Daniel Morgan Boone Park Green Infrastructure Project

Public Meeting #3
Tuesday, September 26

Goals for this evening

- Informational meeting to demonstrate how feedback we've received has been incorporated to chosen alternative

What is the Smart Sewer Program?

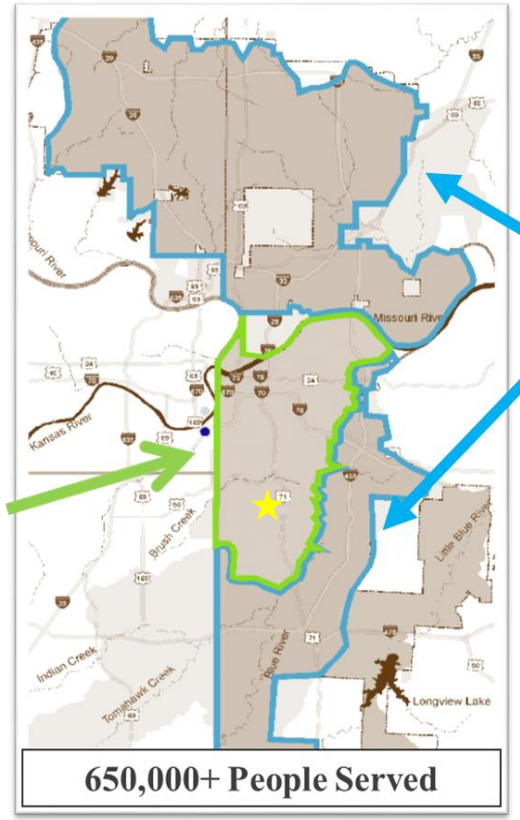
smartsewer
INNOVATION & INFRASTRUCTURE TO LAST A LIFETIME

In 2010, the City of Kansas City, Missouri entered into a **Consent Decree** with the United States Environmental Protection Agency (EPA) to **reduce the annual volume of overflows from the City's sewer systems.** KC Water's Smart Sewer program is a **30-year, multibillion-dollar program** to address this challenge through 2040.

Combined Sewer System

- 58 Square Miles
- 1,060 Miles of Pipe
- Dates back to 1857
- 90 Outfalls
- 6.4 B Gal. Overflow (avg./year)

Combined Sewer System
Separate Sewer System



Separate Sewer System

- 260 Square Miles
- 1,750 miles of pipe
- Dates Back to 1960's

Smart Sewer Program Goals

smartsewer
INNOVATION & INFRASTRUCTURE TO LAST A LIFETIME

85% capture of wet weather flow by 2040 through:

- Cost-effectively integrating 480 greened acres
- Embracing technological innovations
- Using advanced intelligent data-driven decision support platforms
- Realizing increased levels of protection of public health and the environment

480
GREEN ACRES

General Project Boundaries

- **North:** 55th Street
- **South:** East Gregory Boulevard
- **East:** U.S. 71 Highway
- **West:** Morningside Drive

Project Goals

Create hundreds of "Green Acres"

WHAT IS A "GREEN ACRE?"
A green acre is an acre of impervious cover that is retrofitted to utilize green stormwater infrastructure which manages stormwater using source controls such as infiltration, evaporation, transpiration, decentralized storage and reuse.

Reduce combined sewer overflows by collecting millions of gallons of excess storm water

DANIEL MORGAN BOONE PARK

Develop a preliminary design of the recommended design alternatives

Work with the community to evaluate design alternatives for the project which incorporate green infrastructure elements and stormwater collection

Inline Concept:
Centralized Feature within Town Fork Creek

Inline Concept

- Green infrastructure is **‘in-line’** with Town Fork Creek.
- Excavate north bank of Town Fork Creek to capture stormwater
  - Maximum depth ~20-feet
  - ‘In-line weir’ – structure in creek to back flow into excavated area
  - Weir will increase flood risk for very large floods

Inline Concept

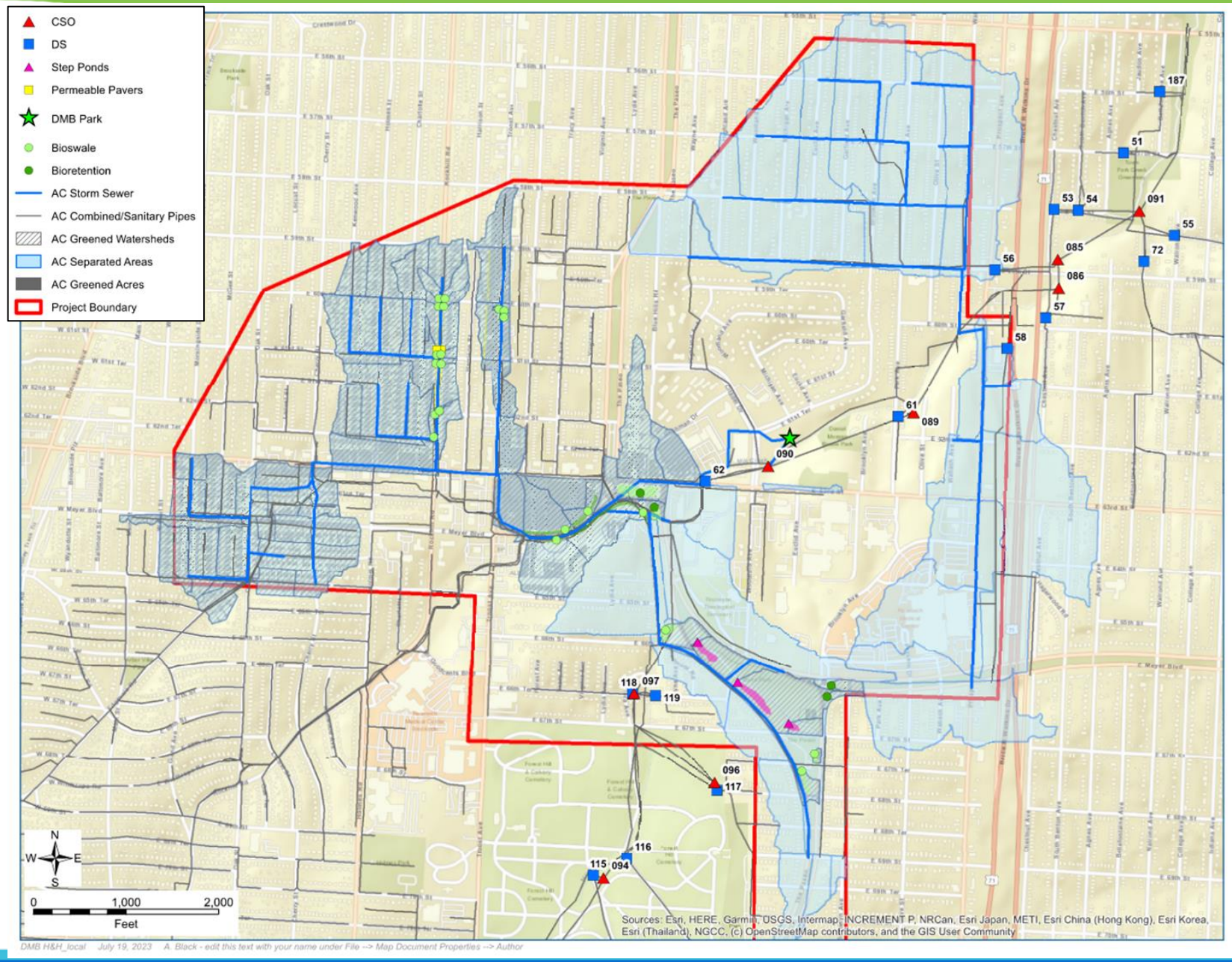
Inline Concept

Offline Concept:

Green Infrastructure through the Watershed (Preferred Alternative)

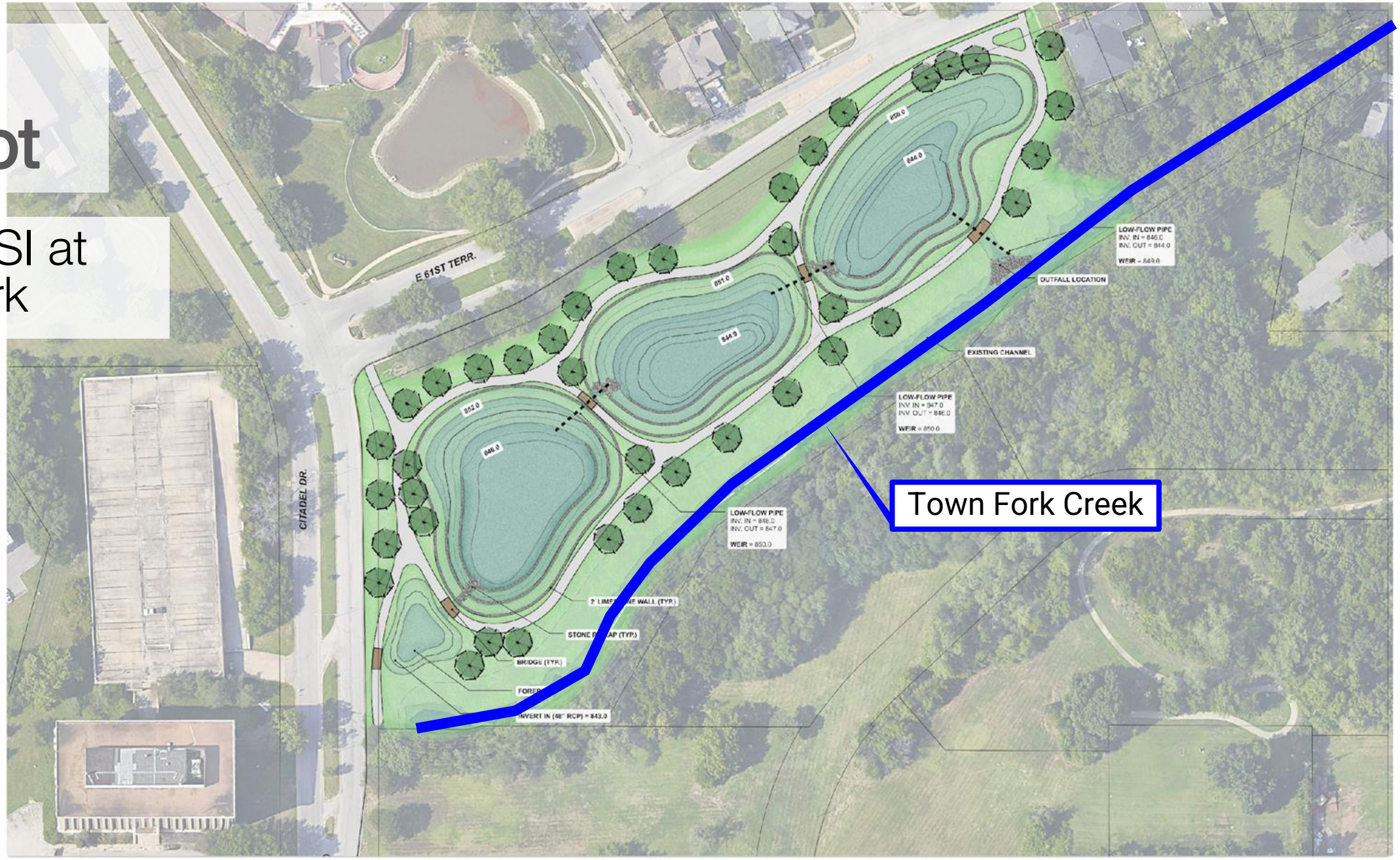
Offline Concept

- Offline green infrastructure facility within Daniel Morgan Boone Park
- Stormwater collection system
  - 664.0 acres
  - 50,050 linear feet new storm sewer, ranging 6” to 48” diameter
- Green infrastructure throughout watershed
  - 7 sites
  - Permeable pavers, bioretention, bioswales, step pools



Offline Concept

- Offline GSI at DMB Park



Offline Concept

Typical Day

Offline Concept

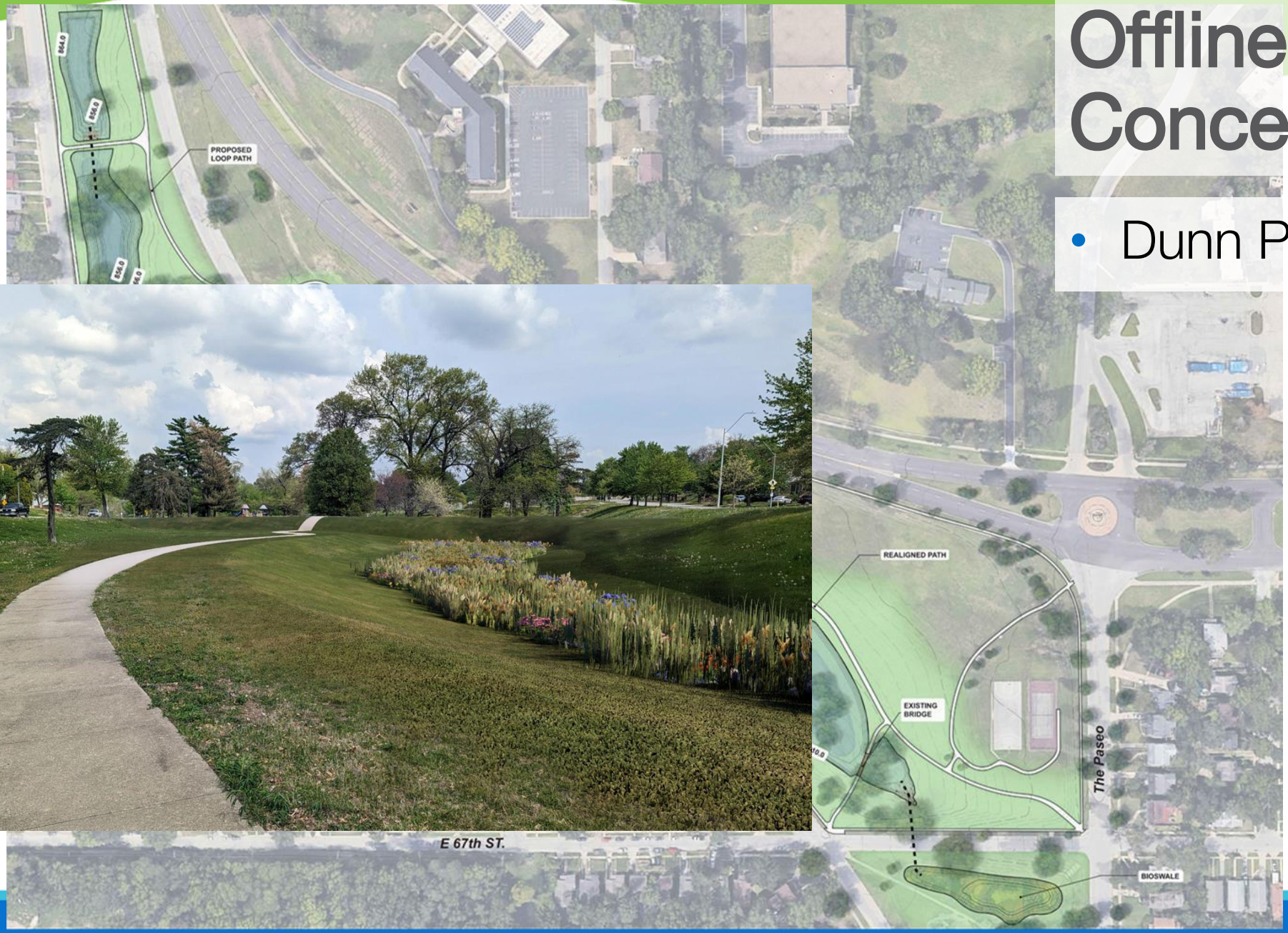
24 - 48 hours post rain event

Offline Concept

Typical Day

Offline Concept

- Dunn Park



Offline Concept

- Rockhill Road Bioswales and Permeable Pavers

Offline Concept

- Meyer / Paseo

Compare Concepts

Outcomes Evaluation Criteria

CSO Reduction
Green Acres
Capital Cost
Permitting
O&M Lifecycle Cost
Sustainability / Envision
Community Benefits and Impacts
Potential Enhancements and Betterments
Implementation Risks

Outcomes Evaluation Criteria

Evaluation Criteria	Offline Concept	Inline Concept
CSO Reduction	✓	✓
Green Acres	✓	✓
Capital Cost	✓	–
Permitting	✓	–
O&M Lifecycle Cost	–	✓
Sustainability / Envision	✓	–
Community Benefits and Impacts	✓	–
Implementation Risks	✓	–

Public Feedback Received

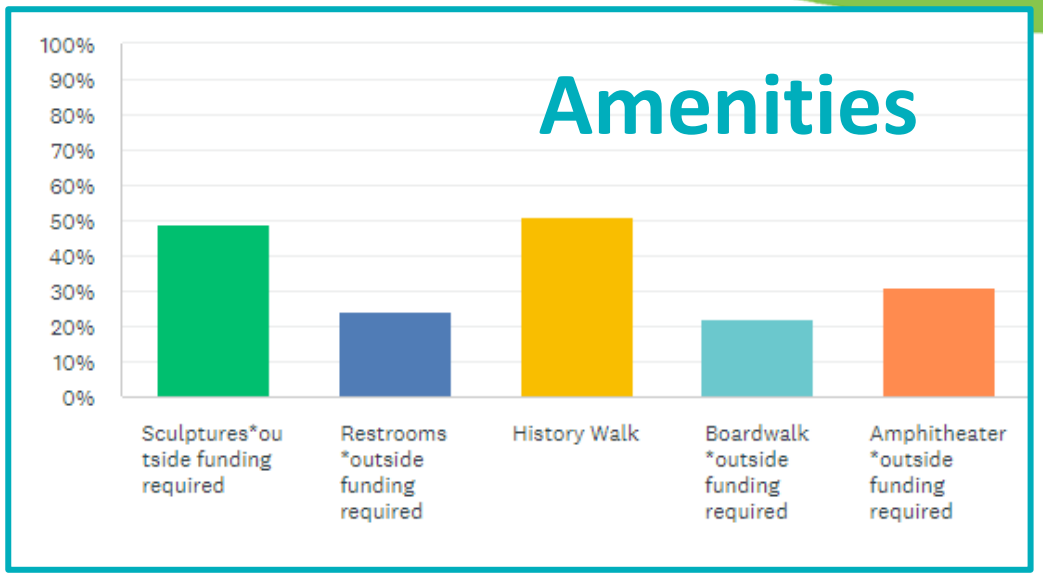
Key Needs and Comments

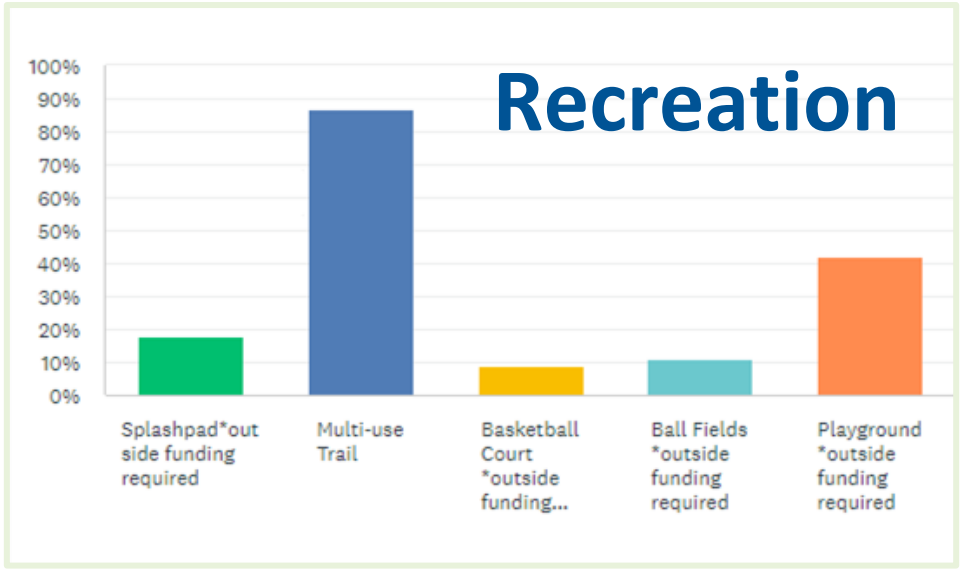
- **Maintenance** - need to establish the responsible entity (City department) that will maintain the green infrastructure and amenities portions of the project upon completion.
- **History** - need to consider the cemetery and archeological history of the park in the planning and construction processes.
- **Protection** - need to use some type of barrier around the pond to keep the community safe.
- **Depth of Pond/Flooding** - concerns the pond in the Inline design concept is too deep, increases flood risk to nearby properties, and will be unsafe for the community and children.
- **Drainage Period**- concerns that after a rain event, there will be standing water for longer than the 24-48 hours timeframe anticipated for draining.
- **Funding** - need to collaborate with the 5th District Councilmembers and KC Parks to maximize funding for park amenities.
- **Odor** - sewer odor from the park is already pungent and can be smelled by abutting residents and they want it improved, if possible.
- **Nuisance** - concerns that standing water will result in more mosquitos and geese flocking to the area. ‘

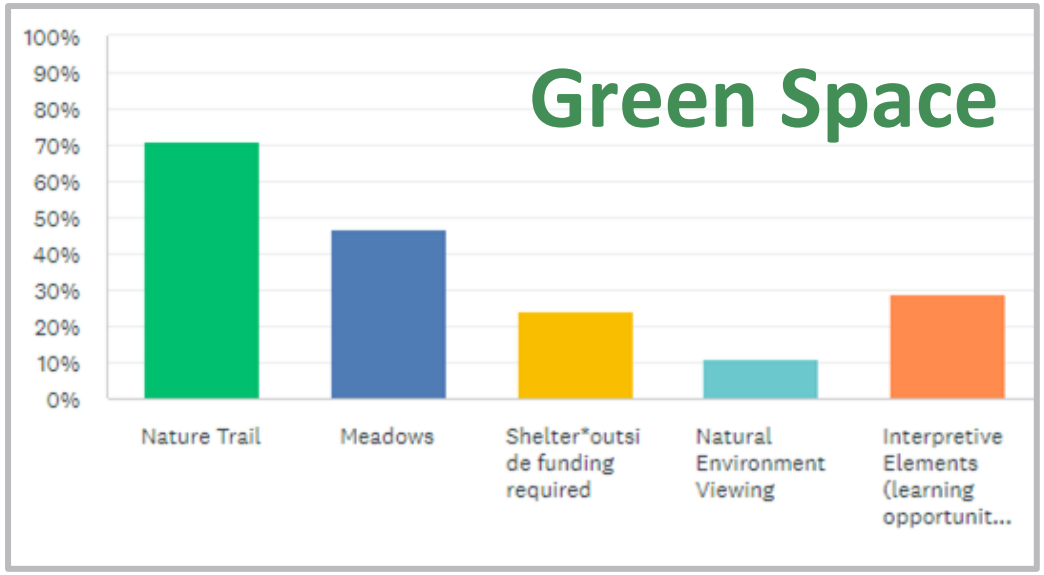
Compare and Contrast via Public Feedback

	Offline (preferred)	Inline Concept
Maintenance		**X**
History	**X**	**X**
Protection	**X**	
Depth of Pond/Flooding	**X**	
Funding	**X**	
Odor	**X**	**X**
Nuisance	**X**	

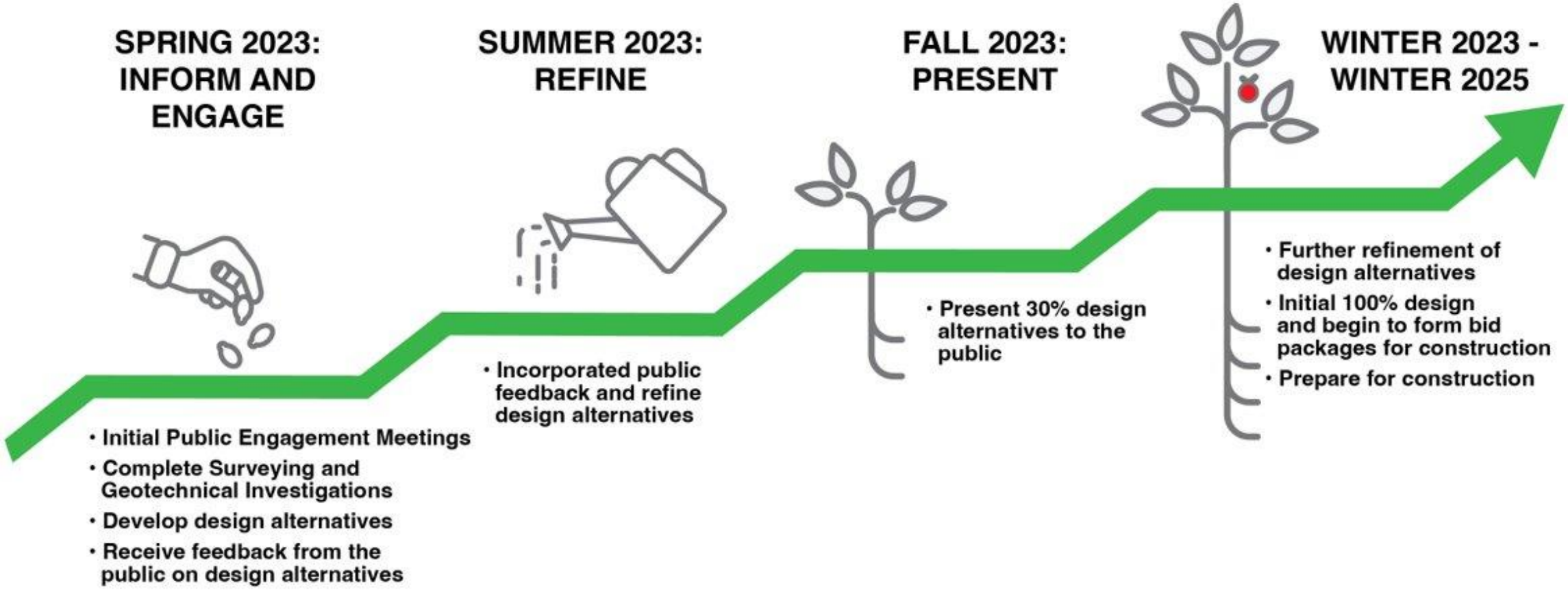
Public Meeting #2 Summary







Project Schedule



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