

DRAFT

CITY OF SPRINGFIELD

RECOVERY AND RESILIENCY PARTNERSHIP PROJECT



OVERVIEW

Developing sustainable community strategies for resilient stormwater management and greenspace connectivity in support of long-term recovery.



COMMUNITY INPUT

Different options for community input were provided and each option covered the same information so participants could choose the option that worked best, particularly in context of Covid-19 safety concerns.

- City Commission Meeting on July 6, 2020 with call-in option.
- Posters on display at City Hall accompanied by a paper survey.
- Virtual open house via the project web page with video presentations and online survey.
- Stakeholder meetings via conference call.

Overall the responses were supportive and enthusiastic for the future of the city. A community input summary is provided in the Appendix. The concepts on the following pages were revised based on the input provided.

INTRODUCTION

In October 2018, Hurricane Michael made landfall and had catastrophic impacts on communities in the Florida panhandle. Recovery will take many years of hard work, planning and community commitment.

The resources to support the long-term recovery of the city and the integration of resiliency to future storm-related events will be a significant challenge for the immediate future as well as an opportunity. The City of Springfield Recovery and Resiliency Partnership Project (R2P2) outlines a set of sustainable design strategies for improving resilience and supporting long-term recovery.

- Integrate long-term sustainability and resilience into rebuilding.
- Develop a vibrant, walkable commercial district to support local businesses.
- Develop a welcoming, mixed-use gateway to support the commercial district.
- Create a waterfront park to reduce flooding and provide recreational access to Martin Lake.
- Integrate sustainable water features into city infrastructure to manage stormwater and create inviting civic spaces.
- Create safe, designated paths connecting local businesses and community amenities.

ABOUT

The Recovery and Resiliency Partnership Project (R2P2) is a technical assistance initiative to support the recovery of Florida Panhandle cities provided by the U.S. Federal Emergency Management Agency (FEMA) Integrated Recovery Coordination field operations and the U.S. Environmental Protection Agency (EPA), Region 4.

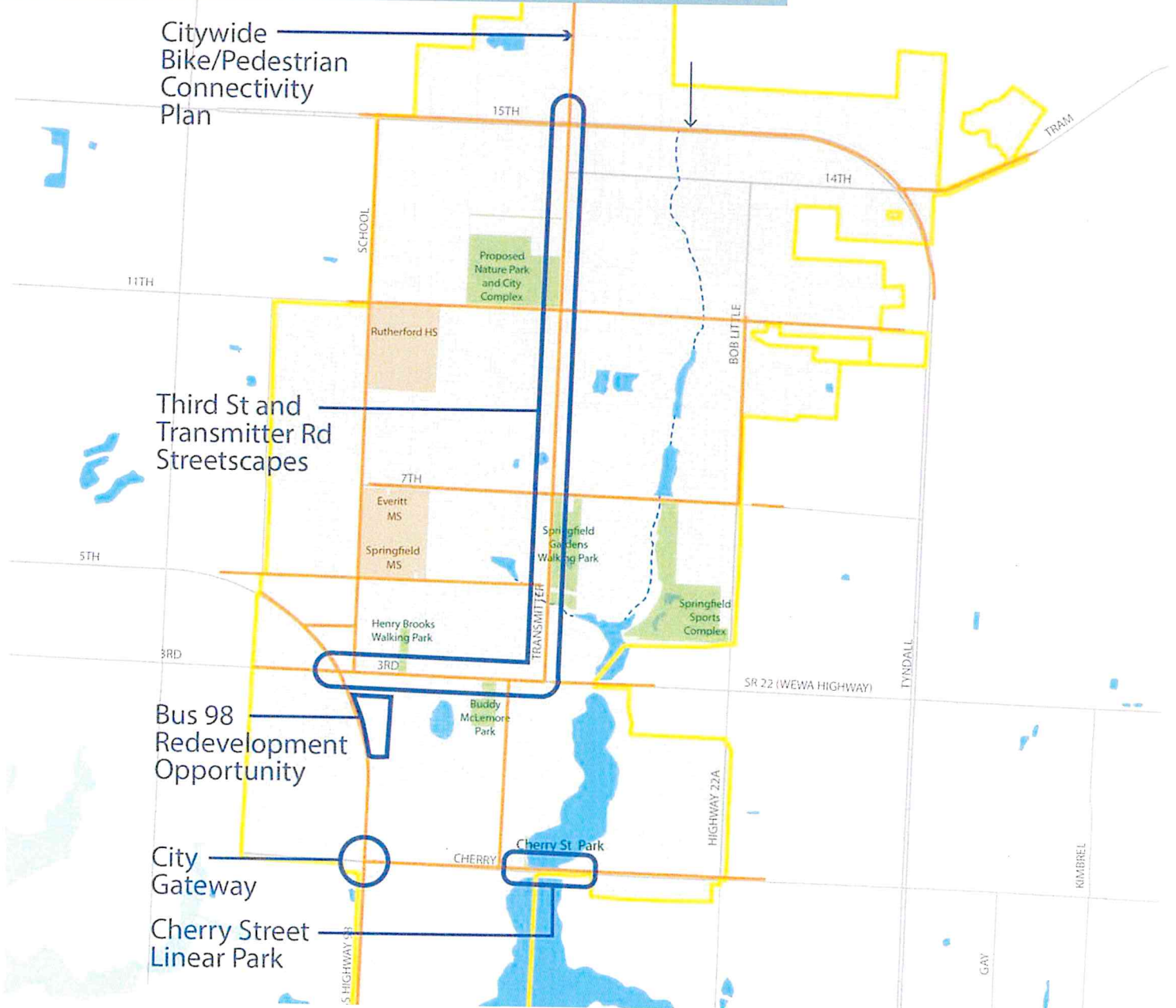
FOCUS

The City of Springfield identified four areas within the city that have potential to support revitalization and long-term economic and ecological resilience to bolster the community's ability to withstand and recover from potential storm events like Hurricane Michael.

The technical assistance team worked with the city to develop designs for each of the project sites, as well as a citywide connectivity plan that proposes safe pedestrian and bicycle options.

Design Projects include:

Business 98 Revitalization	4-5
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Citywide Connectivity	12-13



SUSTAINABILITY & RESILIENCY

Integrate long-term sustainability and resilience into rebuilding.



PRINCIPLES

The design options in this report address Springfield's specific goals and challenges by integrating the principles of resiliency, alternative transportation, health and wellness, and vibrant public spaces into stormwater management. This approach increases resiliency of the stormwater management while improving public spaces and opportunities to bike and walk.



RESILIENCY

Many sustainability features are part of larger design strategies to increase resiliency during storm events, such as slowing stormwater runoff by collecting and detaining water temporarily to reduce damage. Designs also include strategies to increase resiliency by creating places and spaces that support economic development, such as greenways and commercial opportunities to attract visitors and boost employment. Design tools and strategies to support economic recovery and build resilience for future storm events are highlighted within each design concept.



HEALTH & WELLNESS

Increasing opportunities for health and wellness can strengthen a community's resiliency by increasing wellbeing and community ties through exercise and social interactions. In addition, recreation amenities can bolster economic recovery as recreational tourism grows in popularity. Providing opportunities to explore the natural environment is linked to improved physical, social and mental health.



ALTERNATIVE TRANSPORTATION

Providing infrastructure for safe travel by foot, bicycle and paddle boat can reduce vehicular traffic and encourage healthier lifestyles.



VIBRANT PUBLIC SPACES

Creating attractive and welcoming public spaces brings people into downtown to increase resident and visitor spending, boosts local employment and leads to more local investment. Placemaking strategies such as signage, public art, and plantings help create vibrant spaces that build local pride and attract visitors to the area.

STRATEGIES

The design options on the following pages address specific challenges by integrating best practices to address stormwater while providing amenities to improve public spaces and biking and walking safety.

Each design option integrates one or more of the tools described on this page to help manage the volume, flow and/or treatment of stormwater.

The icons are included on the concept design plans to indicate the tools used.



PERVIOUS PAVEMENT

Pervious concrete and asphalt have proven

viable alternatives to reduce stormwater runoff volume, rate, and pollutants.



RAINWATER STORAGE

Capture systems collect and store stormwater for specific purposes, such as irrigation, and often can hold water for a significant period of time.



WETLAND RETENTION

Enhancing existing wetlands can provide stormwater detention, improved water quality, increased habitat and new recreational amenities.



WATERWAY RESTORATION

Vegetated buffers on either side of a waterway enhance watershed health by moderating water runoff quantities and improving water quality. The vegetation can intercept, absorb, and infiltrate surface runoff to help moderate the peak runoff rates during rain events, which reduces erosion, sedimentation of the channel, keeps water cool, and supports aquatic habitat.



POLLINATOR GARDENS

Many types of plants, including fruit and vegetable crops, depend on animals (such as butterflies, bees and birds) for pollination. Using pollinator-friendly plants can also help support these important species.



NATIVE PLANTINGS

Incorporating vegetation into the landscape is a stormwater management technique that mimics natural drainage. Vegetated areas intercept and infiltrate rainfall to decrease stormwater volumes and can also remove pollutants.



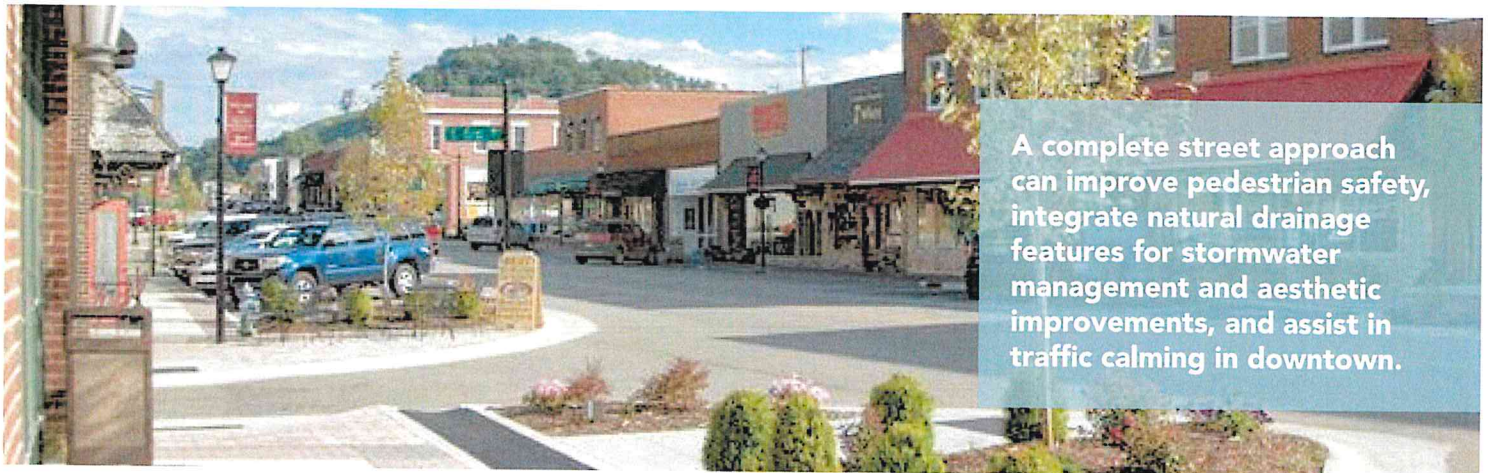
WATER REUSE

Recycled water can be used for non-potable uses such as irrigation and industrial use and distinguished from potable water by the use of purple pipes. Reusing nonpotable water for nonpotable use conserves drinking water resources and reduces costs of water bills.



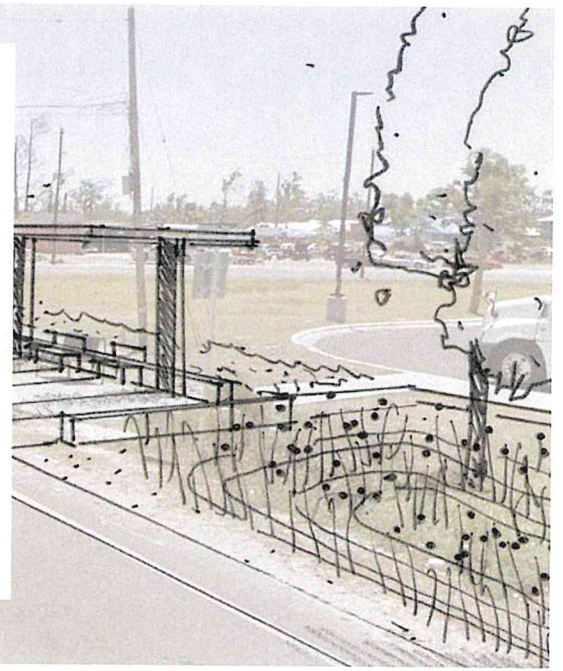
VEGETATED SWALES (BIOSWALES)

Vegetated swales, sometimes referred to as bioswales, are broad, shallow channels designed to convey and infiltrate stormwater runoff. Swales reduce stormwater volume and improve water quality through infiltration and vegetative filtering. Swales can be planted with grasses, perennials, shrubs and trees to increase aesthetic and habitat value.



BUSINESS 98 REVITALIZATION

Develop a vibrant, walkable commercial district to support local businesses.



EXISTING CONDITIONS

Business 98 is the key entry into Springfield from Panama City (from the west) and Tyndall (from the east). A large paper plant, vacant properties and heavy truck traffic along the roadway are challenges to economic development. The city is interested in projects and investments along Business 98 that can revitalize the corridor and enhance the experience for drivers, pedestrians, and bicyclists along this key thoroughfare.

Business 98 intersects Third Street, which extends through the city center and provides connections to schools, city hall, the library and two parks. Although plans have been developed to widen Third Street to four lanes, the city prefers two lanes or consideration of three lanes which would include alternating turn lane and median. A sidewalk has been constructed on the north side of the street.

DESIGN CONCEPTS

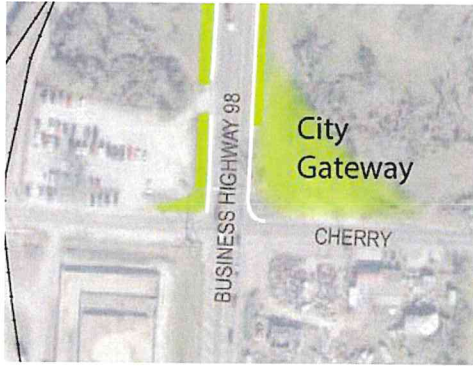
A vacant parcel at the corner of Cherry Street and Business 98 offers an ideal gateway location to provide signage and plantings to identify Springfield and welcome visitors traveling north into the city.

A multi-modal path on the south side of Third Street and street plantings along both sides will improve safety and provide a more welcoming corridor through the city center for drivers, pedestrians and bicyclists, as well as those using motorized wheelchairs, scooters and other increasing forms of alternative transportation.

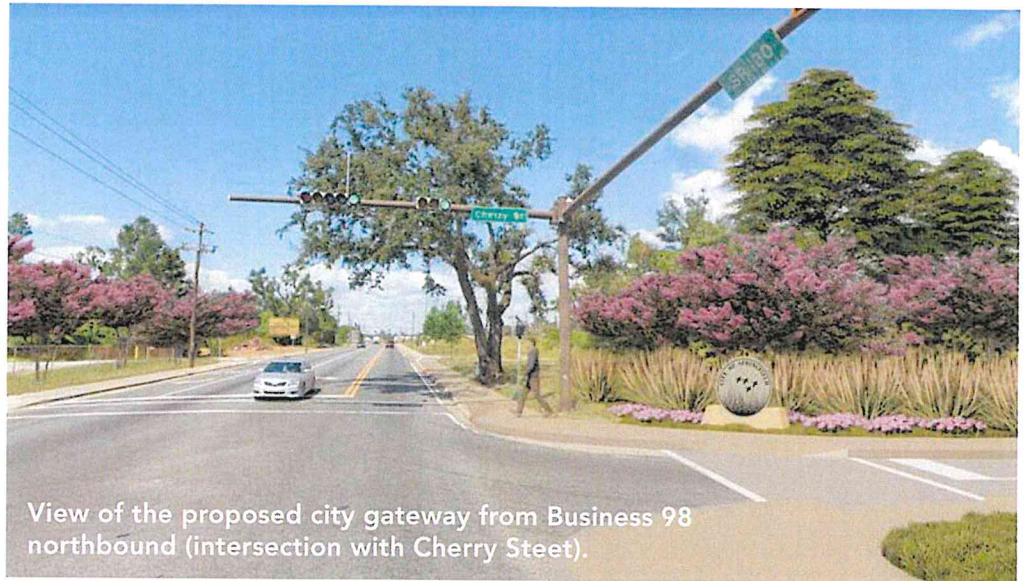


CITY GATEWAY AND BUSINESS 98 STREETScape

Signage and plantings of crape myrtle, which Springfield has adopted as the city tree, will help reinforce the city's identity along Business 98. Street plantings that continue from the gateway north along the street can make the experience along the roadway feel more pleasant and cohesive.



City gateway location.



View of the proposed city gateway from Business 98 northbound (intersection with Cherry Street).



Existing View

THIRD STREET MULTI-MODAL STREETScape

Proposed improvements include shade trees, crape myrtles, a separated multi-modal path on the south side of the street, on-street bike lanes, separated sidewalks on the north side of the street, and marked crosswalks.



New development is planned for the intersection of Third Street and Business 98 including a Goodwill Store and Burger King, as well as a proposed community center and new recreation and commercial development.



View of proposed Third Street improvements at the intersection of Business 98



Existing View

BUSINESS 98 REDEVELOPMENT

Develop a welcoming, mixed-use gateway to support the commercial district.



EXISTING CONDITIONS

The U.S. Army Corps owns a large underutilized property that is adjacent to active commercial properties fronting Business 98 and Third Street. The property is used periodically for storing dredge equipment.

Better drainage is needed in this area to address local flooding that occurs during rain events often closing one of the travel lanes along Business 98.

DESIGN CONCEPTS

Redevelopment of this underutilized property can offer a mix of uses or a phased approach to integrate new recreation uses and commercial development. These options activate this key parcel and enhance the visual appeal of the corridor.

Integrating better stormwater management on site addresses local flooding concerns. The holding capacity of the stormwater features can be sized to accommodate the scale of development (see options on an adjacent page). Natural drainage approaches to stormwater management can include features such as linked bioretention ponds or pervious parking lots with planted infiltration strips that serve as planters. See the Appendix for more information about the benefits of nature-based stormwater management and the option of creating a district wide stormwater system that will slow and capture stormwater across multiple properties.



Recreation Example - Planted retention basins temporarily store runoff from parking areas. Overflow drains, like the one in the background of this image, divert water to the stormwater system if the basin fills.



Development Example - Parking lot swales collect runoff from parking lots and direct the stormwater to a retention area. Planted swales and retention basins help to filter stormwater and prevent flooding.

RECREATION FOCUS

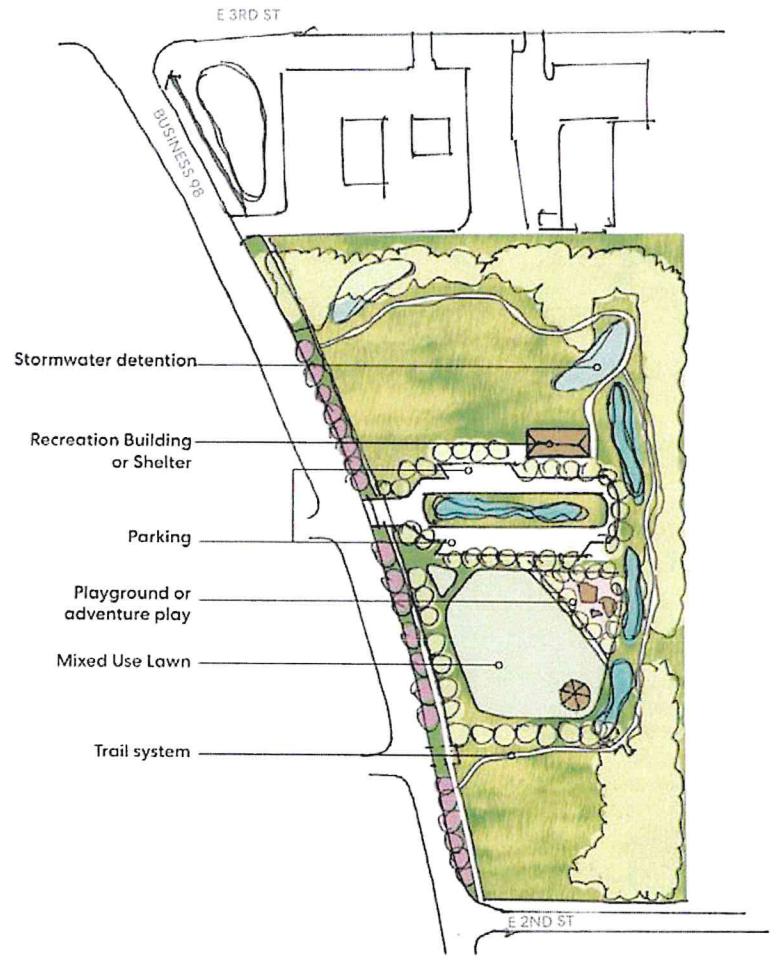
This option includes a large public park in the middle portion of the parcel with a multi-use lawn, play, and recreational support structures.

There is a dedicated parking lot for this new park with an entry off Business 98.

Site stormwater collection is spread through a series of ponds on the perimeter of the parcel.

Dense canopy acts as a buffer against the active rail lines to the east.

A network of trails ties together the planned recreation and natural areas into a circuit



MIXED USE FOCUS

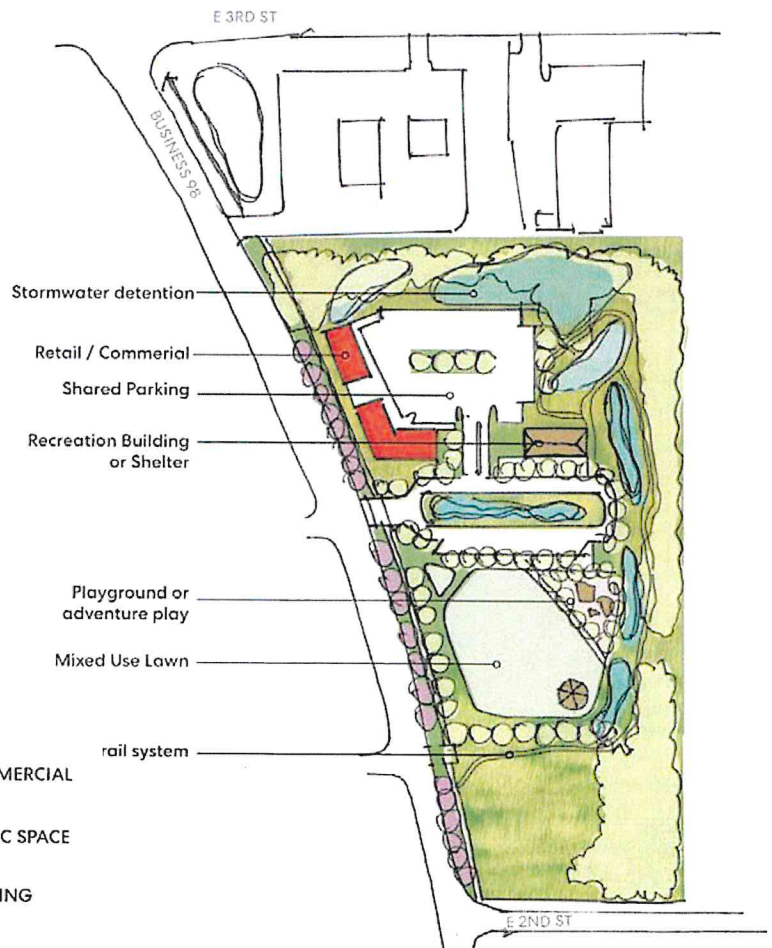
This option adds commercial development to the northern areas of the parcel with opportunities for small outdoor areas adjacent to each business area.

Access to the northern business area is off Business 98 utilizing the same drive that serves the recreational elements.

The central drive loop adjacent to the recreational area could allow for programming such as food trucks or markets to set up adjacent to these park facilities.

Due to increased impermeable surfaces, additional stormwater ponds are added to the north.

A trail network ties together the planned recreation and natural areas into a circuit.



CHERRY STREET LINEAR PARK

Create a waterfront park to reduce flooding and provide recreational access to Martin Lake.



EXISTING CONDITIONS

Cherry Street Park currently includes a small boat launch area for Martin Lake. A narrow linear green space between Cherry Street and Martin Lake provides open lake views. The city is interested in using the green space for recreation such as gathering and picnicking but flooding at Martin Lake continues to erode the land on the north side of the Cherry Street crossing.



Erosion on north side of Cherry Street at Martin Lake



Boat ramp area at Cherry Street Park

DESIGN CONCEPT

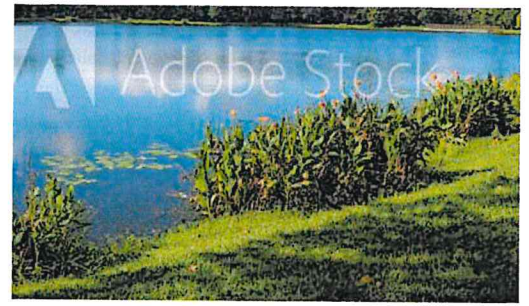
Two design concepts propose bolstering the eroding lake edge to provide safe access and gathering spaces along the waterfront. These concepts can be implemented to provide near-term recreation while long-term planning is underway to address flooding and potential sediment contamination at Martin Lake. The proposed linear park is ADA accessible, and could include features such as lighting, seating, new trees and planting or other structures can be temporarily installed for events.



- Parks
- Schools
- Proposed walk/bike connections

OPTION A: BANK EXPANSION AND NATURALIZED EDGE

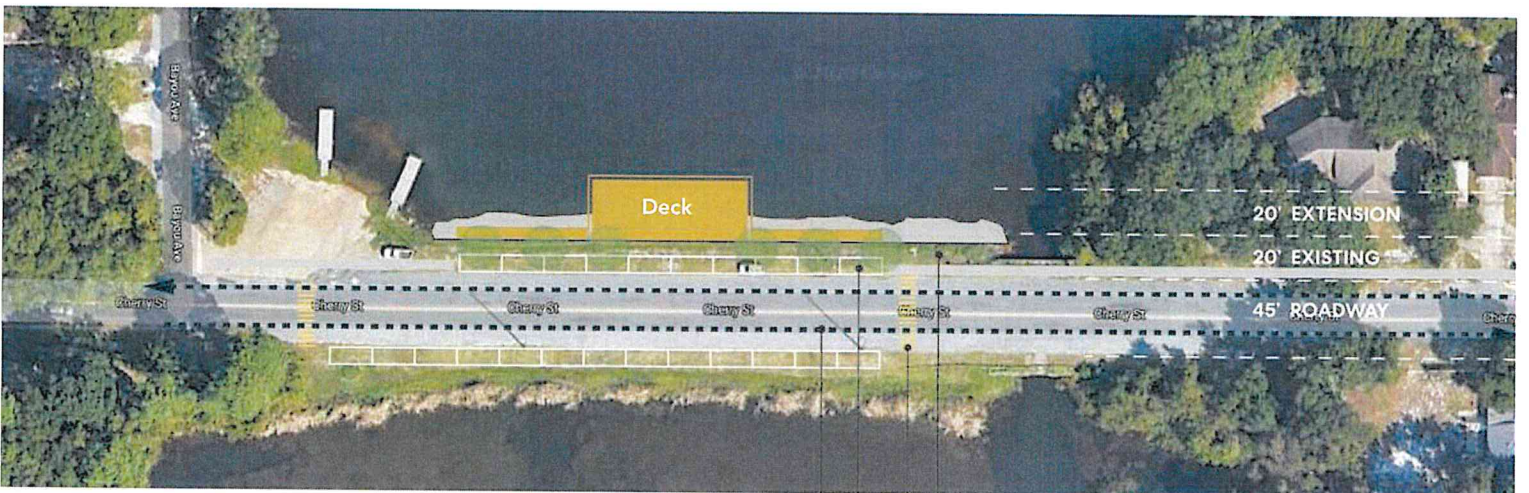
The width of the linear space is extended into the lake 20 feet to expand the usable recreation space. The expanded edge would include a sloped planted edge into the water, trees are added to provide shade and protection between the designated parking areas and the park space. Sidewalks along Cherry Street provide safe pedestrian access to the park.



- SIDEWALK
- PEDESTRIAN CROSSING LINES
- PARALLEL PARKING SPACES (BOTH)
- ON STREET BICYCLE LANES

OPTION B: DECK EXTENSION AND OVERLOOK (PREFERRED)

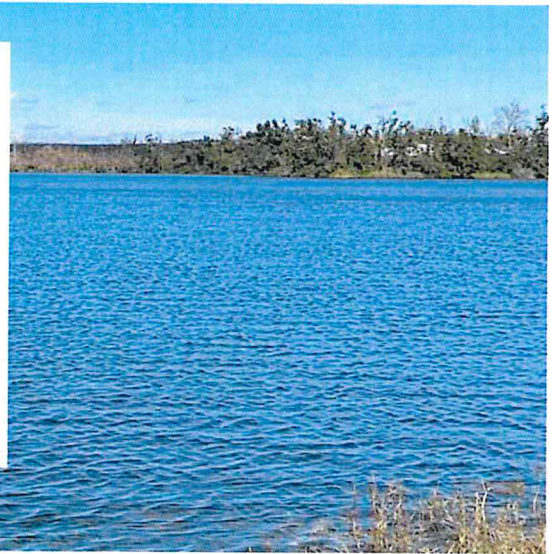
This option includes a dock extending 20 feet from the current park edge that would include a railing and built in seating. The existing shoreline is reinforced with riprap along its extent to control erosion. A boardwalk extends along the waters edge as well. New trees are planted between the designated parking and the park to provide protection. Sidewalks along Cherry Street provide a safe pedestrian access to the park.



- SIDEWALK
- PEDESTRIAN CROSSING LINES
- PARALLEL PARKING SPACES (BOTH)
- ON STREET BICYCLE LANES

CIVIC GREEN INFRASTRUCTURE

Integrate sustainable water features into city infrastructure to manage stormwater and create inviting civic spaces.



EXISTING CONDITIONS

Springfield's proximity to the bay and Martin Lake increases its vulnerability to major storm events which cause inland flooding from sea storm surge. Traditional stormwater infrastructure (drains and pipes) can be overwhelmed by large water volume. Integrating nature-based stormwater features (or green infrastructure) can bolster the city's resiliency in typical and major storm events.

DESIGN CONCEPTS

Nature-based stormwater features and drainage systems limit the negative impacts of stormwater runoff by utilizing plants, trees, and soils to clean runoff and manage stormwater flow. Vegetated swales, stormwater cascades, and small wetland ponds allow soils to absorb water, slowing flows and filtering out many contaminants. Ideal locations for large scale natural drainage strategies include city properties, parks, vacant lands, and new developments. There are a range of additional community opportunities and benefits provided by nature-based stormwater features:

- Potential to increase community spaces.
- Passive recreation such as trails.
- Reuse water for watering landscaping.
- Habitat for pollinators and other wildlife.
- Beautification using drought tolerant native plants, rocks and other low maintenance natural features.

Examples of natural drainage features



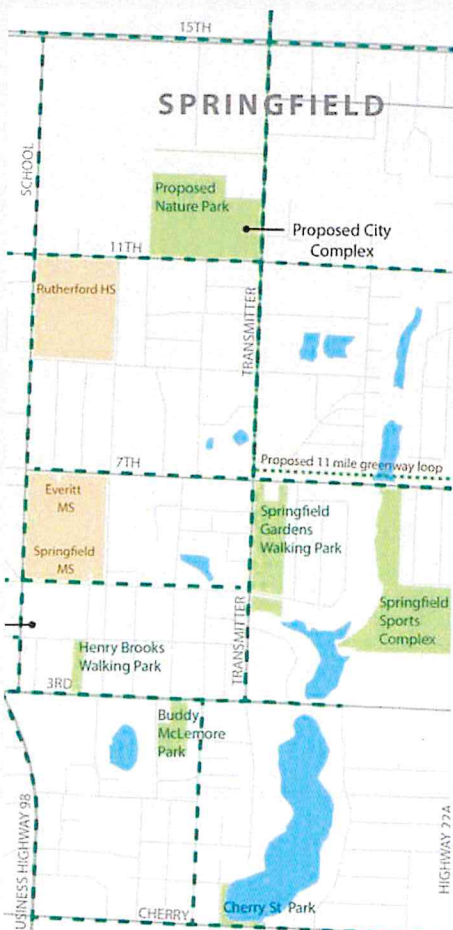
Park Rain Garden



Parking Lot Bioretention

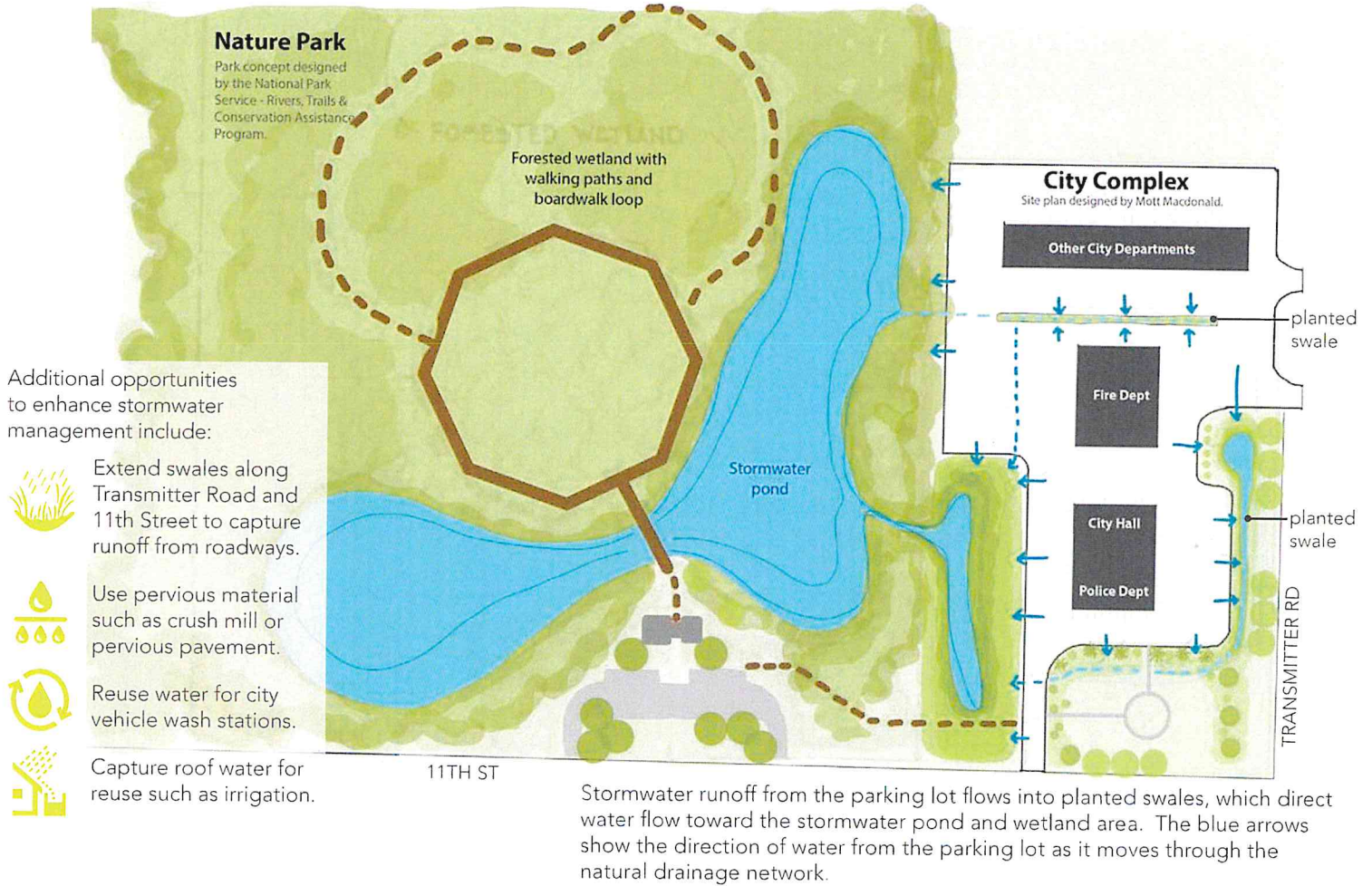


Multi-use Trail with Planted Swale



NEW CITY COMPLEX

The City of Springfield is in the planning phase of a new city complex and nature park at the corner of 11th Street and Transmitter Road. The stormwater management concept for the proposed complex illustrates how nature-based features can be integrated into new development and reduce water entering the city's stormwater treatment system, decreases flooding, and provides recreation opportunities. A sustainable approach can also include strategies such as water and energy conservation, transportation alternatives, and green building materials. See the Appendix for more information about green public buildings and disaster resilience.



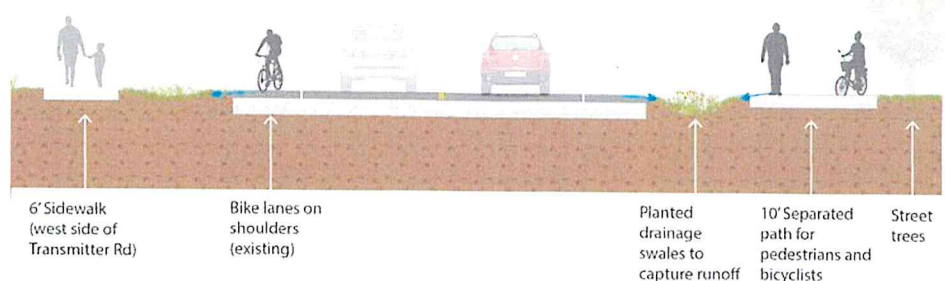
TRANSMITTER ROAD GREENWAY

The new city complex and nature park planned for the intersection of 11th Street and Transmitter Road will create a new northeast gateway into the city. It will be important to provide safe pedestrian and bicycle connectivity along this major north-south thoroughfare, which adjoins residential neighborhoods and the popular Springfield Gardens Walking Park. Plans to widen Transmitter Road north of 15th Street are in progress. While the road shoulders have been extended for bike lanes, the road lacks sidewalks and safe crossings.



Design Concept

Proposed improvements for Transmitter Road include shared multi-modal path options along the east side from Third Street to Orlando Road (north boundary of city), and a continuous sidewalk on the west side of the road.



CITYWIDE CONNECTIVITY

Create safe, designated paths connecting local businesses and community amenities.



CITYWIDE CONNECTIVITY

Within the city, Springfield lacks sidewalks and bike infrastructure linking key destinations and assets. Extending road, bike and pedestrian improvements across Springfield are important for safe connections within the city and into Parker.

The connectivity plans shows suggested citywide bicycle and pedestrian network showing recommended path types based on existing street conditions and city goals for safe bicycle and pedestrian activity.

This plan uses the following guide for integrating bike/pedestrian safety based on road type and safety considerations.

Corridors and Highways

Visually or physically separated paths that buffer traffic:

- Separated bike lanes and sidewalk
- Separated multi-use path

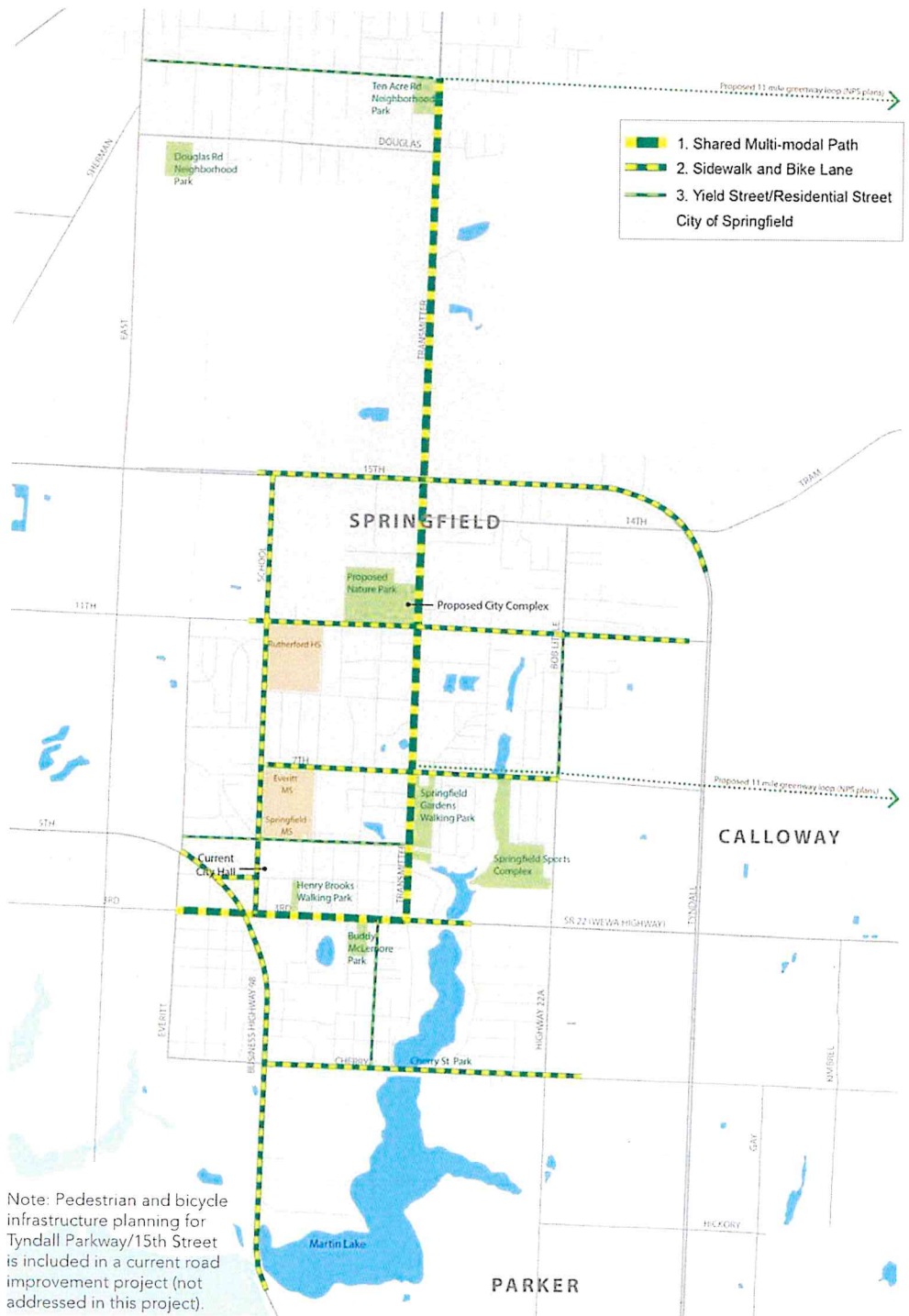
Local Roads

Well-marked shared conditions if necessary, or separated paths:

- Separated bike lane and sidewalk
- Shared bike lane and sidewalk

Neighborhoods Streets

Yield street conditions allow all users to share the roadway safely.



Note: Pedestrian and bicycle infrastructure planning for Tyndall Parkway/15th Street is included in a current road improvement project (not addressed in this project).

SAFE PEDESTRIAN AND BICYCLE CONNECTIONS

The map on the left shows a proposed network for improved bike/pedestrian connectivity in Springfield to link parks, neighborhoods, schools and services.

Examples of recommended bike and pedestrian connections are shown on the right.



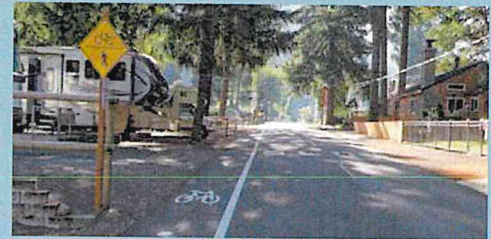
Separated bike lanes
On-street or on-sholder marked bike lanes designate space for bicyclists. (5' to 6' wide)



Separated multi-use paths
A wide paved path for a bicyclists, pedestrians, runners, scooters, and others traveling for recreation or transportation. (8' to 12' wide)



Shared bike lanes
Bicycles and vehicles share the roadway marked with signs.



Yield street
Pedestrians, bicyclists and motorists share narrow neighborhood streets. Pavement markings and signs can improve awareness and safety.



REGIONAL ASSETS & CONNECTIVITY

Regionally, Springfield is situated within reach of paddle trails and a proposed network of land trails. Connecting to these trails can create opportunities for Springfield to tap into economic development tied to growing regional recreation. The proposed trail routes can be adjusted to meet community needs.

MOVING FORWARD



KEY NEXT STEPS

The City of Springfield Recovery and Resiliency Partnership Project provides a robust vision to implement sustainable design strategies that support the city's recovery and improve resilience.

Implementation of the proposed design strategies will require a combination of actions to help move the projects forward. Key actions include:

- Prioritize which projects to initiate first.
- Identify project lead(s) and partners to implement and maintain the project.
- Continue to engage the public on timing, design development and design decisions.
- Conduct engineering studies and site plan designs to advance projects.
- Assemble funding, which may come from a variety of sources.
- Remain flexible and creative to respond to new opportunities.

ADDITIONAL INFORMATION

An appendix of additional information and resources, including design concept development, community input survey summary, funding resources and sustainability strategies is provided to support the implementation of these design concepts and is available at:

www.r2p2.skeo.com/springfield.

ACKNOWLEDGMENTS

The City of Springfield staff and leadership provided guidance and direction throughout the project and the community offered valuable feedback to inform the design concepts. Staff from a range of regional, state and federal agencies and organizations offered their technical assistance and expertise in helping the city connect their vision to implementation opportunities.

For more information about R2P2, please contact Rick Durbrow, U.S. EPA at Durbrow.Rick@epa.gov or call 404-562-8286

R2P2 Partners

