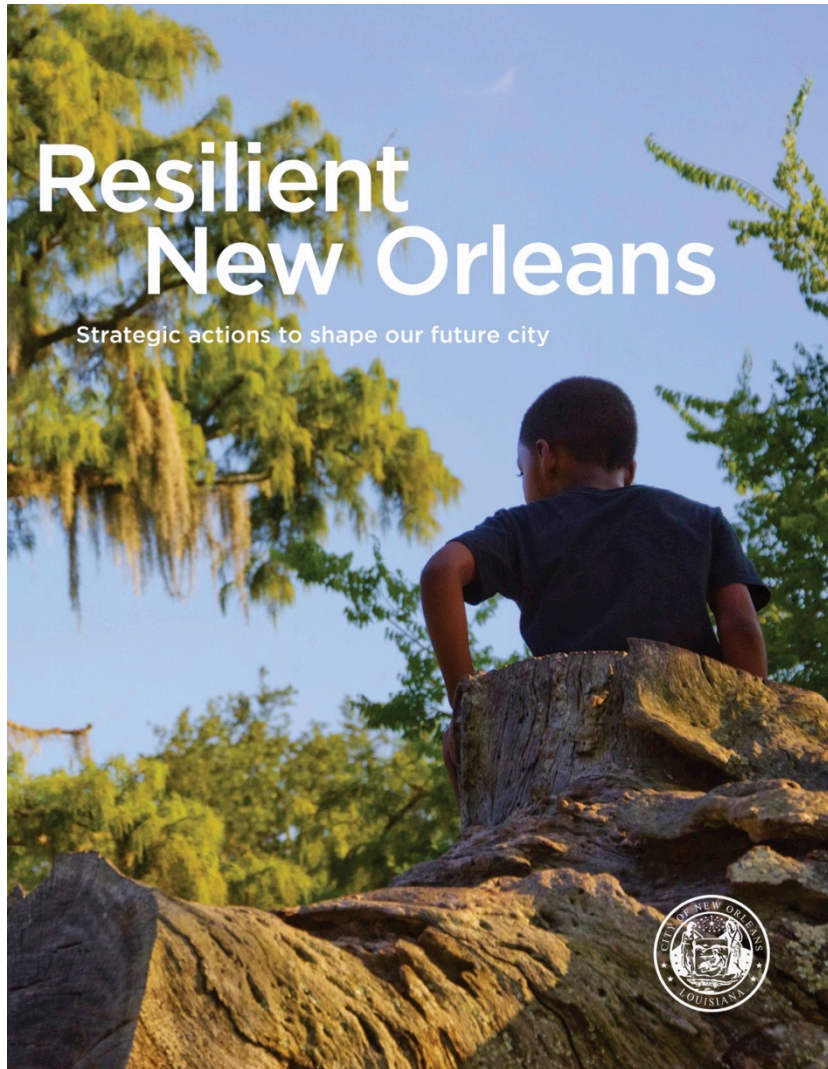
New Orleans' location, where the Mississippi River Delta becomes the Gulf of Mexico, is strategic for commerce, but also defines our most existential threat.



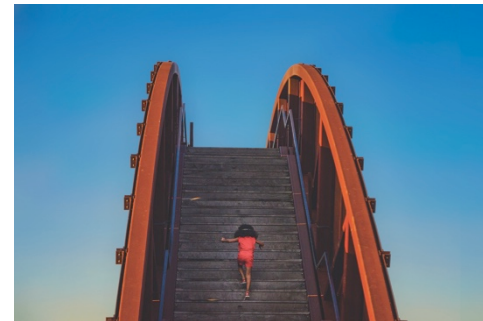
# New Orleans City Resilience Strategy

Released August, 2015

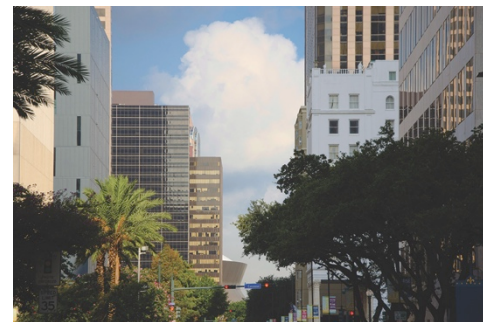
[resilientnola.org](http://resilientnola.org)



**Adapt to  
Thrive**



**Connect to  
Opportunity**



**Transform City  
Systems**



# Gentilly Resilience District

Projects proposed in City's application to National Disaster Resilience Competition



Parks & Playgrounds



Vacant Lots



Streets & Corridors

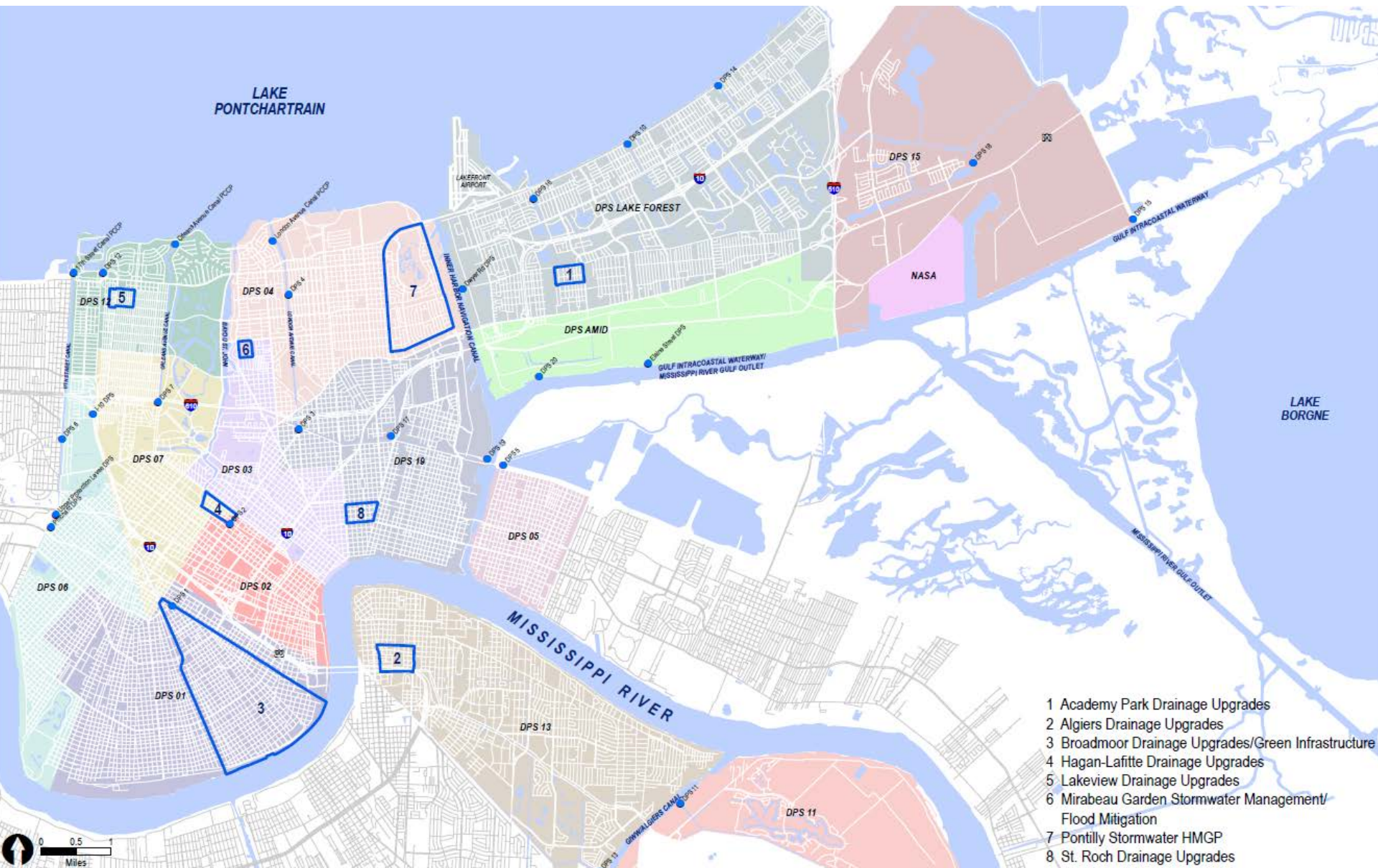


Open Spaces



Home & Property Improvements







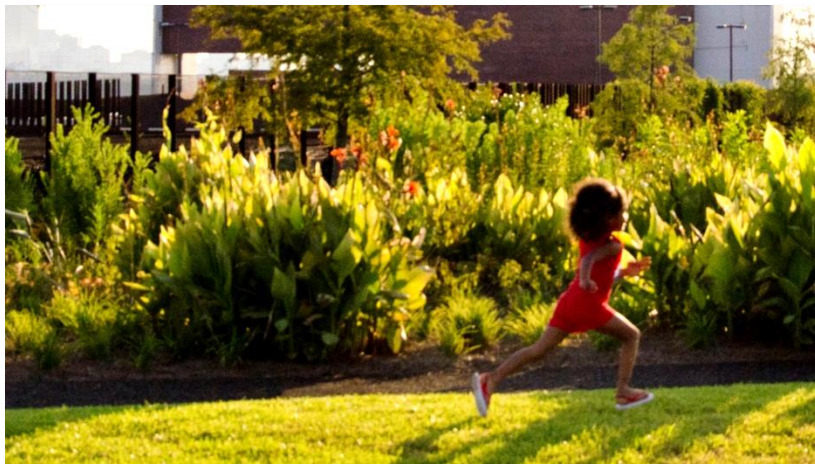
## Benefits of the Projects



Reduced risk of flooding and subsidence



Neighborhood beautification & economic development



Recreation & health



Environmental awareness



**May 2017**

# **Drainage Pump Station 01 Watershed**

## **Phase I: Stormwater Parks & Lots**



CITY OF NEW ORLEANS

**CDM  
Smith**

DANA BROWN &  
Associates

**digital  
engineering**



# AGENDA

- ***PROJECT TEAM***
- ***INTRODUCTION TO THE PROJECT***
- ***PROJECT OVERVIEW***
- ***EXISTING PROBLEMS***
- ***PROPOSED SOLUTIONS***
- ***NEXT STEPS***



# PROJECT TEAM

- **OWNER:**
  - CITY OF NEW ORLEANS DEPARTMENT OF PUBLIC WORKS
- **DESIGN TEAM:**
  - CDM SMITH
  - DANA BROWN & ASSOCIATES
  - DIGITAL ENGINEERING



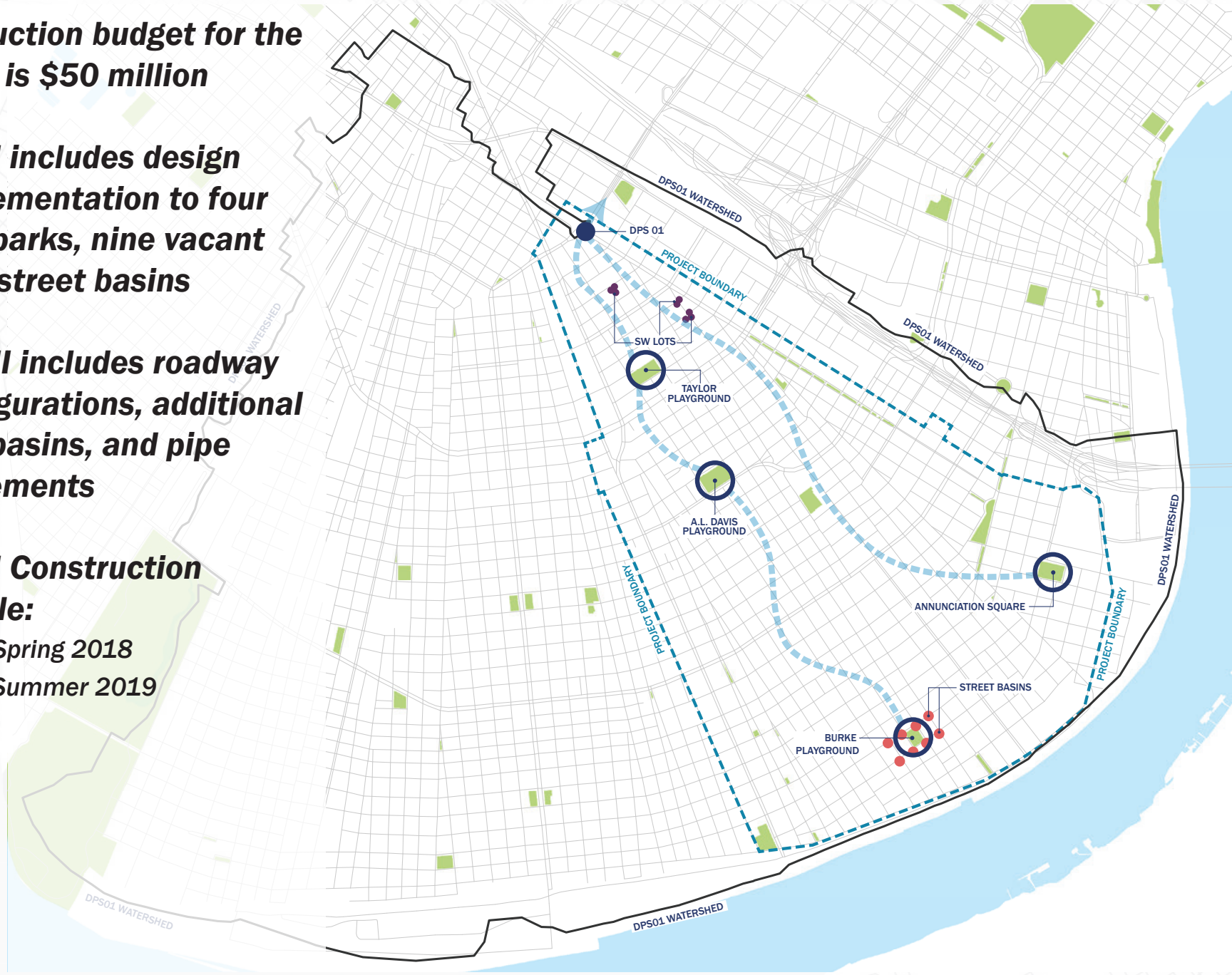
# INTRODUCTION TO THE PROJECT

- ***Project benefits 9 neighborhoods within Drainage Pump Station 01 Watershed:***
  - *Broadmoor*
  - *Central City*
  - *Garden District*
  - *Lower Garden District*
  - *Irish Channel*
  - *St. Thomas Development*
  - *Touro*
  - *East Riverside*
  - *Milan*
- ***Properties experience frequent flooding & repetitive losses***
- ***Implementing Green Infrastructure will provide widespread benefits***



# PROJECT OVERVIEW

- **Construction budget for the project is \$50 million**
- **Phase I includes design & implementation to four public parks, nine vacant lots, & street basins**
- **Phase II includes roadway reconfigurations, additional street basins, and pipe replacements**
- **Phase I Construction schedule:**
  - Start - Spring 2018
  - Ends - Summer 2019





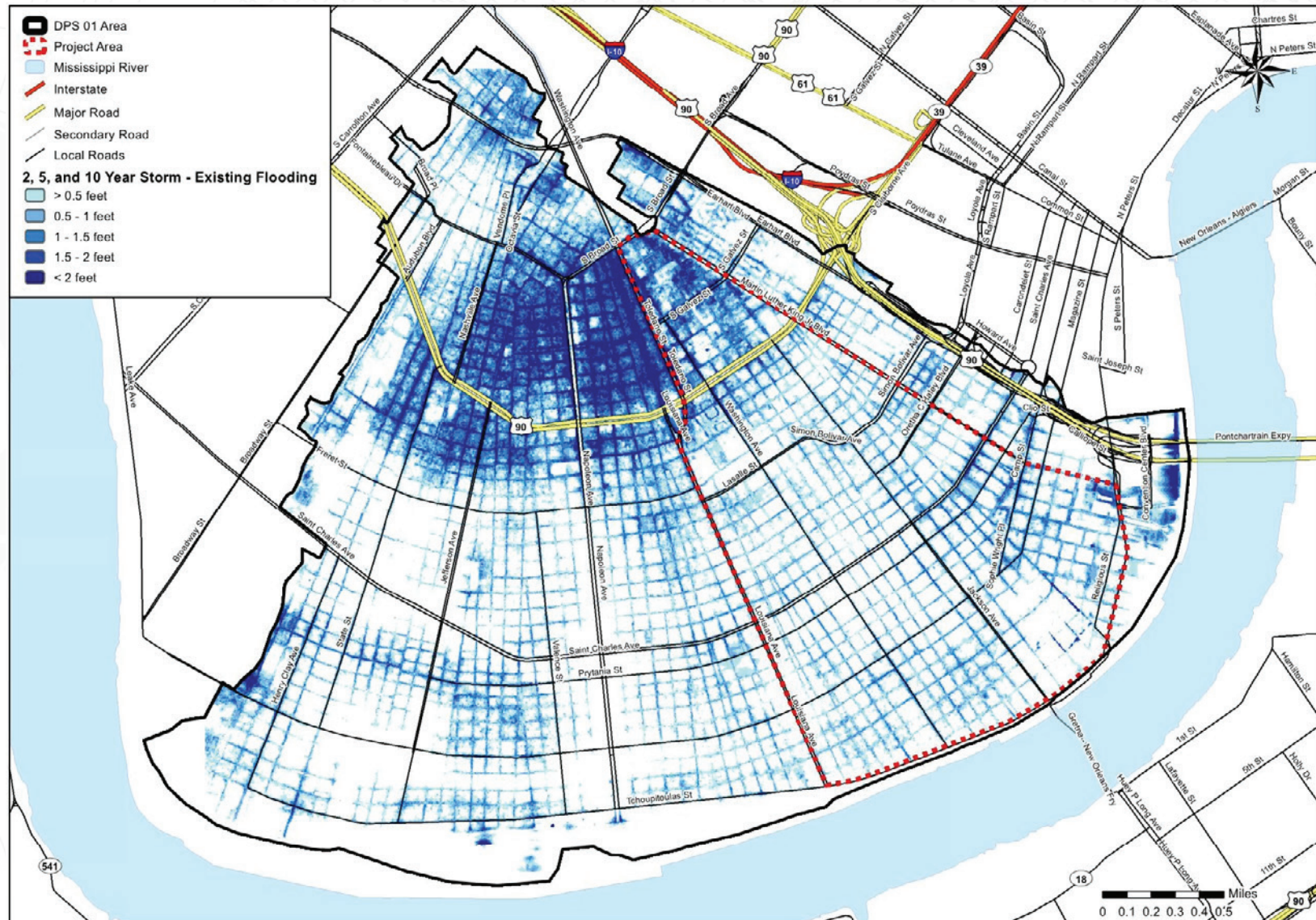
## EXISTING PROBLEMS

- ***Localized flooding***
- ***Repetitive losses***
- ***Damage to homes, businesses, and vehicles***
- ***Burden on the City's drainage system***





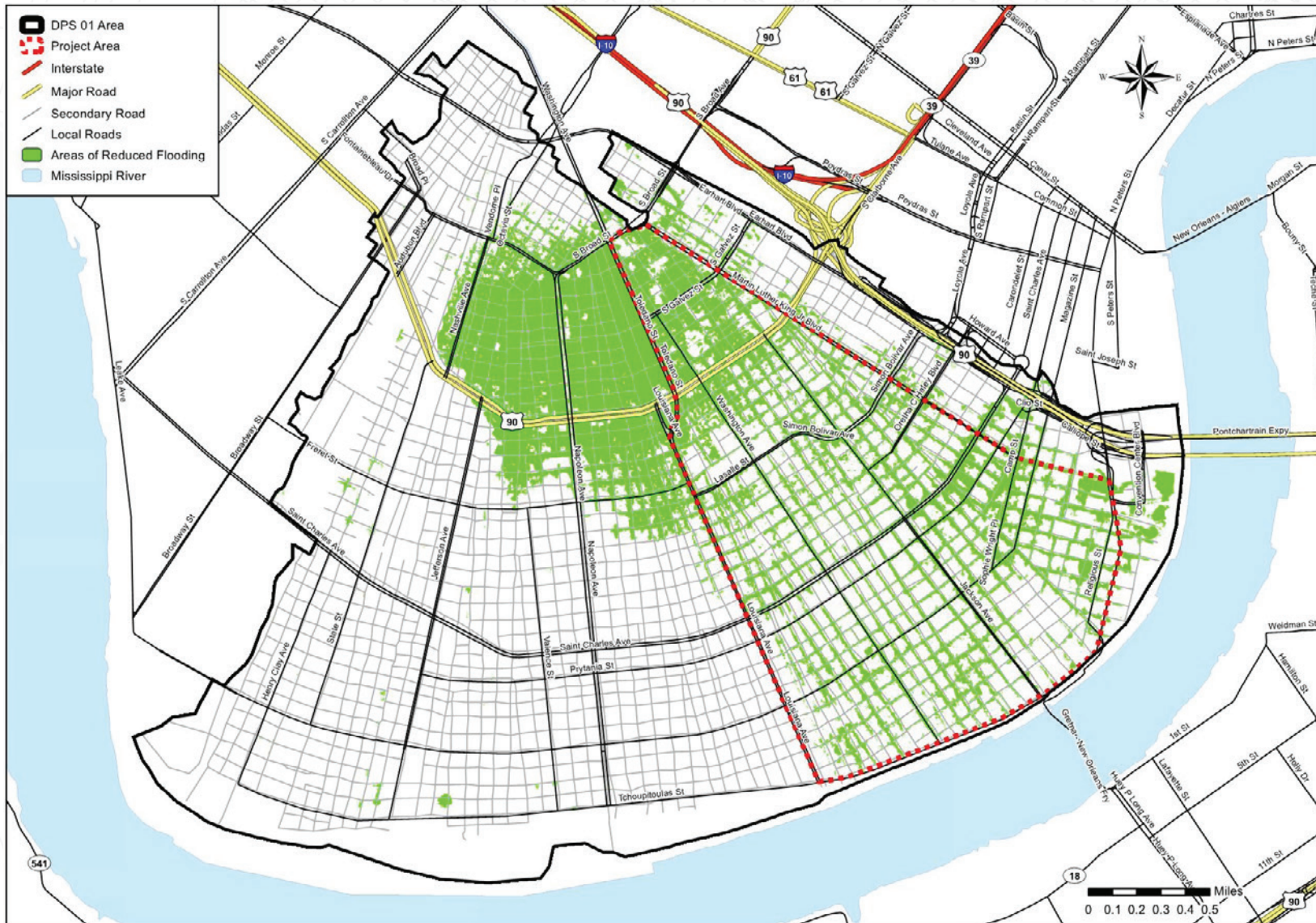
# EXISTING PROBLEMS



MAP OF A 2, 5, AND 10 YEAR STORM



## PROPOSED SOLUTIONS



## SYSTEM-WIDE BENEFITS OF PROPOSED IMPROVEMENTS



# PROPOSED SOLUTIONS: *STORMWATER PARKS*

- ***The four parks will incorporate stormwater management***
- ***Existing park recreation will not be changed***
- ***Stormwater from neighborhoods will be stored under parks in tanks***
- ***Some existing pipes will be upgraded***
- ***Where pipe upgrades occur, street segments will be repaved from curb to curb***



AL DAVIS PLAYGROUND



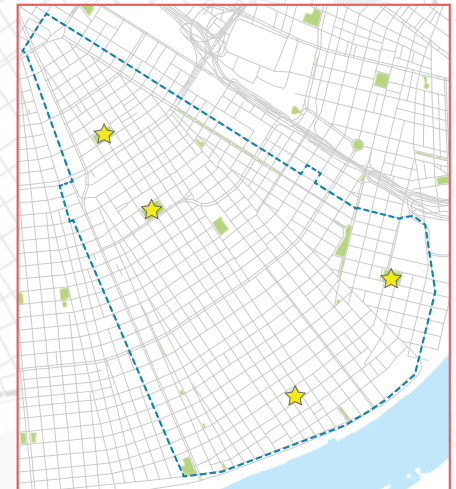
ANNUNCIATION SQUARE



TAYLOR PLAYGROUND

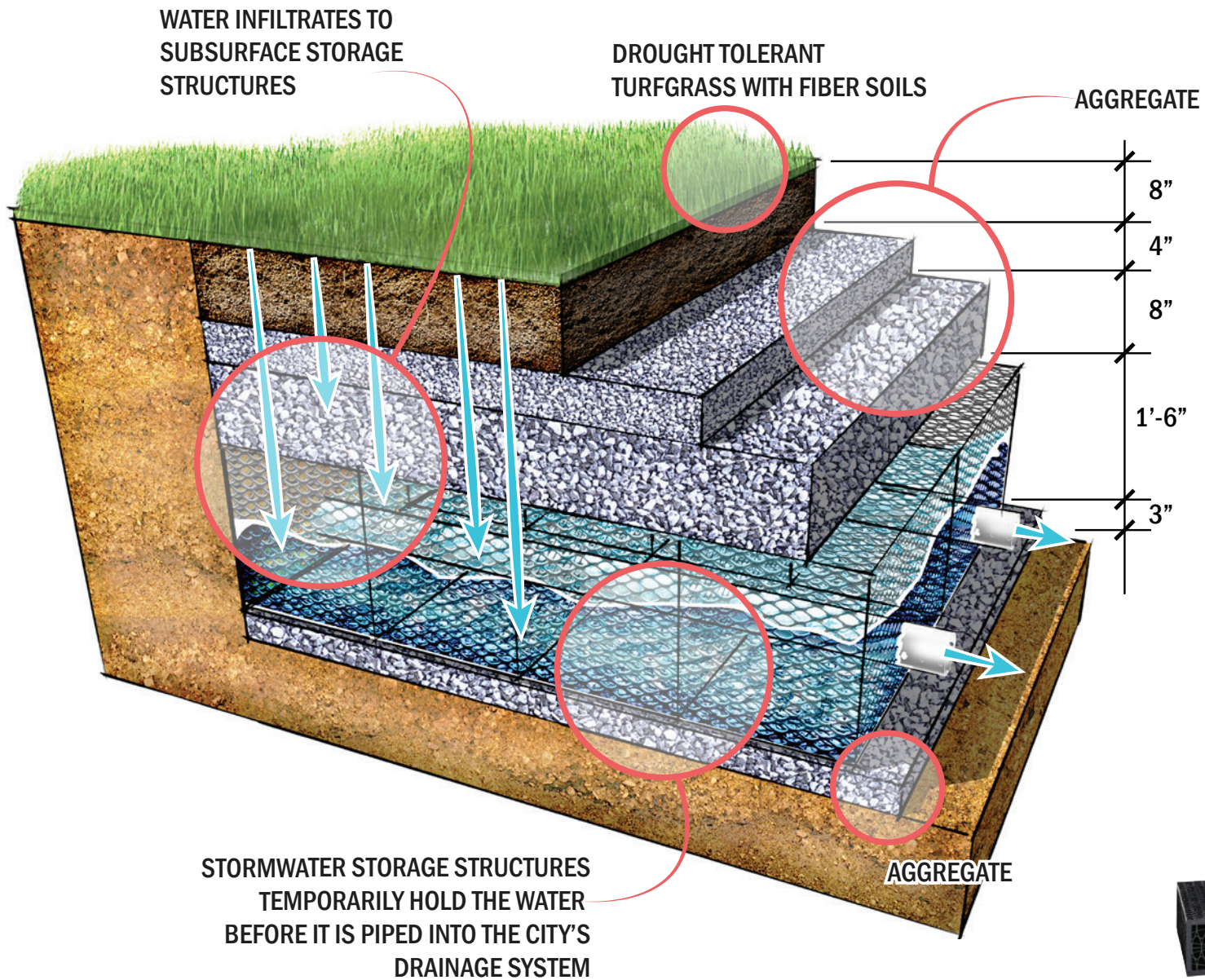


BURKE PLAYGROUND (CLAY SQUARE)





# PROPOSED SOLUTIONS: *STORMWATER PARKS*





# PROPOSED SOLUTIONS: *STORMWATER PARKS*

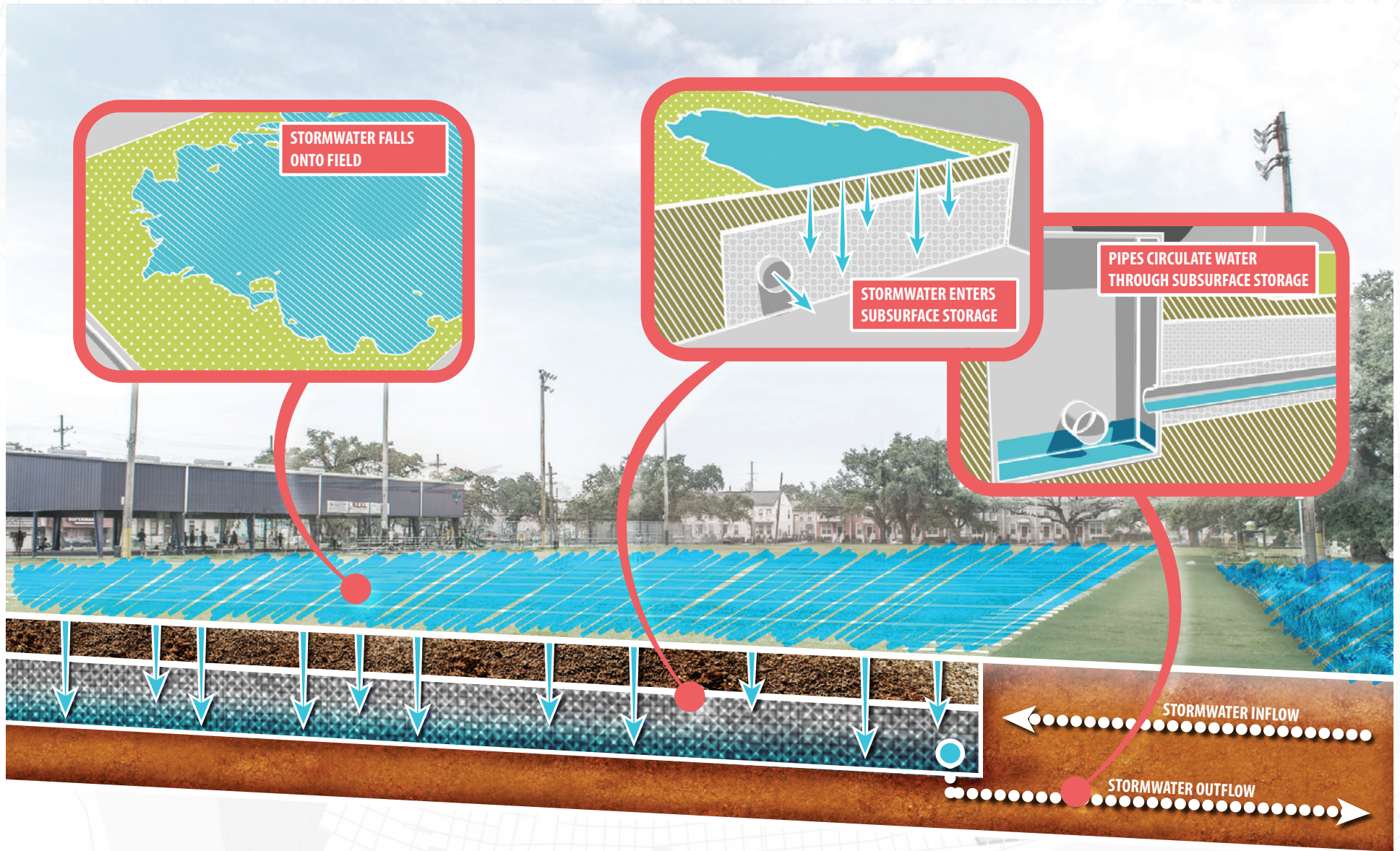


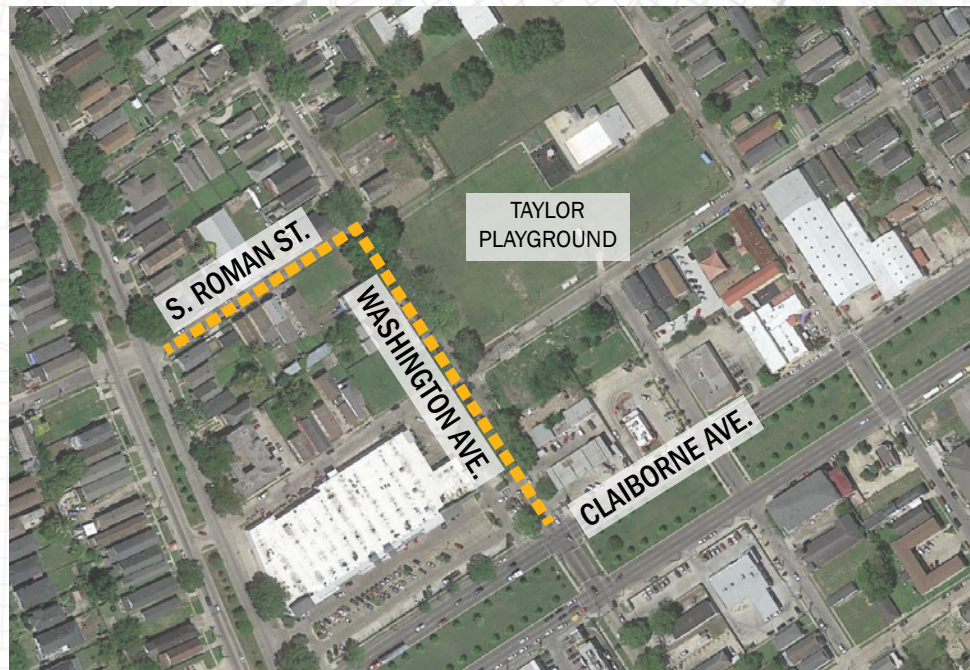
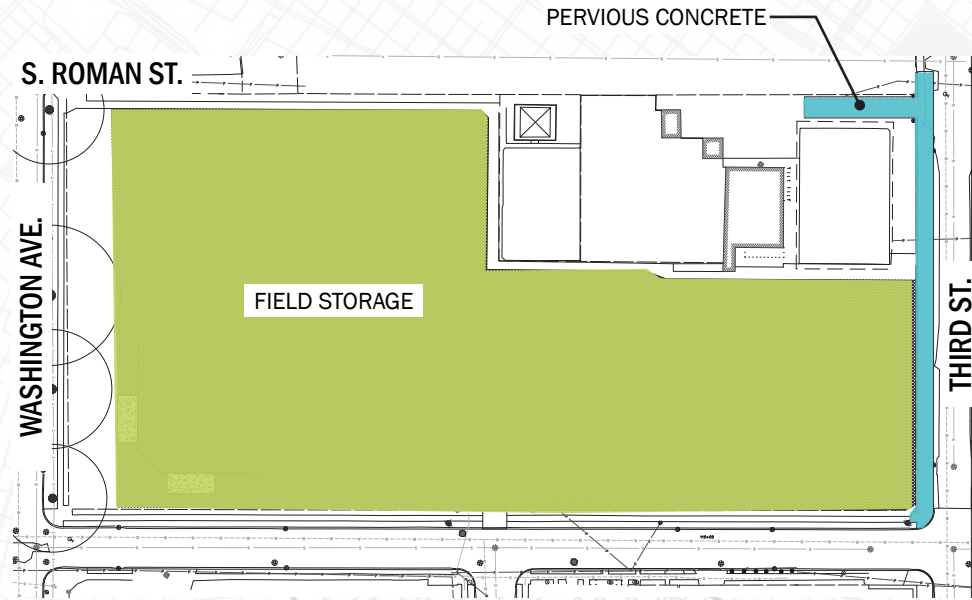
DIAGRAM ILLUSTRATING THE SUBSURFACE STORAGE



# PROPOSED SOLUTIONS: STORMWATER PARKS

## ***Taylor Playground:***

- 187,600 CF of storage
- Reduction of 8" of water over 3 city blocks!
  - *Subsurface field storage*
  - *Pervious concrete sidewalks*
- ***Pipe upgrades:***
  - *S. Roman Street*
  - *Washington Avenue*

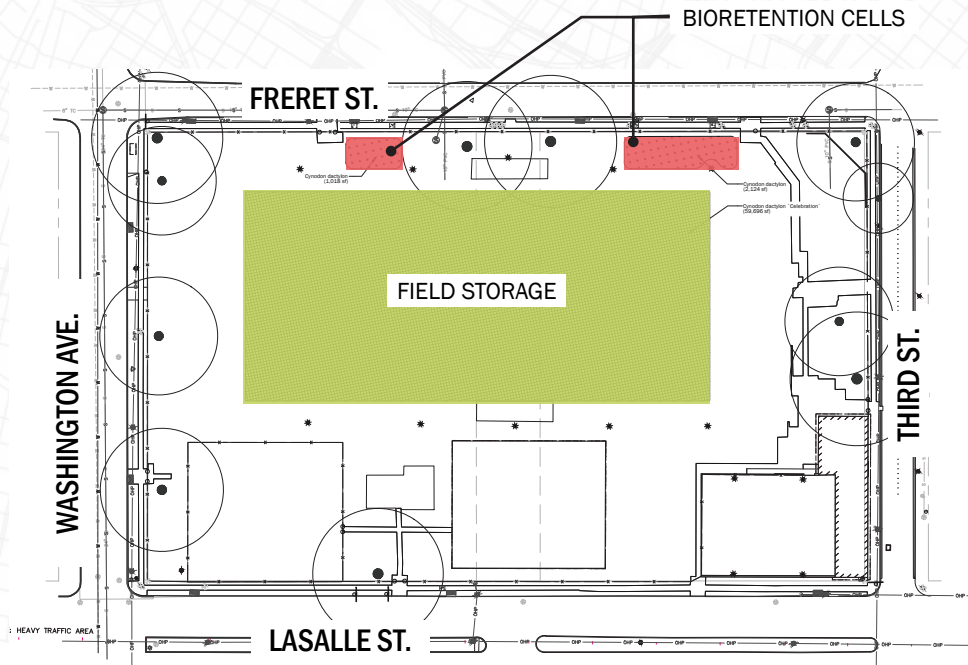




# PROPOSED SOLUTIONS: STORMWATER PARKS

## **AL Davis:**

- 196,620 CF of storage
- Reduction of 9" of water over 3 city blocks!
  - *Subsurface field storage*
  - *Bioretention cells*

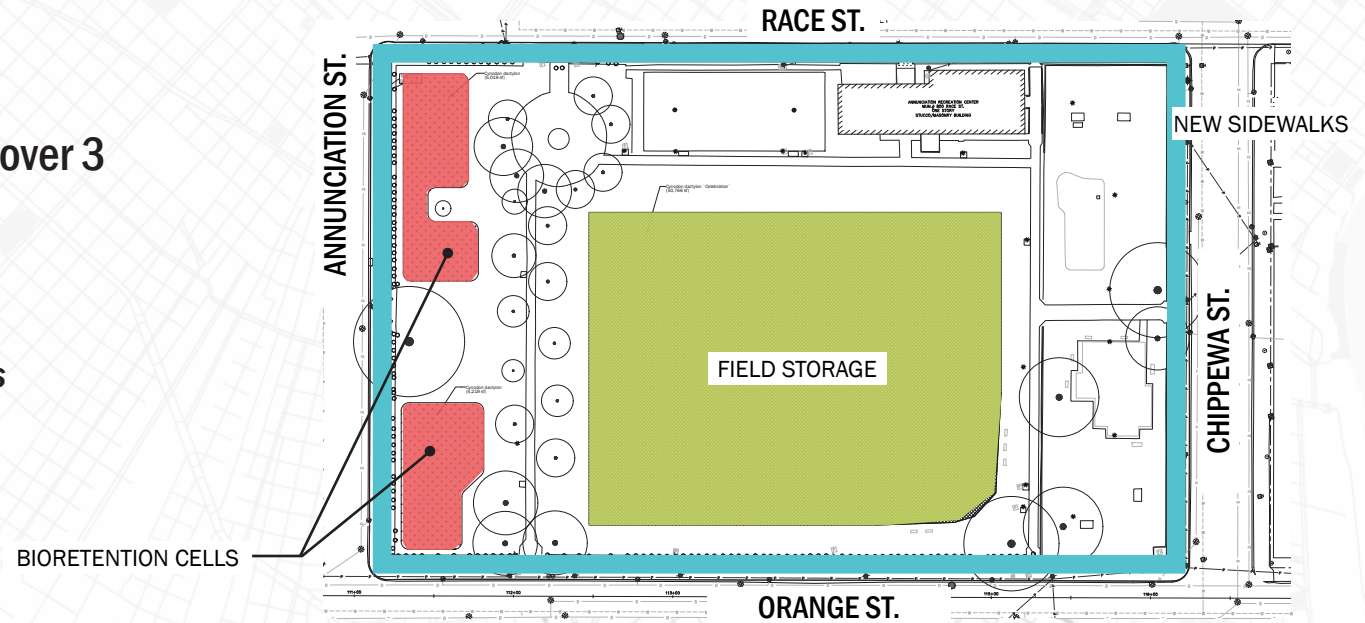




# PROPOSED SOLUTIONS: STORMWATER PARKS

## **Annunciation Square:**

- 153,100 CF of storage
- Reduction of 7" of water over 3 city blocks!
  - *Subsurface field storage*
  - *Bioretention cells*
  - *New perimeter sidewalks*
- **Pipe upgrades:**
  - *Orange Street*
  - *Race Street*

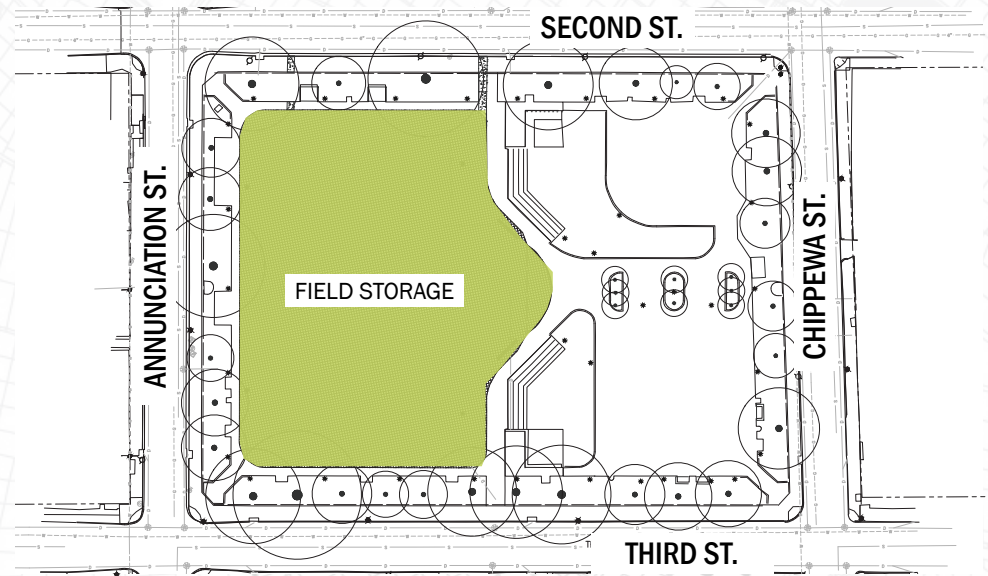




# PROPOSED SOLUTIONS: STORMWATER PARKS

## **Burke Park/Clay Square:**

- 71,450 CF of storage
  - Reduction of 3" of water over 3 city blocks!
    - *Subsurface field storage*
- 
- **Pipe upgrades:**
    - *Annunciation Street*
    - *Chippewa Street*





# PROPOSED SOLUTIONS: *STORMWATER PARKS*

## ESTIMATED CONSTRUCTION SCHEDULE

- *Construction to begin in Spring of 2018*
- *Parks and surrounding streets may be closed for an estimated 6 to 8 months*

## BENEFIT RECAP:

- ***Reduces street flooding***
- ***Fields recover quickly for usage after a major storm event***



# PROPOSED SOLUTIONS: *STORMWATER LOTS*

- ***The nine vacant lots will be redesigned as Stormwater Lots***
- ***Lots take water off the streets & temporarily store on site***
- ***Water drains within 48 hours, therefore preventing the breeding of mosquitos***
- ***Provide usable green space when not holding water***



3313 1ST STREET



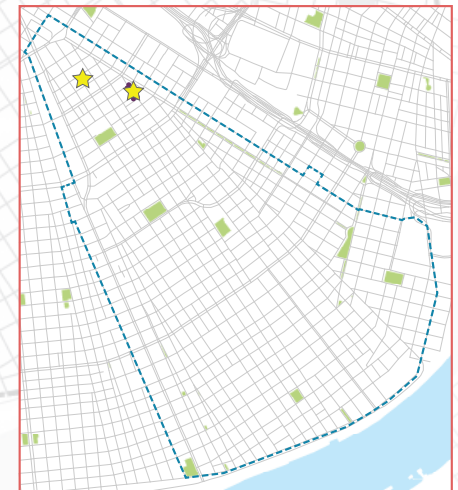
3200 JACKSON AVENUE



3635 3RD STREET



3623 3RD STREET

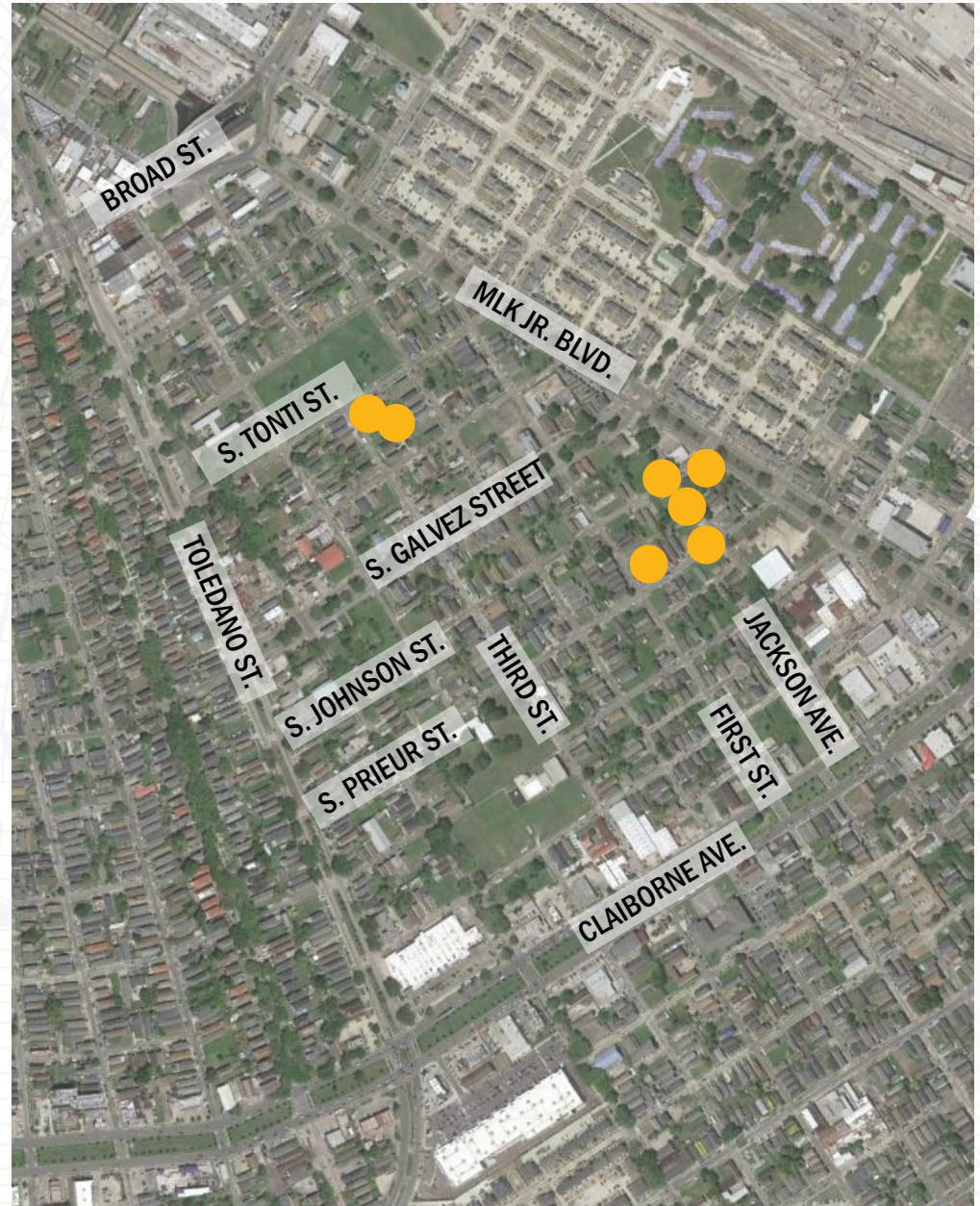




# PROPOSED SOLUTIONS: STORMWATER LOTS

## **Addresses of the nine SW Lots:**

- 3635 3rd Street
- 3623 & 3621 3rd Street
- 3400 Jackson Avenue
- 3231 Jackson Avenue & 2104 South Johnson Street
- 3222 Jackson Avenue
- 3200 Jackson Avenue
- 3313 1st Street





# PROPOSED SOLUTIONS: *STORMWATER LOTS*

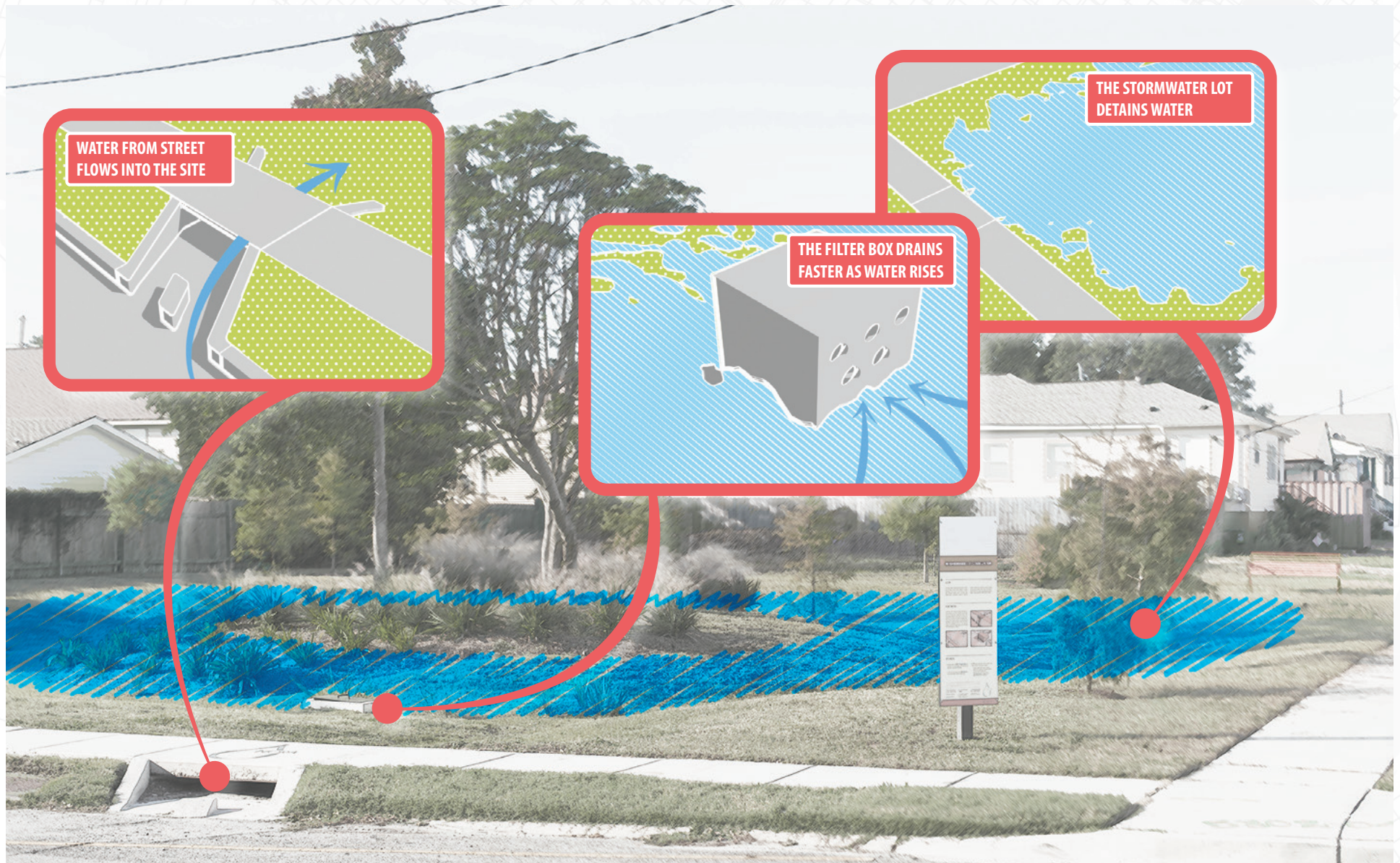


DIAGRAM ILLUSTRATING THE ABILITY TO TEMPORARILY STORE RUNOFF



# PROPOSED SOLUTIONS: STORMWATER LOTS

## BENEFIT RECAP:

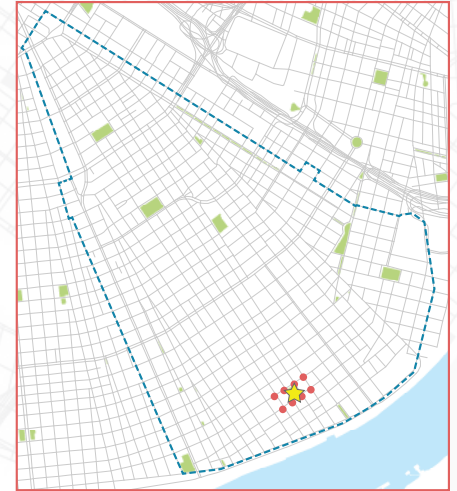
- ***Reduces street flooding***
- ***Improves water and air quality***
- ***Enhances the visual character of the neighborhood***
- ***Increases property values***





## PROPOSED SOLUTIONS: *STREET BASINS*

- ***8 intersections will be redesigned with Street Basins***
- ***Intersection corners will temporarily store runoff***
- ***No on-street parking will be removed***
- ***Planted vegetation will not restrict the existing line of sight for drivers***

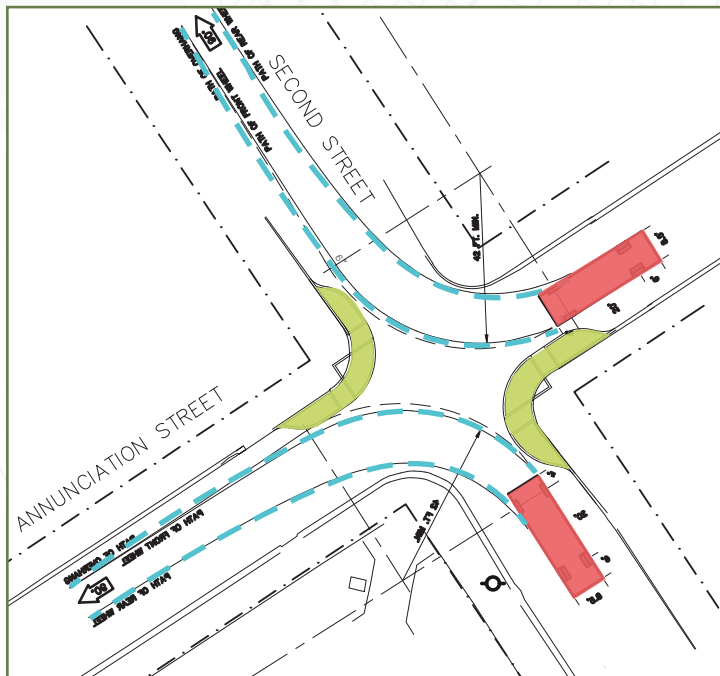




# PROPOSED SOLUTIONS: STREET BASINS

## Intersections

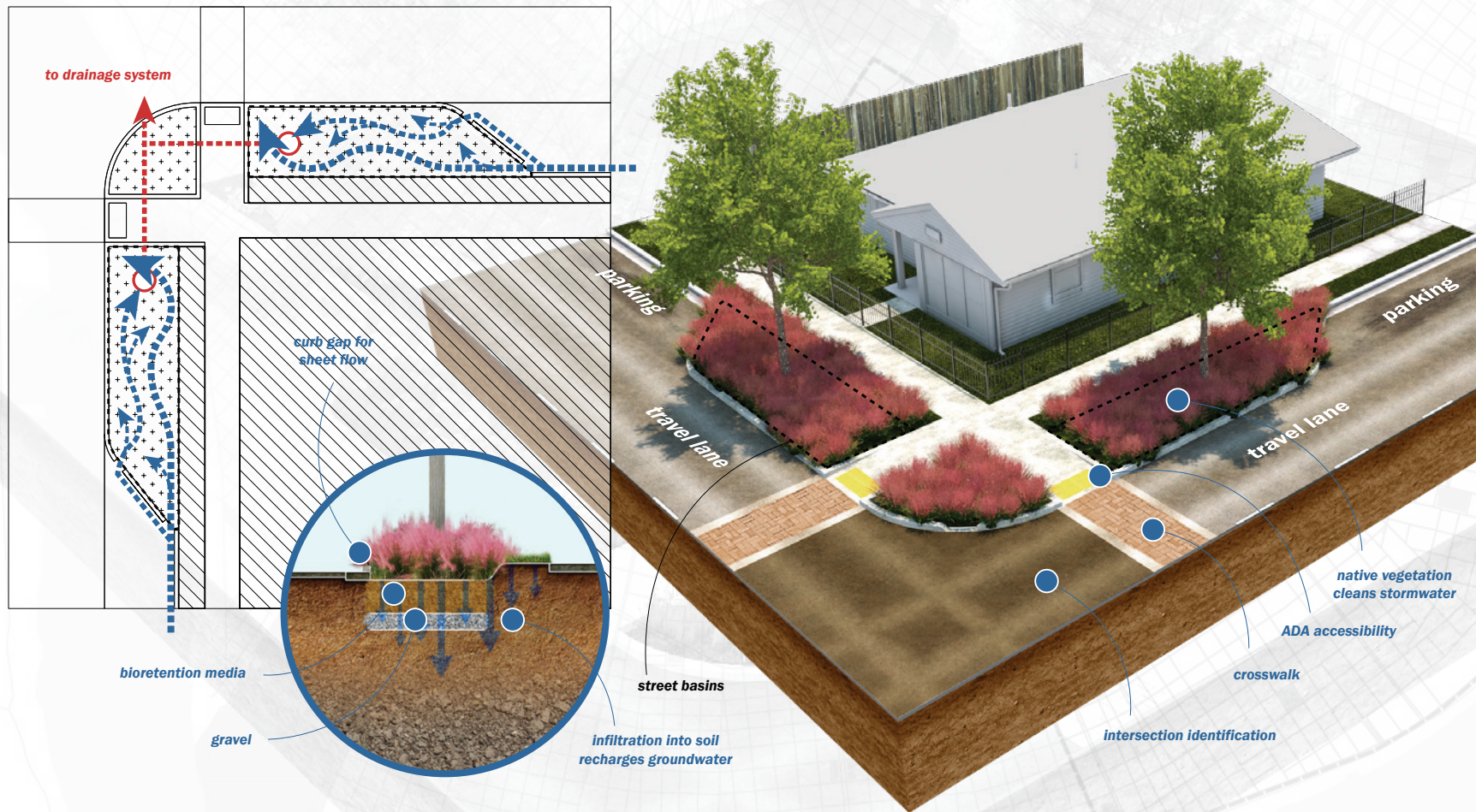
- Annunciation Street at 4th, 3rd, 2nd, and 1st Streets
- Chippewa Street at 4th, 3rd, 2nd, and 1st Streets
- Designed to allow for UPS-sized trucks to make turns





# PROPOSED SOLUTIONS: *STREET BASINS*

## GREEN INFRASTRUCTURE FACILITY CORNER STREET BASIN





# PROPOSED SOLUTIONS: *STREET BASINS*

## BENEFIT RECAP:

- ***Reduces street flooding***
- ***Slows traffic by narrowing street***
- ***Creates a safer crossing for pedestrians***



EXISTING CONDITIONS



GRAPHIC REPRESENTATION



## NEXT STEPS

- ***Address public comments from public workshops***
- ***Complete final design by December 2017***
- ***Coordinate construction so that all work is done in logical manner to reduce closure of streets and parks***
- ***Construction from Spring 2018 to Summer 2019***



A faint, light gray background map of New Orleans, showing the city's grid-like street pattern and the Mississippi River to the south. The map is centered on the French Quarter and extends to the city limits.

# ***QUESTIONS?***

**CONTACT:**  
**CHARLES ALLEN**  
**RESILIENCE OUTREACH MANAGER**

**EMAIL: [CEALLEN@NOLA.GOV](mailto:CEALLEN@NOLA.GOV)**

**PHONE: 504.658.2215**

**WEBSITE: [WWW.NOLA.GOV/RESILIENCE/PROJECTS/](http://WWW.NOLA.GOV/RESILIENCE/PROJECTS/)**

**FACEBOOK: [FACEBOOK.COM/RESILIENTNOLA](https://FACEBOOK.COM/RESILIENTNOLA)**