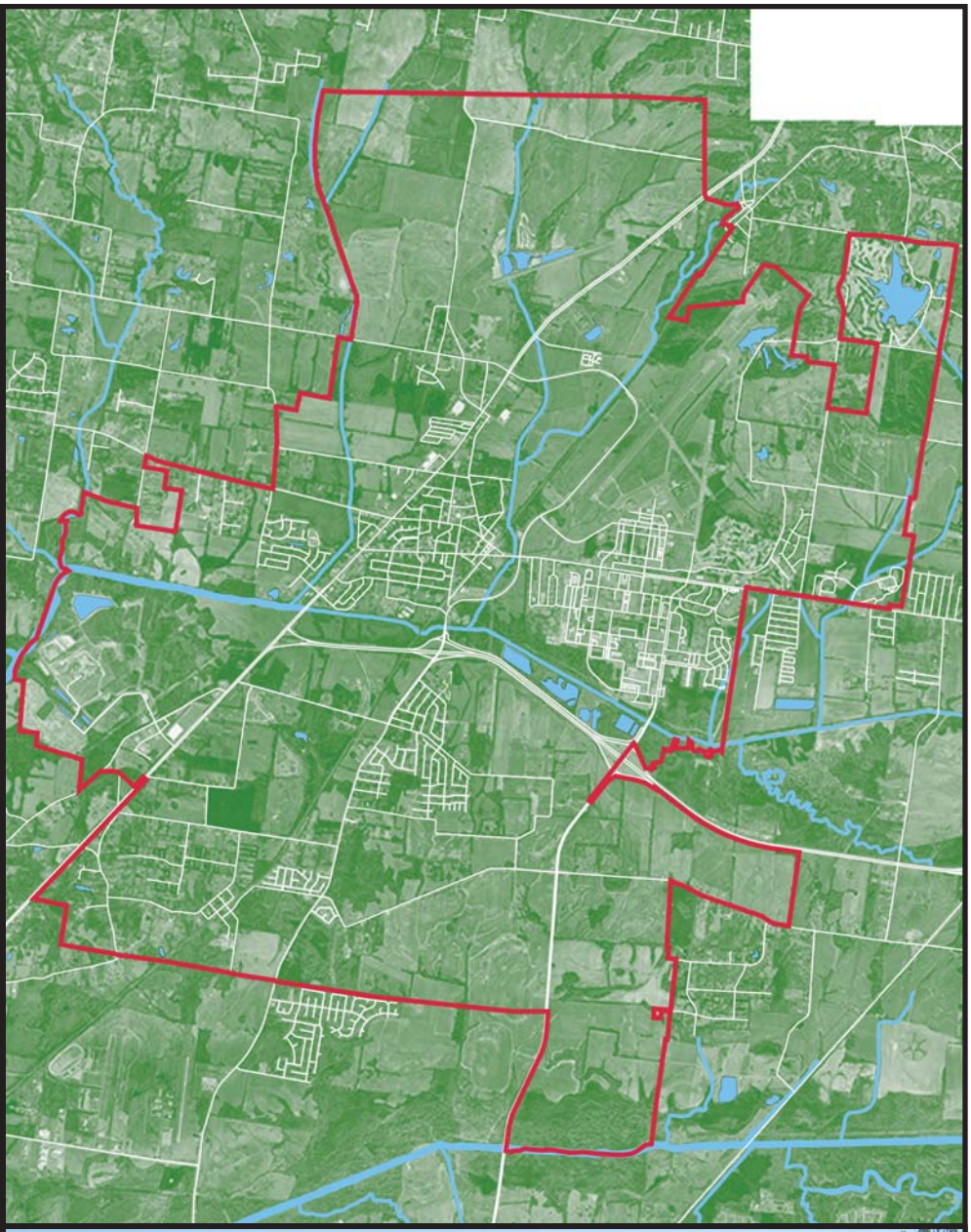


MILLINGTON GREENWAY PLAN

Prepared For: The City of Millington

Prepared By: Dalhoff Thomas design|studio

Come Home
Millington, TN
Welcome
from our Churches
and Civic Organizations

About This Project

In November 2011, the U.S. Department of Housing and Urban Development (HUD) awarded Shelby County Government the Sustainable Communities Regional Planning Grant to develop the Mid-South Regional Greenprint & Sustainability Plan. As a second phase of the overall plan, Shelby County awarded grants for localized planning to advance the regional vision. The City of Millington received a subplanning award to create a greenway plan that connects parks, recreational areas, employment centers, and residential neighborhoods throughout the city. The project will be a plan of how to link Millington's park system by trails and bike lanes, conserve key open spaces, protect waterways, provide alternative transportation options for citizens, promote a healthier lifestyle, and provide connections to Tipton County and Meeman-Shelby Forest State Park.

The City of Millington does not have a comprehensive greenways plan. Recently, a survey was conducted to poll community interest in creating a safe trail system. The goals of this plan are to inventory existing conditions, conduct public outreach through meetings and forums, and identify existing greenway corridors that could serve as a greenway connection such as waterways and utility easements. In addition, it will address general design criteria and standards for trail amenities such as surfaces, signage, widths, and accessibility.

The City of Millington Greenway Plan includes a base map of existing conditions, information gained from public outreach, and a greenway plan with information on existing park system and corridors, destination points, proposed corridors, and trail head areas.

Project Title:
City of Millington Greenway Plan

Prepared For:
The City of Millington
Mid-South Regional Greenprint Consortium

Prepared By:
Dalhoff Thomas design|studio

Publication Date:
September 2014

Table Of Contents

CHAPTER 1: INTRODUCTION

Acknowledgements 7
Project Need..... 9
Vision Statement..... 11
Goals and Objectives..... 11

CHAPTER 2: EXISTING CONDITIONS

Summary of Existing Documents 12
Site Evaluations 15

CHAPTER 3: GREENWAY NETWORK PLANS

Vision 38
Concept maps 40
Before/After Imaging..... 60

CHAPTER 4: DESIGN GUIDEILNES..... 66

CHAPTER 5: IMPLEMENTATION..... 74

CHAPTER 6: FUNDING SOURCES..... 78

Existing Community Facilities

Acknowledgements

The following organizations and individuals contributed greatly to the creation of the City of Millington Greenway Plan:

Grantor: Shelby County, Tennessee Office of Sustainability
Grantee: City of Millington, TN
Project Management: Dalhoff Thomas design|studio

City of Millington
Terry Jones, Mayor
Chris Dorsey, City Manager
Kate Armitage, Director of Arts, Recreation, & Parks
Jeremy Rochell, Parks, Grants, and Compliance Manager
Darek Baskin, City Engineer
Mike Lantrip, GIS Coordinator

Millington Greenway Advisory Committee:

Kate Armitage
Dianna Baker
Darek Baskin
Carrie Cullum
Larry Dagen
Leanna Dagen
Franklin Dakin
Nelda Dedeaux
Bethany K. Huffman
Thomas McGhee
Brett Morgan
Jeremy Rochell
David Wilkerson

Project Need

Currently the City of Millington lacks any type of unified vision or strategy for implementing a comprehensive Greenway plan. As a result, the City has not been able to take full advantage of its resources to be able to enhance the quality of life, environmental health, or economic opportunities for its citizens. Past efforts have included a Recreation Study that inventoried existing recreation facilities and made recommendations for future needs, but the issue of greenways was not addressed.

As part of their effort to make Millington the best it can be, the City's leaders and citizens have continued to recognize the value of open space, recreational options, and the importance of preserving the natural environment, while also understanding that both open space and trails are important to the quality of life of a diverse community. These goals have led to the creation of the Millington Greenway Plan. The Plan is designed to serve as a guide to develop an integrated, connected system of greenways, paths, and sidewalks to connect the existing park system, open spaces, and major destination points located throughout the City. One of the main goals of the Greenway Plan is to link these spaces to neighborhoods, and provide citizens with greater access to greenspace, as well as alternative transportation choices. The Greenbelt Plan will serve as a flexible, comprehensive, and long-range planning document. It is also a guide for identifying significant open space areas within the City, potential trail locations, and is a tool for planning and developing the entire Greenway system.

The Greenway Plan Includes:

- An overall vision for the City of Millington Greenway.
- Identification of potential pedestrian and bikeway linkages between key destinations.
- Proposed routes and corridors that take advantage of existing natural features, routes, and easements.

The Greenway Plan Does Not Include:

- A detailed plan of trail alignments that have been approved by all the appropriate public and private entities. While conceptual location plans are included, a more intense level of analysis should occur after the Greenway Plan has been approved and adopted. Potential connections must be subjected to an analysis of alternatives and appropriate environmental, engineering, and financial feasibility.

- An acquisition plan. This Plan does recommend some connections in areas not owned by the City. Determining the appropriate location of a greenway and whether easements could be granted in lieu of purchase should be analyzed in future studies.

- A comprehensive map of all greenways and bikeways in Millington. This Plan focuses on greenways of City-wide significance. There may be paths and bikeways that exist or are planned which are not reflected in this Plan.

- The 'perfect' plan. Preparation of this Plan included numerous public meetings and co-ordination with the City of Millington. While the City and its citizens have shown support for a comprehensive plan, there are likely to be various opinions as to what should be included in the Plan. The concepts proposed are intended to strike a balance among all viewpoints heard during the master planning process.

Through numerous public meetings with City staff and the Greenway Advistory Board, the design team was able to create a vision for the Greenway, establish a list of Goals and Objectives, identify priorities and possible route locations, and initiate the planning process to realize the goals of the Greeway Plan.

Vision Statement

- To establish a greenway plan that ensures public access within the greenway through an active and passive recreation park system with trails connecting each segment.

Goals And Objectives

1. Greenway should improve the quality of life in Millington through a trail network that provides facilities and programs designed to encourage active recreation.
2. The greenway should provide convenient and safe access to promote public health and increase fitness.
3. To establish a greenway/trail connection to destination points within the city.

4a. The greenway plan should be coordinated/integrated with the Mid-South Regional Greenprint Plan.
4b. Provide connectivity between neighborhoods and the existing school system.
4c. Provide multi-use trails within the greenway.
4d. Provide trail design standards.
4e. Greenway should promote and create economic impacts.

5. Greenway plan should be flexible and considered a long-range planning document.

6a. The greenway should be a tool for planning and developing new trails within the city.
6b. Greenway should create educational opportunities.

7a. Greenway should provide an alternative transportation option.
7b. Use the greenway system as a way to enhance existing neighborhoods.
7c. Identify and protect wetland and other sensitive areas.
7d. Use the greenway system as a way to transition between land uses.

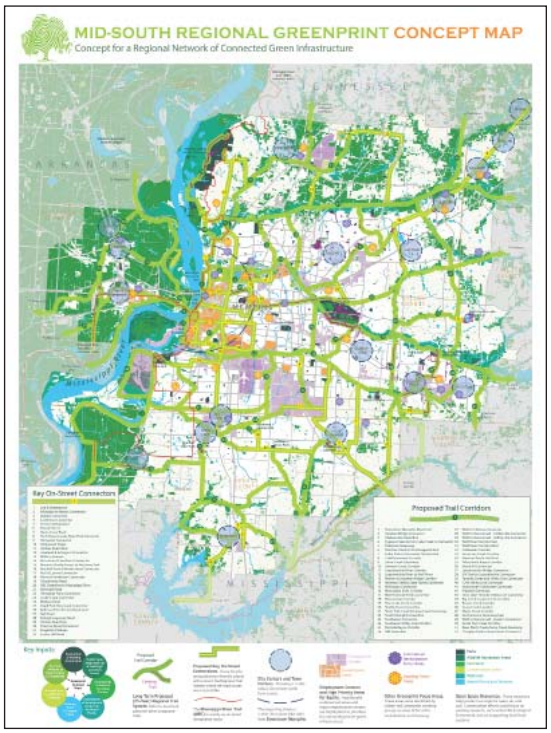
CHAPTER 2: EXISTING CONDITIONS

Existing planning efforts, recommendation, and research have covered issues relating to greenway planning in Shelby County. These efforts provide a valuable guide to this planning effort by addressing existing conditions, alternative transportation, greenways, land use, community growth and design standards on various levels relative to the study area. The goal of this section is to review and summarize these current plans as they relate to greenways and trails, so that the current process can begin to integrate previous ideas with new recommendations for the Greenway Master Plan.

Mid-South Regional Greenprint & Sustainability Plan

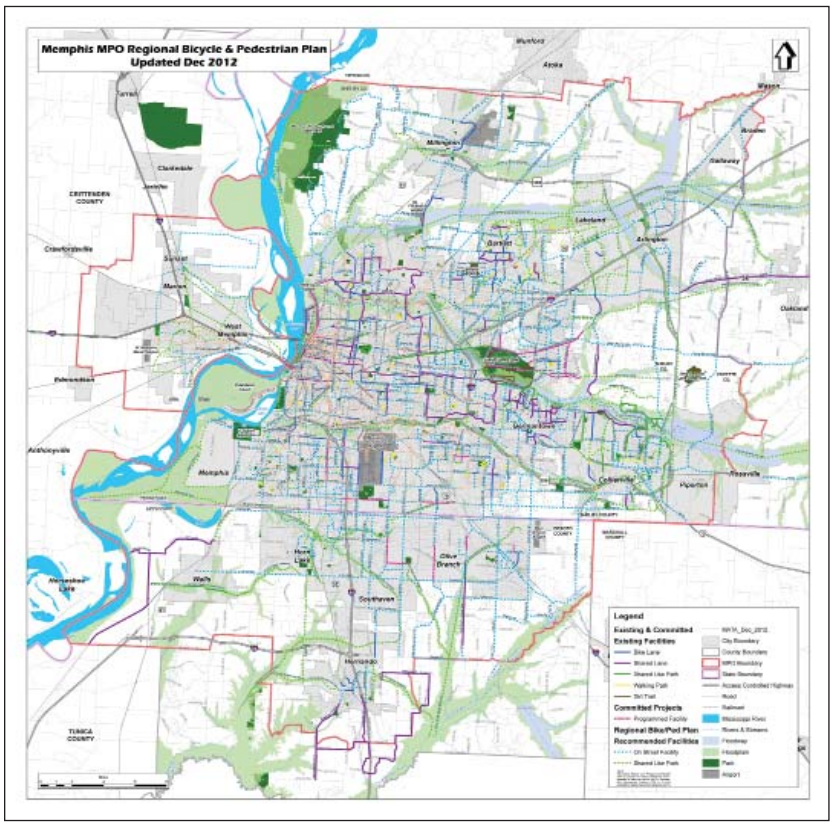
The City of Millington Greenway Plan directly address the goals of the Mid-South Regional Greenprint and Sustainability Plan. While Millington has 7 parks located through the City, each park operates essentially as a greenspace island serving only the immediate neighborhood. The City realizes the opportunity to connect these facilities into an integrated system of parks, greenways, open spaces, and trails that will provide greater exposure of the open space options available to the citizens. Designating corridors as greenways will enhance the image of these spaces and transform them into a valuable community asset. A Greenway System will be available to all the citizens, serving as a conduit to connect people from neighborhoods and communities throughout the City. Like many other communities within the region, Millington wants to offer opportunities for healthy choices, including providing transportation and recreation choices that promote a healthy, walkable, bikeable community. A Greenway Plan will also serve as a connection to the greater metropolitan area and region, protecting and enhancing natural corridors, as well as enhancing the quality of life in our Mid-South area.

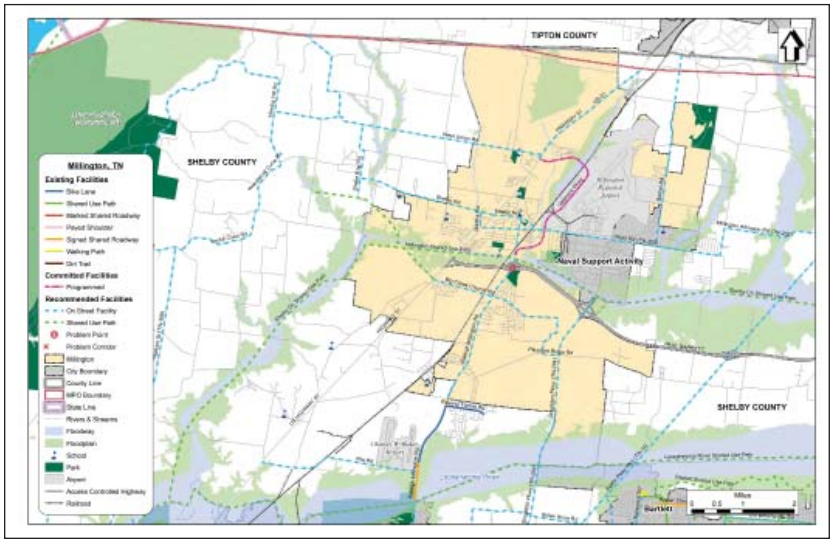
The Millington Greenway Plan incorporates specific recommendations from the Mid-South Regional Greenprint Concept Plan and Corridor Summary, including utilizing Big Creek, Royster Creek, North Fork Creek, and Casper Creek as trail corridors with an emphasis on a connections within the City. The Plan also includes Singleton Parkway and the Locke-Cuba Roads as key on-street connectors.



Memphis MPO Regional Bicycle & Pedestrian Plan

The Memphis MPO's Regional Bicycle and Pedestrian Plan is intended to identify the opportunities for enhancing bicycle and pedestrian travel within the Memphis MPO region. The program, facility, and policy recommendations contained in this plan are intended as guides for taking advantage of these opportunities. The Memphis MPO Regional Bicycle and Pedestrian Plan serves as the bicycle and pedestrian component of the MPO's Long Range Transportation Plan (LRTP).





The study area of the Memphis MPO consists of all of Shelby County, Tennessee, the northern ten miles of DeSoto County, Mississippi including the City of Hernando, and the western four miles of Fayette County, Tennessee. The Regional Bicycle and Pedestrian Plan of the Memphis MPO was adopted by the Transportation Policy Board on December 15, 2011.

Chapter 4 of the Regional Bicycle and Pedestrian Plan includes specific recommendations for Millington, many of which have been incorporated into the Millington Greenway Plan.

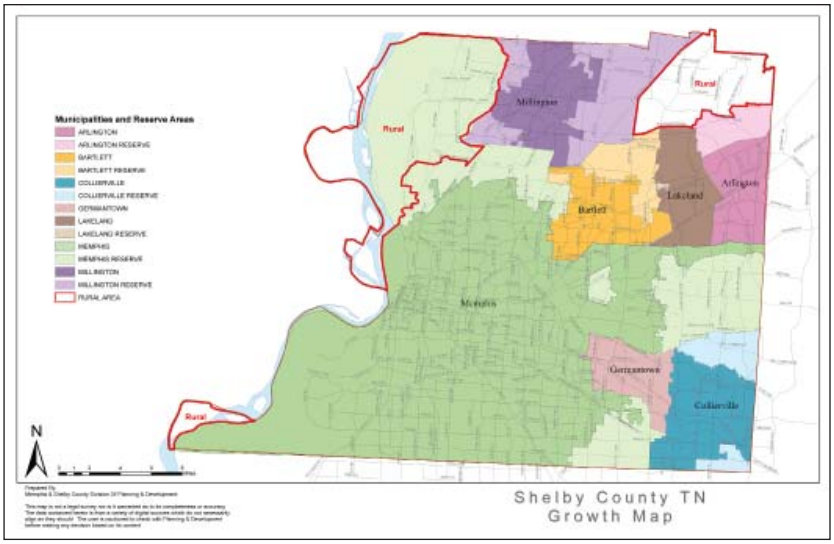
Some of the recommendations include:

- Create and fully implement a local bicycle and pedestrian plan.
- Increase the number of arterial streets that have accomodations for cyclists and pedestrians.
- Incorporate on-street facilities onto Singleton Parkway, Raleigh-Millington Rd., Big Creek Church Rd., Navy Rd., Shelby Rd., and West Union Rd.
- Utilize Big Creek as a Shared Use Path that can be used as a connection to Memphis and Shelby County.

Shelby County Growth Plan Recommendations

The Shelby County Growth Plan is intended to provide wise management of growth to ensure that Shelby County will continue to be an attractive place to live in future years.

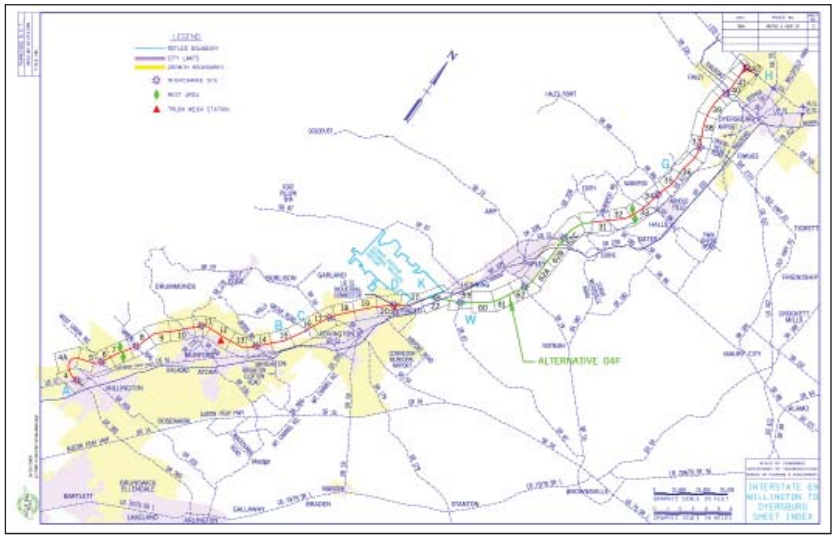
A list of Issues that need to be addressed over the next several years is included in the Growth Plan recommendations, including actively continuing a program to acquire floodway and floodplain lands to set aside as greenways. (page 15)

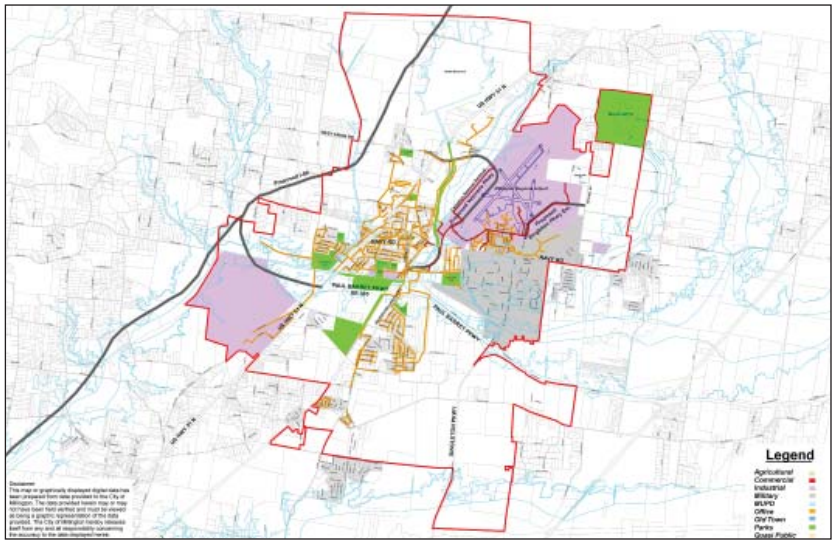


TDOT I-69 Project, Section 8 Plan

Corridor 18 was designated by Congress as a High Priority Corridor of National Significance in the ISTEA. It also has been described as a "North American trade route," "international trade route," and a "NAFTA corridor." Congress also has passed legislation that designates the extension of Corridor 18 from Indianapolis to the Lower Rio Grande Valley as I-69.

Section 8 begins at State Route 385 (Paul Barrett Parkway) in Shelby County and extends north to the I-155/US-412/US-51 interchange in Dyer County. The project has two main alternative corridors. Corridor R (Red) extends from the State Route 385 (Paul Barrett Parkway) to the west of Millington, Covington, Ripley and Dyersburg and west of US 51 (SR 3) to I-155 in Dyersburg. Corridor G (Green) extends to the east of US 51 (SR 3) from State Route 385 (Paul Barrett Parkway) to the I-155/US-412/US-51 interchange in Dyersburg. Variations of these corridors with crossovers are being studied.



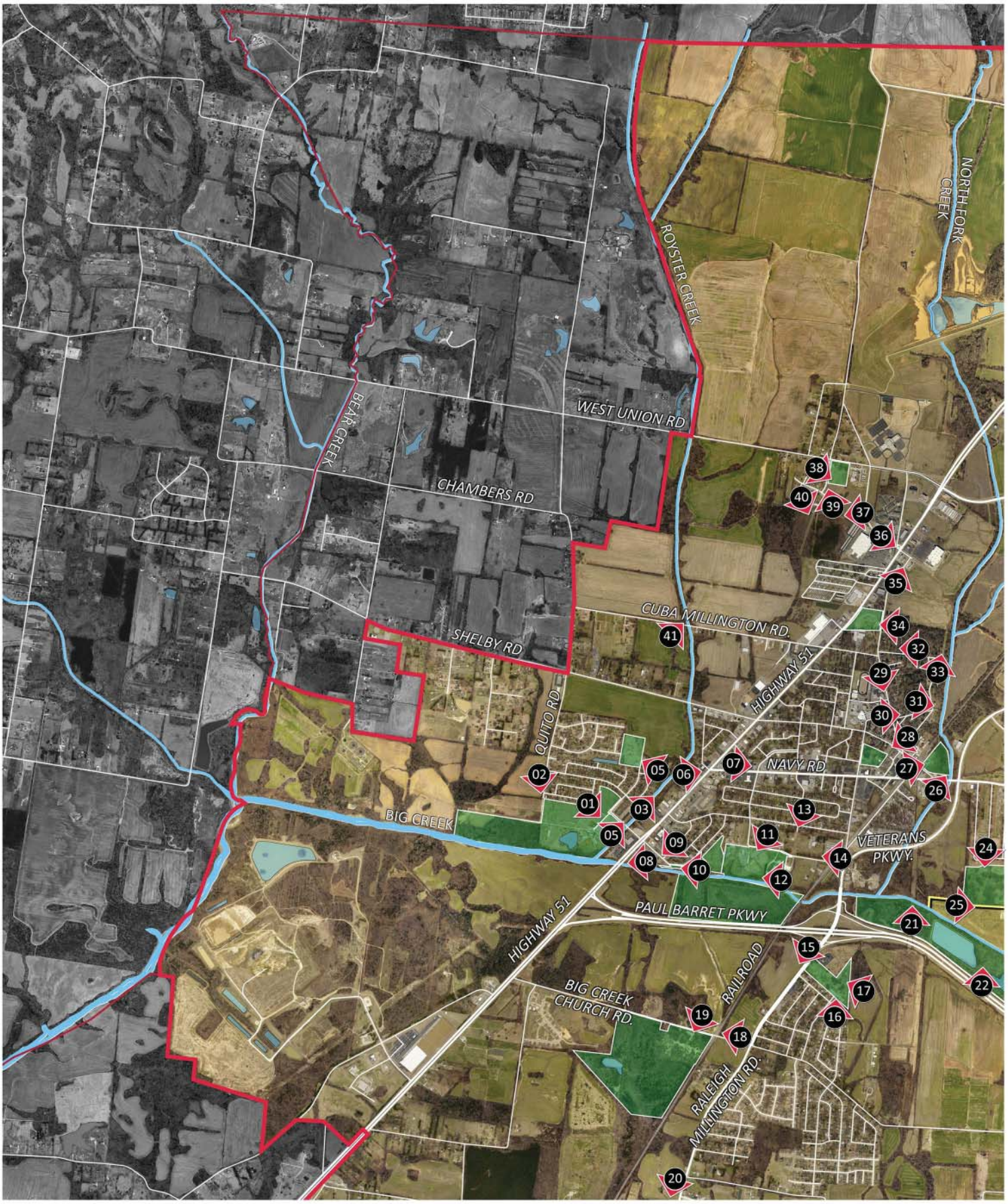


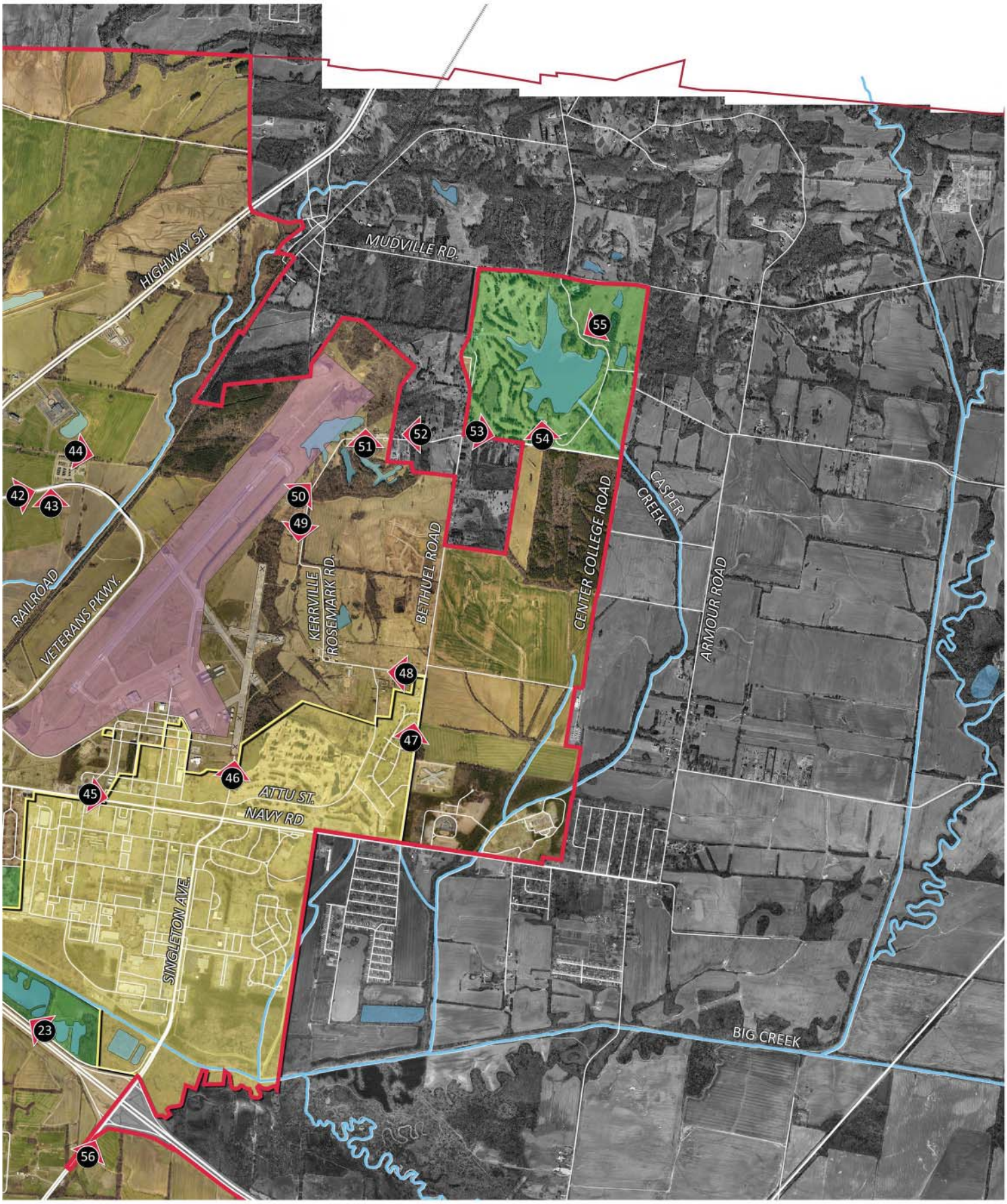
Site Evaluations

To understand the existing site conditions within Millington, the design team conducted site visits and evaluations during March, April, and May of 2014. Evaluations involved driving tours of the City and surrounding area to conduct site reviews of key corridors, as well as more detailed evaluation of opportunities and constraints in specific locations. The design team evaluated each of the main stream corridors: Big Creek, Royster Creek, North Fork Creek, Casper Creek, Bear Creek, and Jakes Creek. The team also completed a review of potential trail corridors that are recommended in the Mid-South Regional Greenprint and Sustainability Plan.

During site evaluations, many constraints were found thoughout sections of the greenway. The Greenway Master Plan is intended to illustrate the 'ideal' connection route between destination, regardless of these limitations. During actual implementation of the plan, these constraints wil need to be addressed or it may be necessary to consider alternate routes. Many of these routes are also located in floodplains, floodways, and/or wetlands, which will potentially require compliance with environmental regulations.

Initial site findings were shared with selected personnel from the City of Millington. The local knowledge of the staff and Greenway Advisory Board allowed the design team to realize unexpected opportunities in numerous areas that would not have been considered otherwise. The design team was also made aware of specific areas that would need to be circumnavigated or avoided. Further evaluation utilized aerial photography, site photos, and detailed notes to identify potential trail corridors.


ROYSTER CREEK
NORTH FORK CREEK
WEST UNION RD
BEAR CREEK
CHAMBERS RD
CUBA MILLINGTON RD.
SHELBY RD
HIGHWAY 51
QUITO RD.
NAVY RD
BIG CREEK
VETERANS PKWY.
PAUL BARRET PKWY
HIGHWAY 51
RAILROAD
BIG CREEK CHURCH RD.
RALEIGH MILLINGTON RD.
01
02
03
05
05
06
07
08
09
10
11
12
13
14
15
16
17
18
19
20
21
22
24
25
26
27
28
29
30
31
32
33
34
35
36
37
38
39
40
41


HIGHWAY 51
MUDVILLE RD.
RAILROAD
VETERANS PKWY.
KERRVILLE
ROSEMARK RD.
BETHUEL ROAD
CENTER COLLEGE ROAD
CASPER
CREEK
ARMOUR ROAD
ATTU ST.
NAVY RD
SINGLETON AVE.
BIG CREEK
23
42
43
44
45
46
47
48
49
50
51
52
53
54
55
56

01 - U.S.A. Stadium

One of the larger parks in the City of Millington, U.S.A. Stadium is bordered on the south by Big Creek, and on the east by Royster Creek. With an existing parking lot, ample open space, and adjacent restroom facilities, the park provides the perfect location to serve as a western trailhead that connects east and north to the Millington Greenway, as well as provide a southern trail connection along Big Creek to trails from Memphis.

02 - Quito Road

Quito Road currently ends at U.S.A. Stadium Park near the Rodeo Arena. A gravel access drive leads into the park. This drive could serve as a location for a trailhead and trail connection for the adjacent residential neighborhood to the greenway along Big Creek.

03 - Royster Creek

Royster Creek has the potential to serve as a greenway corridor connecting the west and northwest portions of Millington to Big Creek. The creek corridor runs through residential and agricultural areas, and is wooded for most of its length. The banks of the creek are steeply sloped and eroded, and would not be suitable for a trail. The creek itself has no easement, so property lines run to the center of the creek. Access easements would need to be procured to locate a trail on either side of the creek, and a pedestrian bridge crossing would probably be necessary at some some point.

04 - Lion's Park

Lion's Park is located west of Royster Creek and has an existing asphalt trail loop. An access easement through the adjacent agriculural property could provide a connection to Royster Creek and make the park a valuable connection point for the greenway system. Developing this connection would also provide an access point to the greenway for the adjacent residential neighborhood.

05 - Babe Howard Blvd. at Royster Creek

A green space is located on the western bank of Royster Creek, between the creek and the existing apartment complex. This space could be utilized as part of the greenway corridor. The trail along Royster Creek would need to cross Babe Howard Blvd. with an on-grade crossing, including adequate signage and markings, and this green space provides the ideal location.

06 - Navy Road Intersection

Since Navy Road is one of the main thoroughfares for Millington, it should be included in the greenway plan. A number of constraints would need to be resolved. A pedestrian bridge would need to be provided over Royster Creek at an appropriate location along Martha Street or Salley Road. The trail would then need to cross Highway 51, one of the busiest intersections in Millington.The intersection currently includes traffic lights and crosswalk striping, but the visibility would need to be increased, along with signage, to create as safe and comfortable a crossing as possible.

07 - Navy Road

Over the past few years, Transportation Enhancement grants have been used to improve portions of the Navy Road streetscape, including repairing sidewalks, installing pavers, enhancing crosswalks, adding site furniture, and planting street trees. These improvements should be continued along Navy Road, and this corridor can serve as the central urban portion of the greenway plan.

08 - Big Creek at Highway 51

A crossing will need to be provided along the greenway corridor where Big Creek crosses Highway 51. An assessment will need to be conducted to see if a crossing under the bridge is viable, or if an at-grade crossing will need to be provided. If an at-grade crossing is required, the trail may need to cross at the Babe Howard Blvd./Highway 51 intersection.

09 - Babe Howard Blvd. Trailhead

An undeveloped lot owned by the Millington Telephone company is located on the south side of Babe Howard Blvd. adjacent to Big Creek. This lot provides an ideal location to construct a trailhead to connect to the greenway corridor along Big Creek.

10 - Big Creek Levee

The trail along Big Creek will serve as the main east-west corridor for the Millington Greenway. The banks of Big Creek are extremely steep and eroded in most locations, making them unsuitable for trail construction. Ideally, the City should seek to gain access easements along the creek where a trail can be located. If proper clearances can be granted, the levee on the north side of the creek would be an ideal location to construct a greenway.

11 - Biloxi Park

Biloxi Park is located on the north side of Big Creek. The existing parking lot and restroom building provide the necessary elements to create a trailhead. This location could serve as a main starting point for the trail along Big Creek, and could also serve as an access to the residential area located north of the park, as well as to the adjacent school.

12 - Big Creek Levee

The levee along Big Creek continues eastward towards Raleigh Millington Road. Wherever possible, the levee should be utilized as a trail location.

13 - Rockford Road

Sidewalks along Rockford Road end at a gated parking area in Miles Park. These sidewalks could be extended through Miles Park to the trailhead at Biloxi Park, serving as a greenway connection for the surrounding residential neighborhood.

14 - Biloxi Street

A trail along Biloxi Street could connect to the existing sidewalks along Raleigh Millington Road. The overhead electric easement on the north side of Biloxi Street could be utilized as part of the corridor.

15 - Raleigh Millington Road

Raleigh Millington Road can serve as a main trail corridor for residential areas in the southern portion of Millington, as well as provide a trail connection to Memphis. Existing sidewalks are located on the east and west sides of the road. To make walking more comfortable, certain portions of the sidewalk may be moved away from the road to the back of the R.O.W. and widened to allow people to pass each other. Millington could also require future development of these properties to include a better sidewalk/trail system.

16 - Aycock Park

Aycock Park is located on the east side of Raleigh Millington Road in a residential area. The park includes a parking lot, shelter, and an existing asphalt trail. Developing this location as a trailhead would provide an access point to the greenway for the adjacent residential neighborhood.

17 - Aycock Park Trail

Even though Aycock Park borders Raleigh Millington Road, currently there is no trail access to the park from the existing sidewalks along the road. A bridge provides access across the existing creek that runs through the property. The existing asphalt trail could be extended across this bridge and run along the trees on the northern edge of the park to provide access to the walks along Raleigh Millington Road.

18 - Big Creek Church Road

Big Creek Church Road provides access from Raleigh Millington Road to the future park property. There are no sidewalks located along this road and the R.O.W. includes ditches on either side. An easement would needed to allow a trail, possibly under the existing overhead electric line. Big Creek Church Road also includes a railroad crossing that would need to be handled appropriately to accommodate a trail crossing.

19 - Big Creek Church Road Park

The City of Millington owns a piece of property along Big Creek Church Road that is designated to be developed as a future park. Approximately 118 acres, the site could be developed with many features, including paved and primitive trails. The park could serve as the main trailhead for the southern portion of the City.

20 - Raleigh Millington Road

Sections of Raleigh Millington Road leading to Memphis are currently signed and striped as bicycle lanes. Where possible, these signs and striping should be continued.

21 - Transmission Line Easement

A transmission line easement runs north-to-south on the east side of Raleigh Millington Road, north of Paul Barret Parkway. The easement presents an opportunity to serve as a connection between trails along Big Creek and North Fork Creek.

22 - Wetlands

The City owns approximately 165 acres of wetland/ greenbelt property located between Paul Barret Parkway and Big Creek, east of Raleigh Millington Road, accessible by Jones Boyd Road. The property is in the floodplain, but offers a great opportunity to be utilized as a nature park, incorporating trails, boardwalks and educational areas.

23 - Jones Boyd Road

Jones Boyd Road could be used to access the wetland area. It consists of a 2-lane asphalt road with side ditches. Due to its low volume of traffic, the road could be striped for shared use.

24 - Centennial Park

Centennial Park is a 35-acre, largely undeveloped City park property. The site does include some ballfields, a parking lot, and a shelter. It could easily be utilized as a trailhead for this portion of the greenway. Trails could be developed within the park, as well as a trail connection to the adjacent YMCA.

25 - Overhead Power Easement

An overhead electric easement is located on the south side of Centennial Park. The easement could be utilized as a connection from Centennial Park to the transmission line easement, and then as a connection to Big Creek or North Fork Creek.

26 - North Fork Creek

North Fork Creek is very similar to Royster Creek. It has the potential to serve as a north-south greenway corridor connecting the central portion of Millington to Big Creek. The creek corridor runs through residential and agricultural areas, and is wooded for most of its length. The banks of the creek are steeply sloped and eroded, and would not be suitable for a trail. Access easements would need to be procured to locate a trail on either side of the creek, and a pedestrian bridge crossing would probably be necessary at some some point.

27 - Farmers Market

Located on Easley Avenue in Old Town, the Farmer's Market includes a gravel parking area and pavilion. Its central location would be a great trailhead. Existing sidewalks in the downtown area provide access to the Market, and it could serve as a connection point to trails along North Fork Creek.

28 - Oak Park

Oak Park and Baker Community Center serve as centrally located parks within downtown Millington, and are important destinations on the greenway plan. Currently, the park is only accessible from Church Street. A piece of city-owner property is located north of the park, adjacent to Easley Avenue, which houses an underground reservoir. A trail corridor could be located on this property, connecting to the walks along Easley Avenue which would be part of the trail corridor connecting to the Farmer's market.

29 - Wilkinsville Road

Wilkinsville Road can serve as an important urban corridor, providing connections between residential areas and the High School, Middle School, Civic Center, and Jameson Park. Existing sidewalks are located along both sides of Wilkinsville Road, but where possible (such as on city-owned properties), the walks could be widened to accommodate large groups and provide a more comfortable traveling experience.

30 - School Avenue

School Avenue could be developed as a main corridor to connect sidewalks along Wilkinsville Road to trails along North Fork Creek. The existing sidewalk is narrow and needs repair in many places. The City may need to widen the walks, possibly by narrowing the road and using the additional width to create a greenway corridor.

31 - School Avenue & B Street

Currently School Avenue ends at B Street, and an existing residential property separates North Fork Creek from B Street. The City would need to gain an access easement across the property to provide a connection to North Fork Creek trails.

32 - North Avenue

Similar to School Avenue, North Avenue could be developed as a main corridor to connect sidewalks along Wilkinsville Road to trails along North Fork Creek. The existing sidewalk is narrow and needs repair in many places. The City may need to widen the walks, possibly by narrowing the road and using the additional width to create a greenway corridor.

33 - North Avenue Sewer Easement

A sewer easement is located on the west side of North Fork Creek at North Avenue. With the eroded condition of the banks along the creek, the sewer easement could be utilized as the trail corridor leading north from North Avenue.

34 - Joyner Park

Joyner Park is located along the northern portion of Wilkinsville Road, adjacent to Millington Middle School. The park includes ballfields, a gravel parking area, and shelter. Its location, along with the presence of existing facilities, would allow it to be utilized as a trailhead for this portion of the greenway.

35 - Wilkinsville Road

Sidewalks are located along the northern portion of Wilkinsville Road where it intersects with Glencoe Road. These sidewalks are relatively new and fairly wide so that they would not need any improvements.

36 - Wilkinsville Road east of 51

Wilkinsville Road picks up again on the east side of Highway 51. To continue the greenway towards E.A. Harrold School, the trail would need to cross Highway 51, another extremely busy intersection in Millington.The intersection currently includes traffic lights and crosswalk striping, but the visibility would need to be increased, along with signage, to create as safe and comfortable a crossing as possible.

37 - Wilkinsville Road Sewer Easement

A graded and cleared sewer easement is located north of Walmart on the west side of Wilkinsville Road. This easement could easily be utilized as an eas-west trail corridor connecting to trails that lead to Royster Creek.

38 - E.A. Harrold Park

The location of E.A. Harrold Park in the northern portion of Millington make it a great site to create a trailhead. A short trail is located on the southern edge of the park that provides access from Green Hill Road to the adjacent school. More trails could be built within the park, and a connection could be created to the adjacent residential area. The trail could also be extended east to connect to the park and school to the trail corridor along Wilkinsville Road.

39 - End Road

Sidewalks along End Road provide a connection from the sewer easement to Green Hill Road, leading to E.A. Harrold Park. The City would need to install sidewalks on Green Hill Road.

40 - Utility Easement

The City cleared a drainage easement leading from the E.A. Harrold Park area to mobile home park on Highway 51. This easement presents a great opportunity to be used as part of the north-south greenway corridor, connecting a trailhead at E.A. Harrold Park to trails at Cuba Millington Road.

41 - Cuba Millington Road

To continue the trail corridor west to connect to the corridor along Royster Creek, a connection would need to be extended along Cuba Millington Road. The road is 2 lane, with side ditches, small shoulders, and narrow bridge crossings. This portion of the corridor would need more study to find the best location for a trail.

42 - Veteran's Parkway

Veteran's Parkway serves as a main traffic connector through Millington. Runners were observed using the sidewalks are located along the road. The road provides a bridge over North Fork Creek and the railroad, and serves as a continuous connection between the southern and northern areas of Millington. Even though the sidewalk located immediately next to the road, and the lack of street trees is not the most comfortable walking experience, it should be utilized as a integral part of the greenway. The road is also striped to allow shared bicycle use.

43 - Veteran's Parkway Access Road

An unpaved access road is located on the west side of the Azalea Terrace subdivision, connecting Veteran's Parkway to Shipp Road. This access road could be utilized to connect the corridor along Veteran's Parkway to trails that lead out to the northeastern portions of Millington, including Navy Lake and Orgill Park.

44 - Shipp Road

Shipp Road currently ends at agricultural fields. The trail could be extended along this treeline, where it could connect to the existing tunnel that goes under the railroad tracks. On the east side of the tracks, the trail could carry around the airport to Navy Lake.

45 - Navy Road

Navy Road can serve as the central urban portion of the greenway plan. The sidewalks continue along the road east of Veteran's Parkway, but these sidewalks are relatively narrow and have not been improved.

46 - Singleton Avenue

One of the major obstacles to creating continuous connections throughout Millington is getting around the Navy Base. Singleton Avenue provides an opportunity to go around the western boundary of Glen Eagle Golf Course. Singleton extends north of Navy Road, ending at the former runway. A grass strip between the road and the golf course fence provides room for a trail. Further along the road, a sewer easement runs to the northeast, that can be used as the trail corridor providing access to Navy Lake.

47 - Bethuel Road

The southern portion of Bethuel Road could serve as part of a north-south greenway corridor, specifically connecting Millington Elementary School to trails along Kerrville Rosemark Road that lead to Navy Lake. Sidewalks are found along certain portions of Bethuel Road, but they are relatively narrow and in need of repair.

48 - Kerrville Rosemark Road

Kerrville Rosemark Road could serve as a corridor to connect sidewalks along Bethuel Road to trails that lead to Navy Lake. The road is extremely narrow, so additional asphalt would need to be added or a separate trail would need to be buil. This portion of the road runs through horse pastures, and there appears to be plenty of open space between the edge of the road and the fencing to locate a trail. Additional fencing may be needed to keep users from attempting to approach the pasture areas.

49 - Kerrville Rosemark Road

As Kerrville Rosemark Road continues north, there appears to be ample greenspace located along the road to locate a trail. There are also access trails in the wooded area west of the road that may be utilized as corridors.

50 - Kerrville Rosemark Road at Navy Lake

The narrow width of the road continues as it travels adjacent to Navy Lake. Properties on both sides of the road are owned by the Industrial Development Board. If possible, an access easement could be used to provide a trail corridor in this area to connect Navy Lake to Orgill Park.

51 - Navy Lake Trails

An maintenance access path is located on the northeast end of Navy Lake. This path could be utilized as a corridor, connecting Navy Lake and Kerrville Rosemark corridor, around the north side of the lake and the north end of the airport to connect to the trails coming from Shipp Road. Access easements would need to granted and the layout would need to be coordinated with the IDB and the airport, but this could be a valuable connection that provides a cross-country connection between northern portions of Millington.

52 - Kerrville Rosemark Road

The trail corridor should continue along the northern portion of Kerrville Rosemark Road to connect Navy Lake to Orgill Park. This portion of Kerrville Rosemark Road is 2-lane asphalt with no shoulder. An overhead electric line runs along the northern side of the road. Access easements would need to be acquired along the road across adjacent properties.

53 - Kerrville Rosemark Road at Orgill Park

Kerrville Rosemark Road continues across Bethuel Road to Orgill Park. There appears to be room on the north side of the road along the Orgill Park frontage to locate a trail corridor to connect to the park entrance.

54 - Orgill Park

Orgill Park contains multiple asphalt parking lots, as well as a restroom building and picnic shelters. These existing facilities present the opportunity to utilize as a northern trailhead for this portion of the greenway.

54 - Orgill Park

Orgill Park contains a 68-acre lake, golf course, disc golf course, fishing piers, and open space. There is room within the park to develop a system of paved and natural trails.

55 - Singleton Parkway

Singleton Parkway provides one of the main connections to Millington from Memphis. It is a 4-lane divided asphalt road with shoulders. People have been observed riding bicycles along the road. It should be striped or signed to accommodate bicycle traffic.

CHAPTER 3: GREENWAY NETWORK PLAN

The Greenway Plan for Millington is laid out using the concept of destinations connected by corridors. Destinations include parks, schools, and recreation areas, while the corridors are created using waterways, existing sidewalks, and utility easements. For planning purposes, the Greenway Plan is divided into ten segments. The adjacent plan shows the overall plan, as well as the enlarged maps and how the network connects throughout Millington.

Methodology

The recommended greenway network was produced with many goals in mind:

- Connect gaps between existing and proposed trails.
- Develop long-distance greenway corridors connecting to other local municipalities
- Keep greenway system off-road as much as possible.
- Avoid private landowner/homeowner conflict when possible and minimize impacts.
- Utilize open spaces and common areas.
- Take advantage of land owned by the City where possible.
- Connect trip destinations, especially schools, parks, recreation areas, and neighborhoods
- Utilize and/or propose on-road sidewalk sections where necessary.

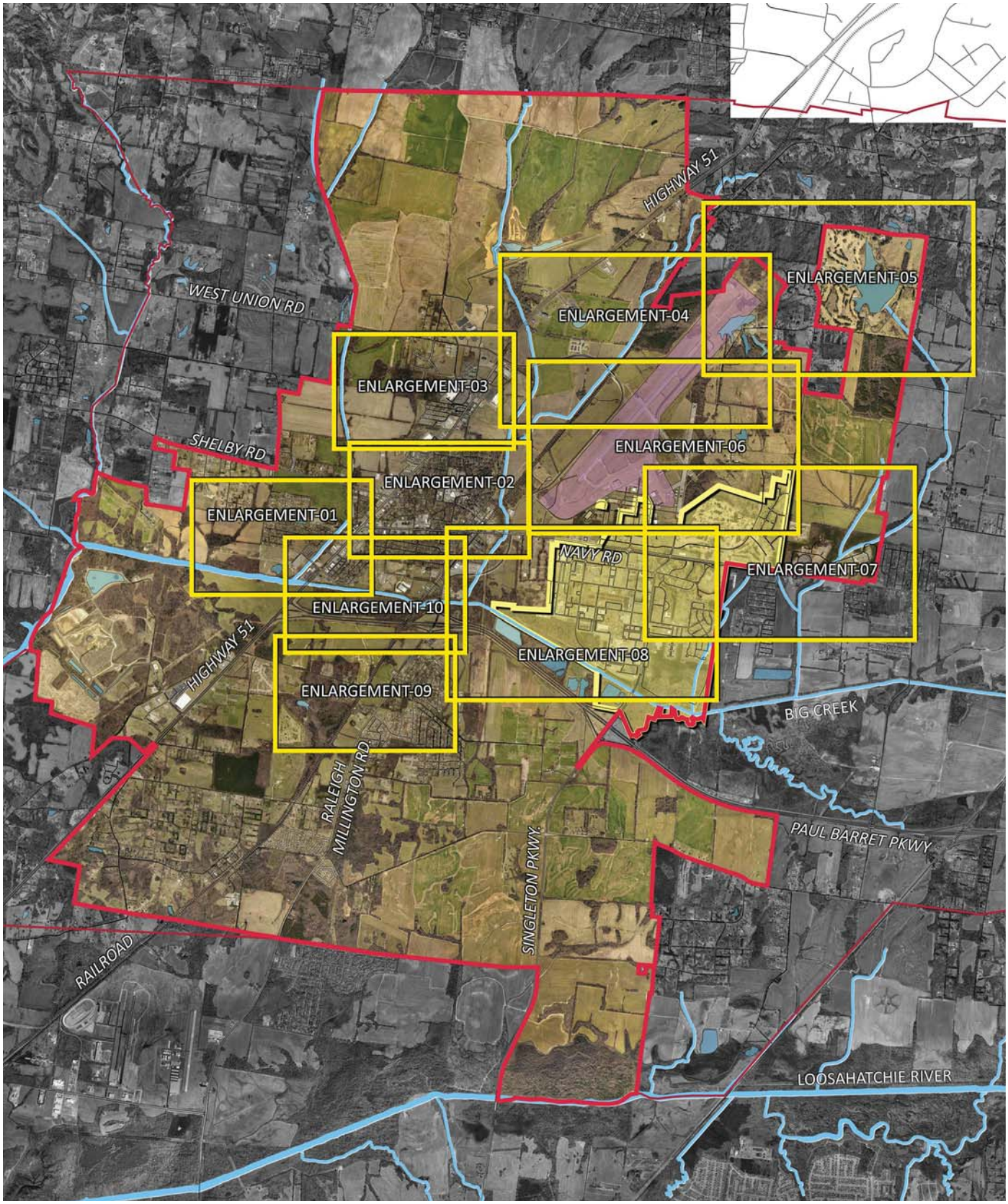
Key Factors for Greenway Network Design

To meet these goals, the following information was used to make recommendations for the greenway network.

- Analysis of Current Conditions – Inventory of existing conditions in the field along the major corridors and with the City was conducted to analyze opportunities and constraints for recommended greenway trails.
- Existing Facilities and Current Recommendations – Locations of existing facilities were identified both in the field and by City staff; current recommendations were analyzed from existing planning efforts.
- Connectivity/Gap Analysis - Gaps in existing facilities and current recommendations were identified through mapping analysis; recommendations were then made to connect those gaps.
- Key Destinations - Destinations which are likely to attract trail users were considered in network design and are identified on the maps of this section. Examples include schools, parks, municipal downtown areas, etc.
- City Staff Input - Opportunities for greenway development, including open space, easements, and new developments, were highlighted by planning and parks and recreation staff from Millington.

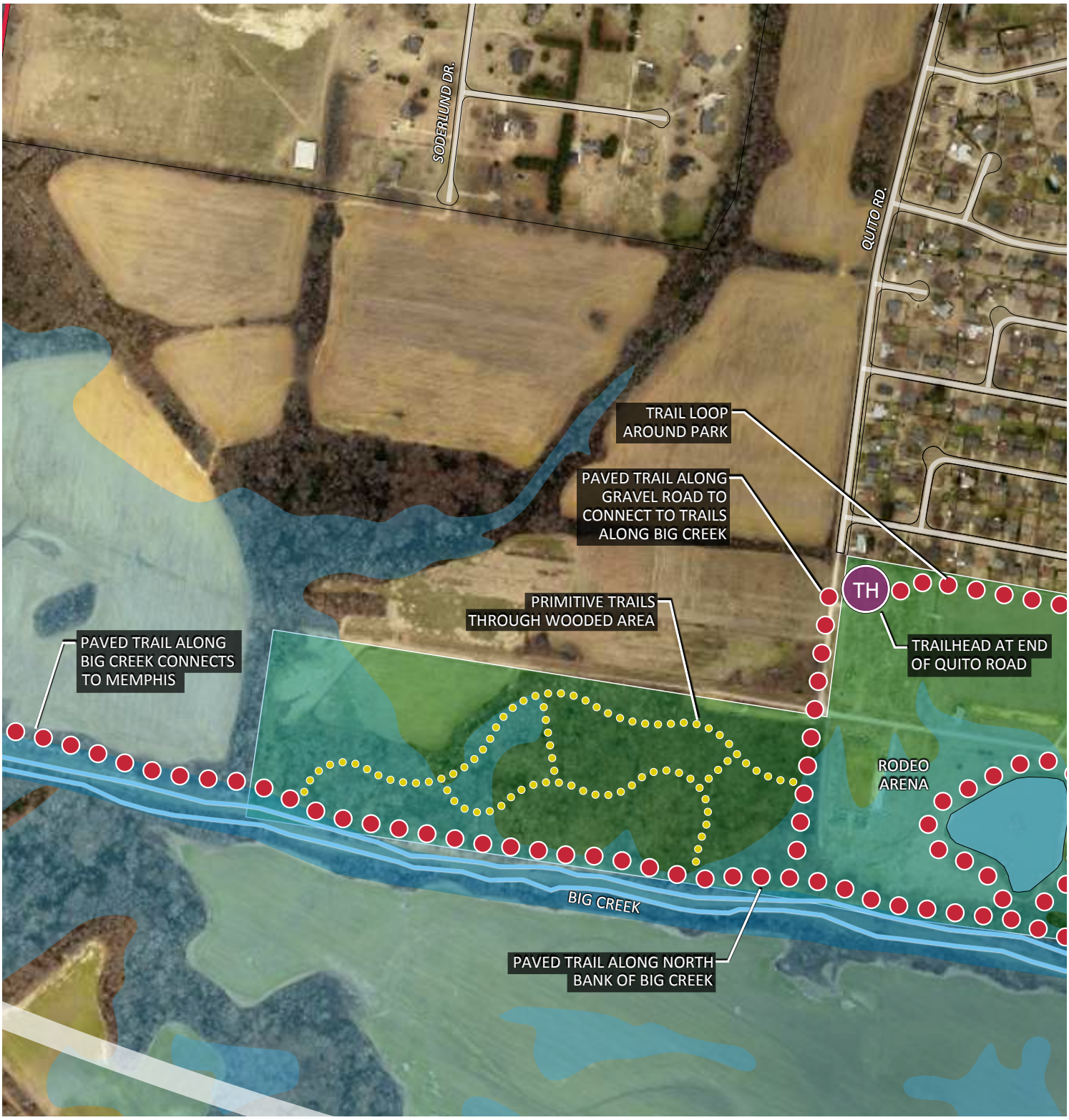
Together, these factors influenced not only the placement of greenway facilities, but also overall conceptual design of the greenway network.

OVERALL KEY MAP



LEGEND

- PARKS
- MUNICIPAL FACILITIES
- SCHOOLS
- POINTS OF INTEREST
- AIRPORT
- NAVY BASE
- FLOODWAY
- FLOODPLAIN
- MILLINGTON CITY LIMITS
- MILLINGTON ANNEXATION LIMITS
- TH PROPOSED TRAILHEAD
- PROPOSED GREENWAY TRAIL (PAVED)
- PROPOSED BRIDGE
- CROSSWALK
- PROPOSED GREENWAY TRAIL (UNPAVED)
- EX. SIDEWALK
- EX. SIDEWALK (IMPROVE)

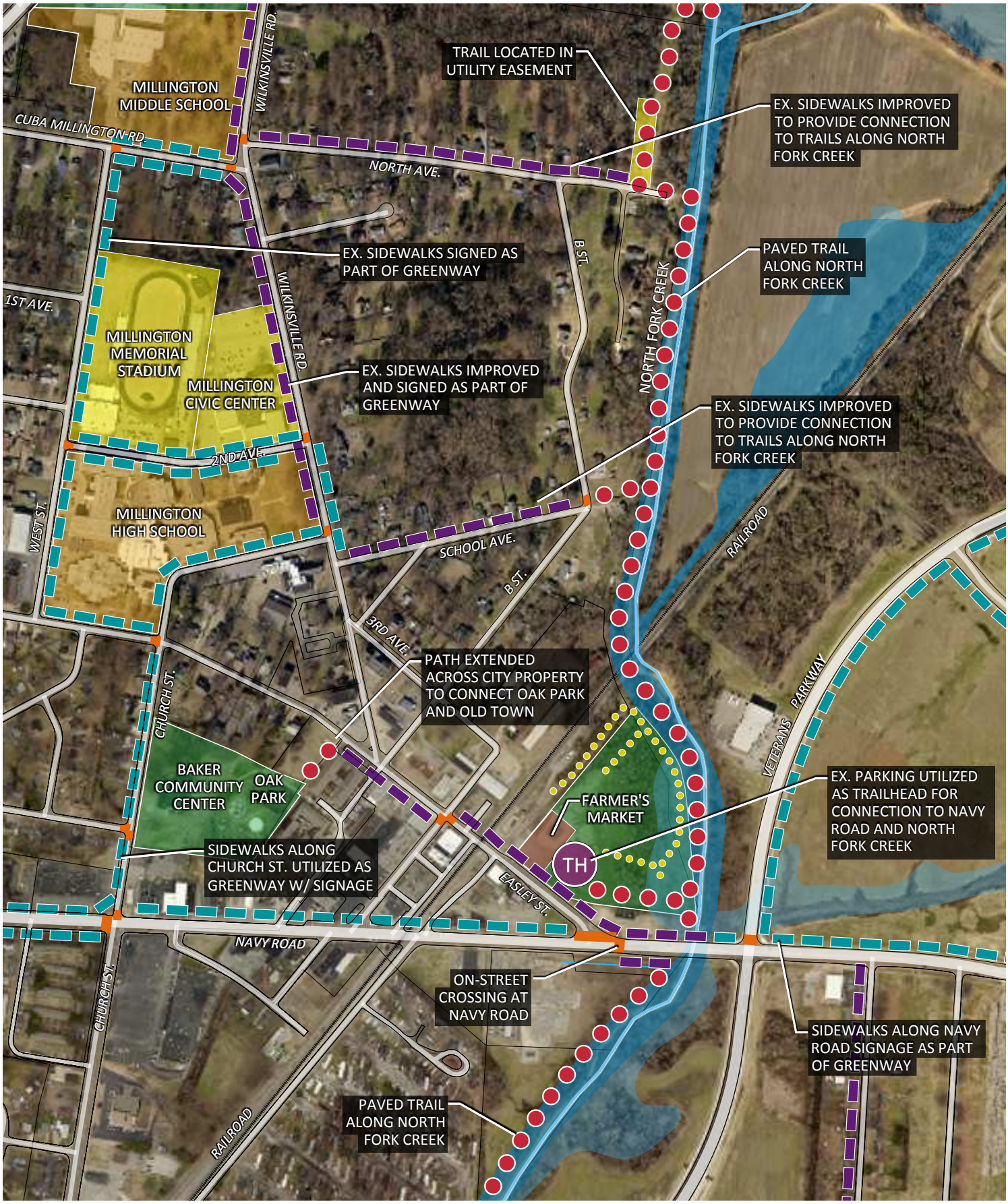


ENLARGEMENT-01

LEGEND

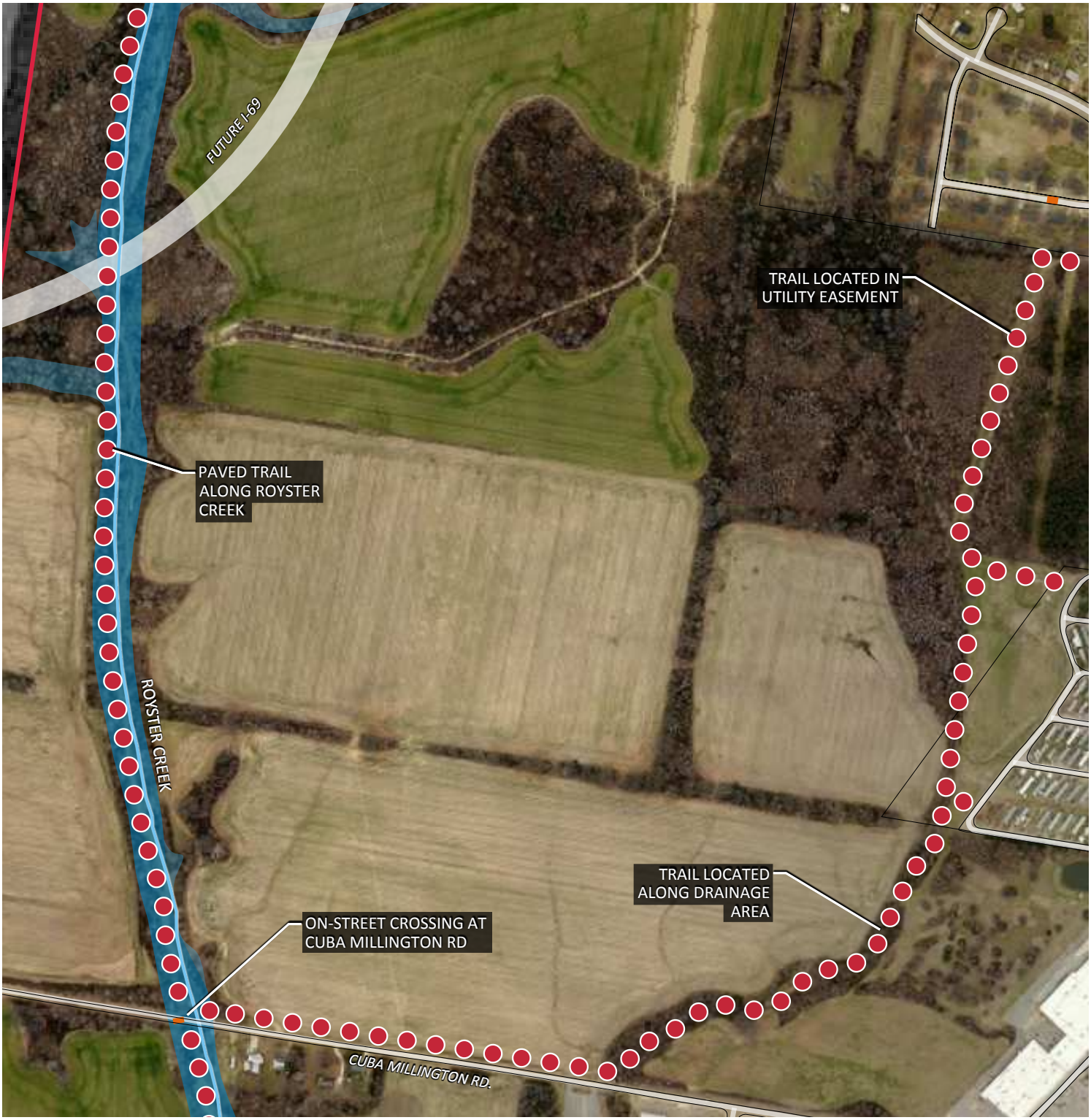
- PARKS
- SCHOOLS
- POINTS OF INTEREST
- AIRPORT
- NAVY BASE
- FLOODWAY
- FLOODPLAIN
- MILLINGTON CITY LIMITS
- MILLINGTON ANNEXATION LIMITS
- TH — PROPOSED TRAILHEAD
- PROPOSED GREENWAY TRAIL (PAVED)
- PROPOSED BRIDGE
- CROSSWALK
- PROPOSED GREENWAY TRAIL (UNPAVED)
- EX. SIDEWALK
- EX. SIDEWALK (IMPROVE)

ENLARGEMENT-02



LEGEND

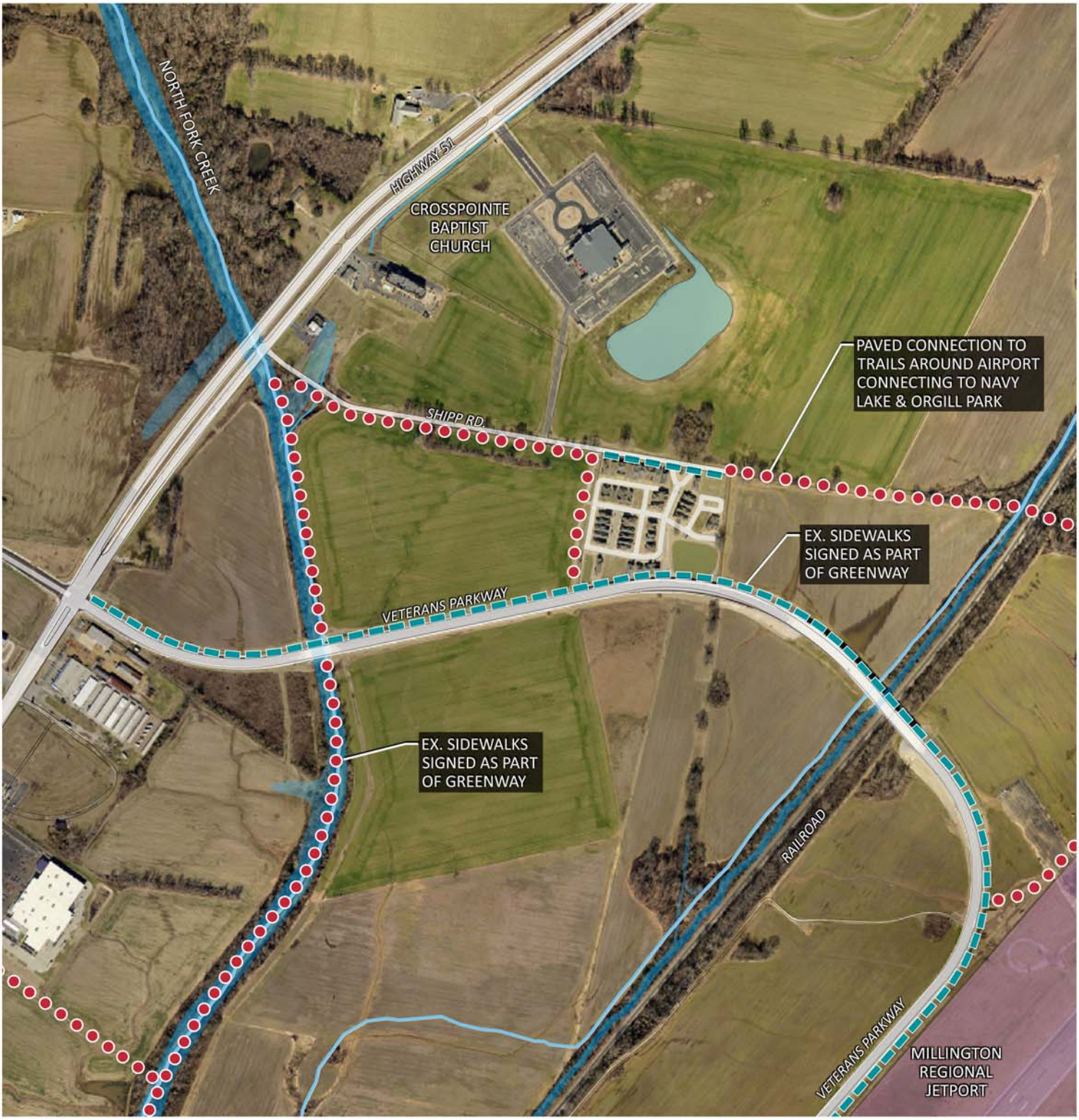
- PARKS
- MUNICIPAL FACILITIES
- SCHOOLS
- POINTS OF INTEREST
- AIRPORT
- NAVY BASE
- FLOODWAY
- FLOODPLAIN
- MILLINGTON CITY LIMITS
- MILLINGTON ANNEXATION LIMITS
- TH — PROPOSED TRAILHEAD
- PROPOSED GREENWAY TRAIL (PAVED)
- PROPOSED BRIDGE
- CROSSWALK
- PROPOSED GREENWAY TRAIL (UNPAVED)
- EX. SIDEWALK
- EX. SIDEWALK (IMPROVE)



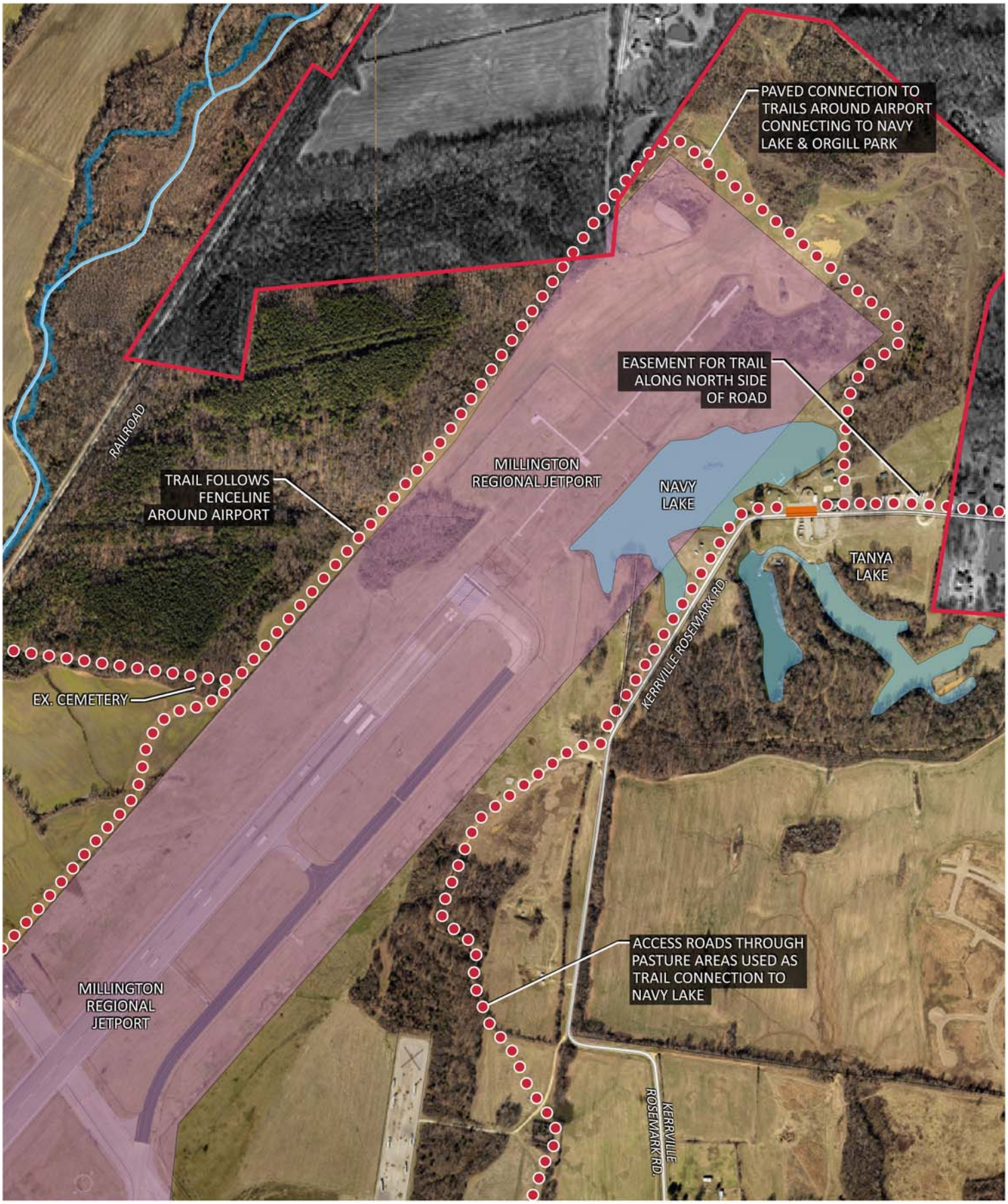
ENLARGEMENT-03

LEGEND

- PARKS
- MUNICIPAL FACILITIES
- SCHOOLS
- POINTS OF INTEREST
- AIRPORT
- NAVY BASE
- FLOODWAY
- FLOODPLAIN
- MILLINGTON CITY LIMITS
- MILLINGTON ANNEXATION LIMITS
- TH PROPOSED TRAILHEAD
- PROPOSED GREENWAY TRAIL (PAVED)
- PROPOSED BRIDGE
- CROSSWALK
- PROPOSED GREENWAY TRAIL (UNPAVED)
- EX. SIDEWALK
- EX. SIDEWALK (IMPROVE)

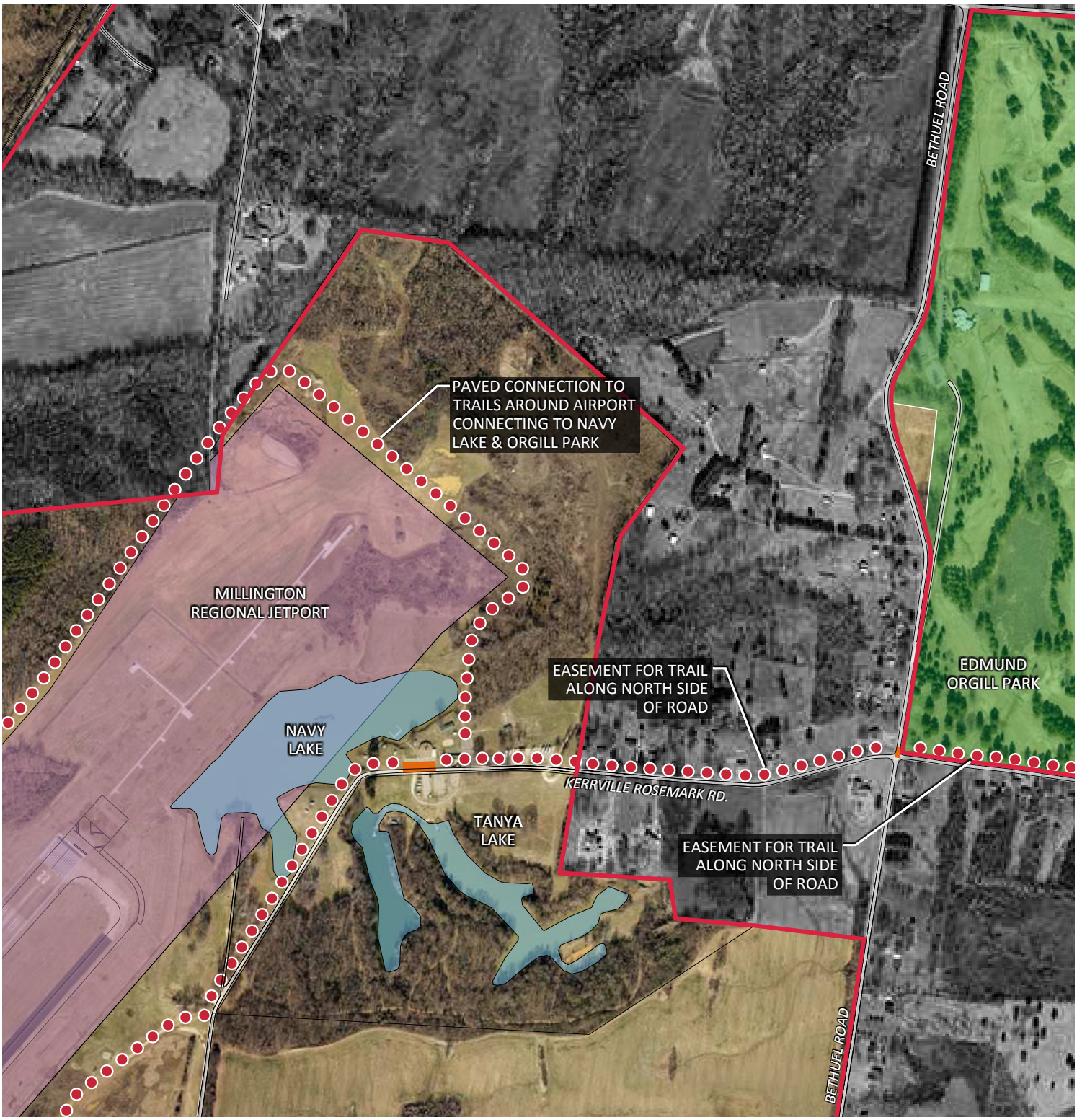


ENLARGEMENT-04

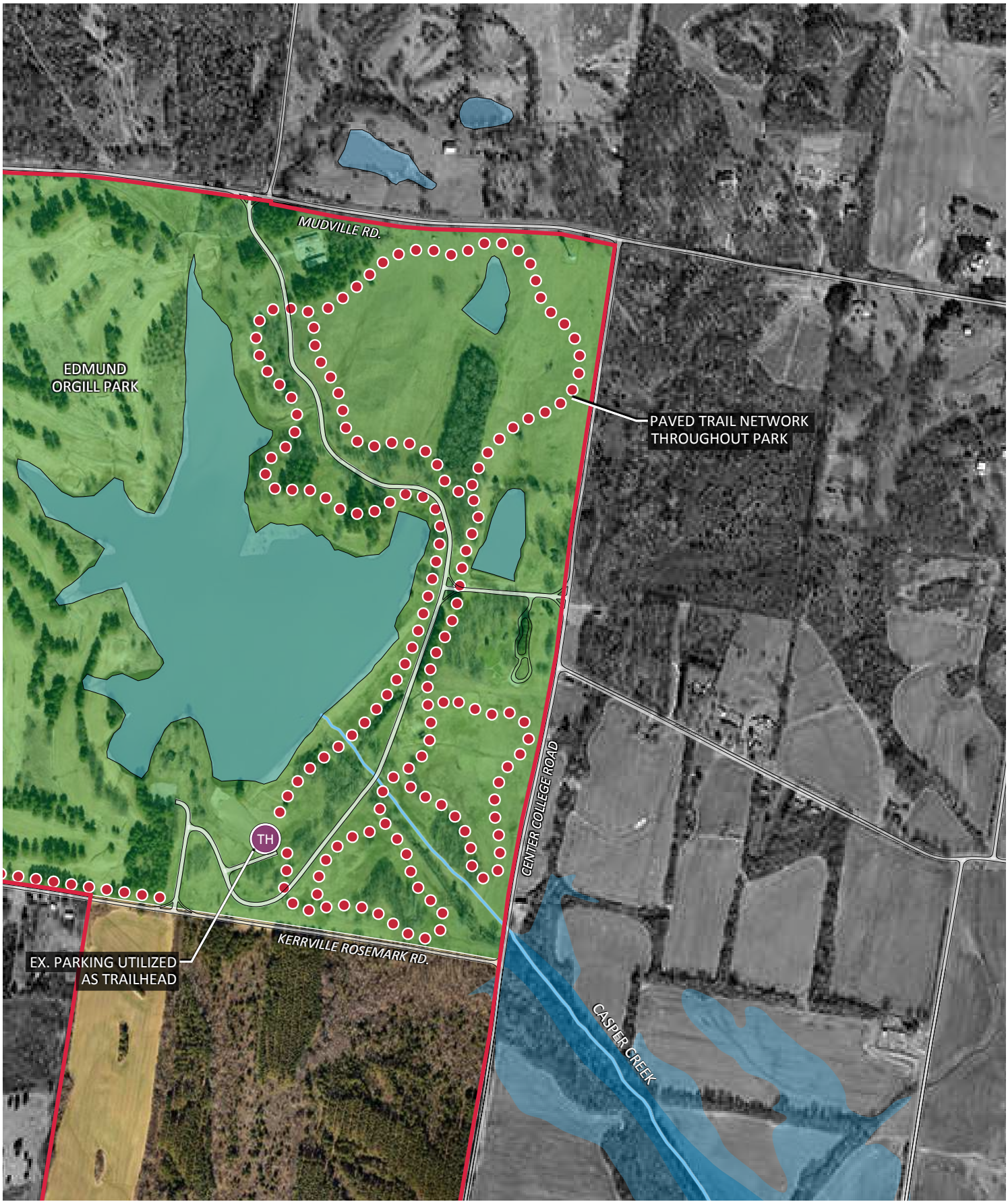


LEGEND

- PARKS
- MUNICIPAL FACILITIES
- SCHOOLS
- POINTS OF INTEREST
- AIRPORT
- NAVY BASE
- FLOODWAY
- FLOODPLAIN
- MILLINGTON CITY LIMITS
- MILLINGTON ANNEXATION LIMITS
- TH — PROPOSED TRAILHEAD
- PROPOSED GREENWAY TRAIL (PAVED)
- PROPOSED BRIDGE
- CROSSWALK
- PROPOSED GREENWAY TRAIL (UNPAVED)
- EX. SIDEWALK
- EX. SIDEWALK (IMPROVE)

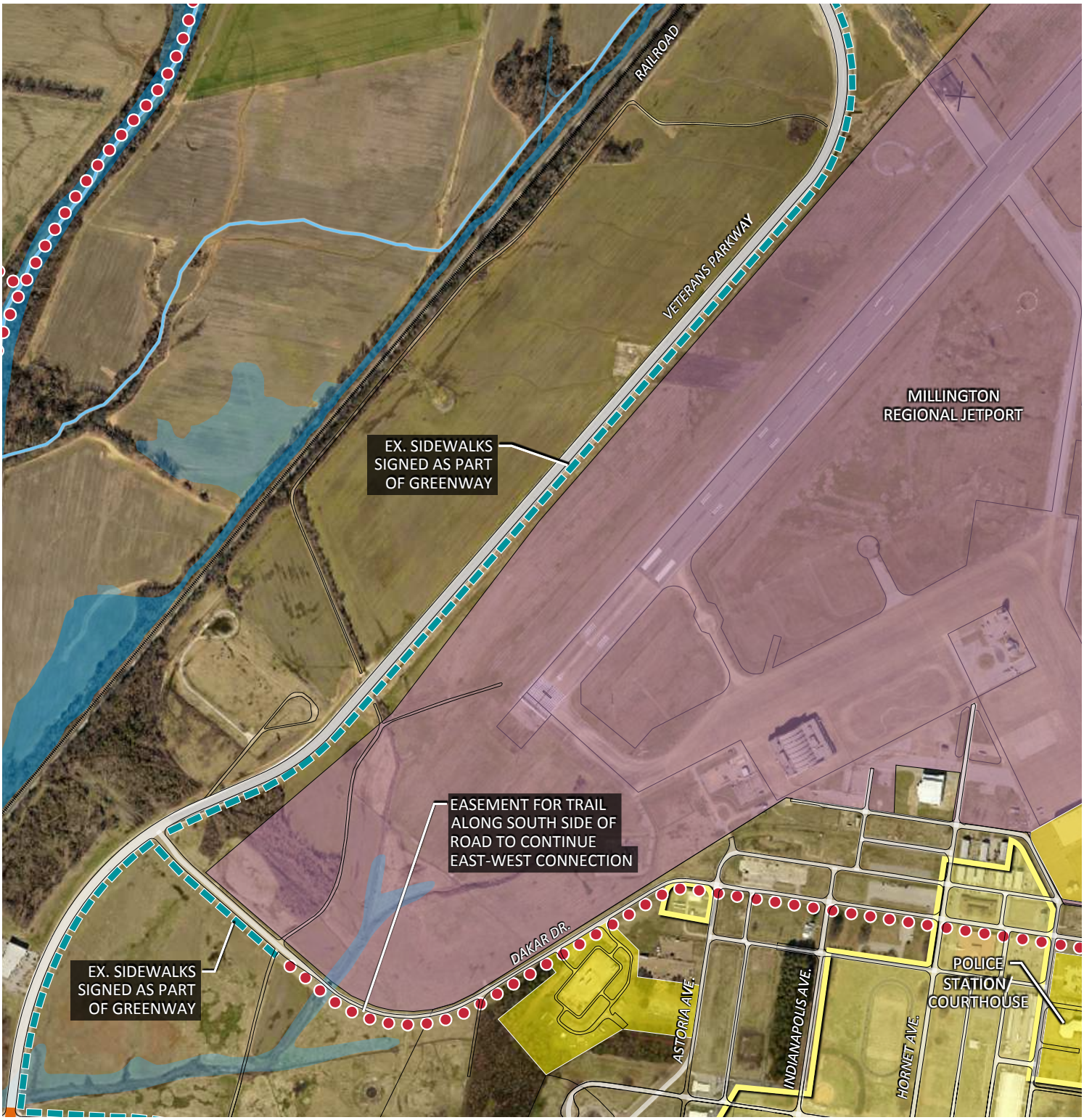


ENLARGEMENT-05

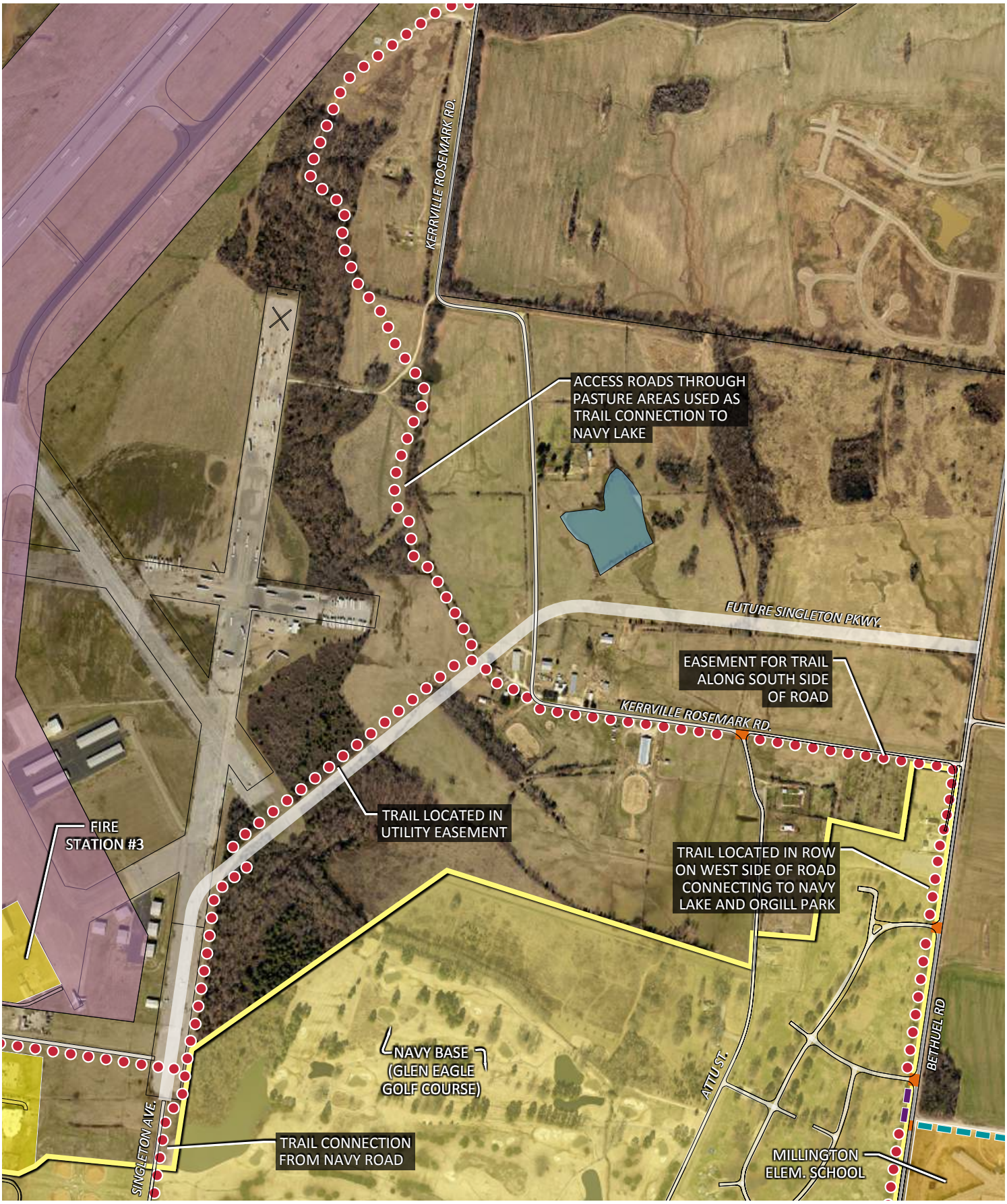


LEGEND

- PARKS
- MUNICIPAL FACILITIES
- SCHOOLS
- POINTS OF INTEREST
- AIRPORT
- NAVY BASE
- FLOODWAY
- FLOODPLAIN
- MILLINGTON CITY LIMITS
- MILLINGTON ANNEXATION LIMITS
- TH — PROPOSED TRAILHEAD
- PROPOSED GREENWAY TRAIL (PAVED)
- PROPOSED BRIDGE
- CROSSWALK
- PROPOSED GREENWAY TRAIL (UNPAVED)
- EX. SIDEWALK
- EX. SIDEWALK (IMPROVE)

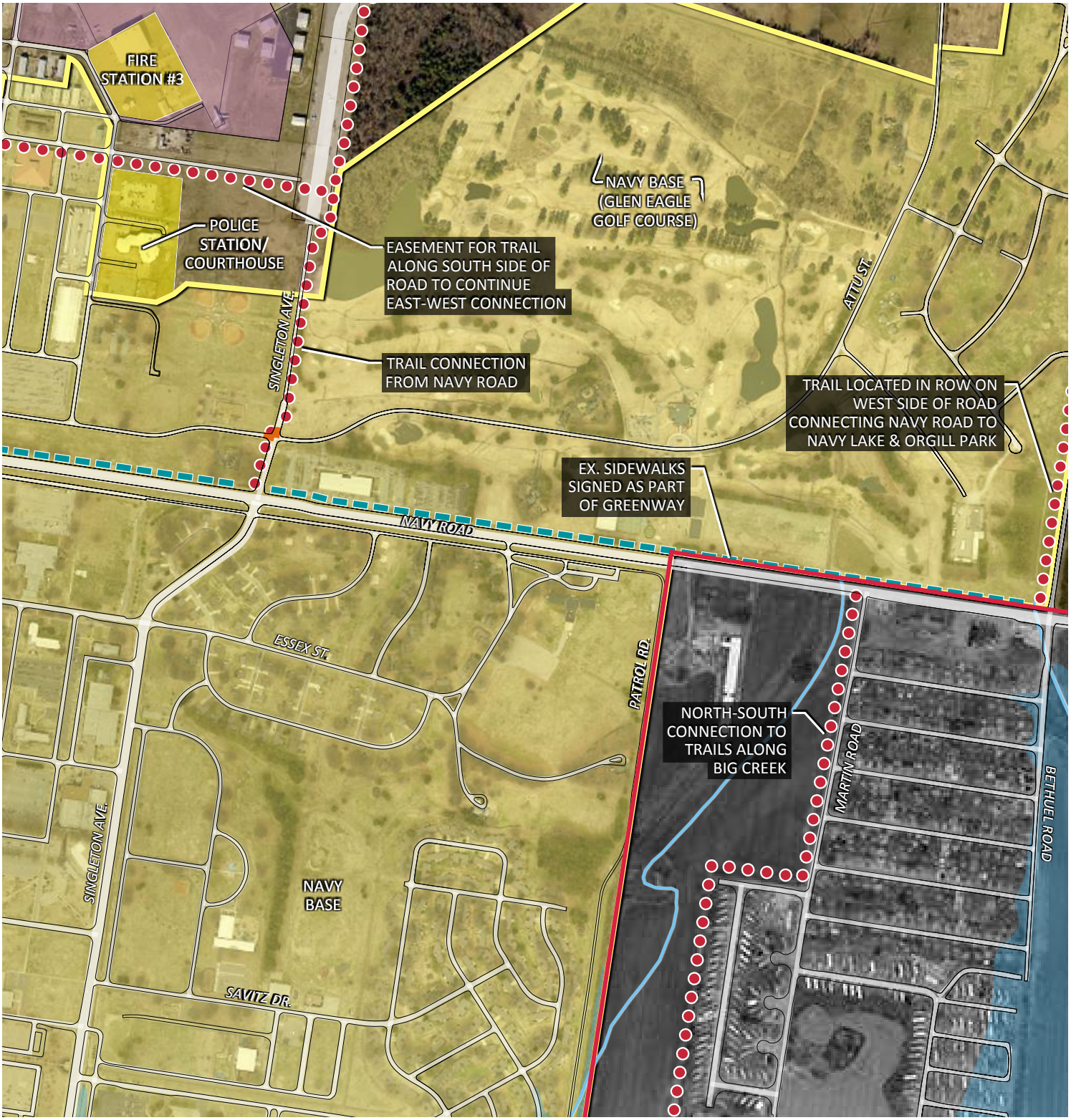


ENLARGEMENT-06



LEGEND

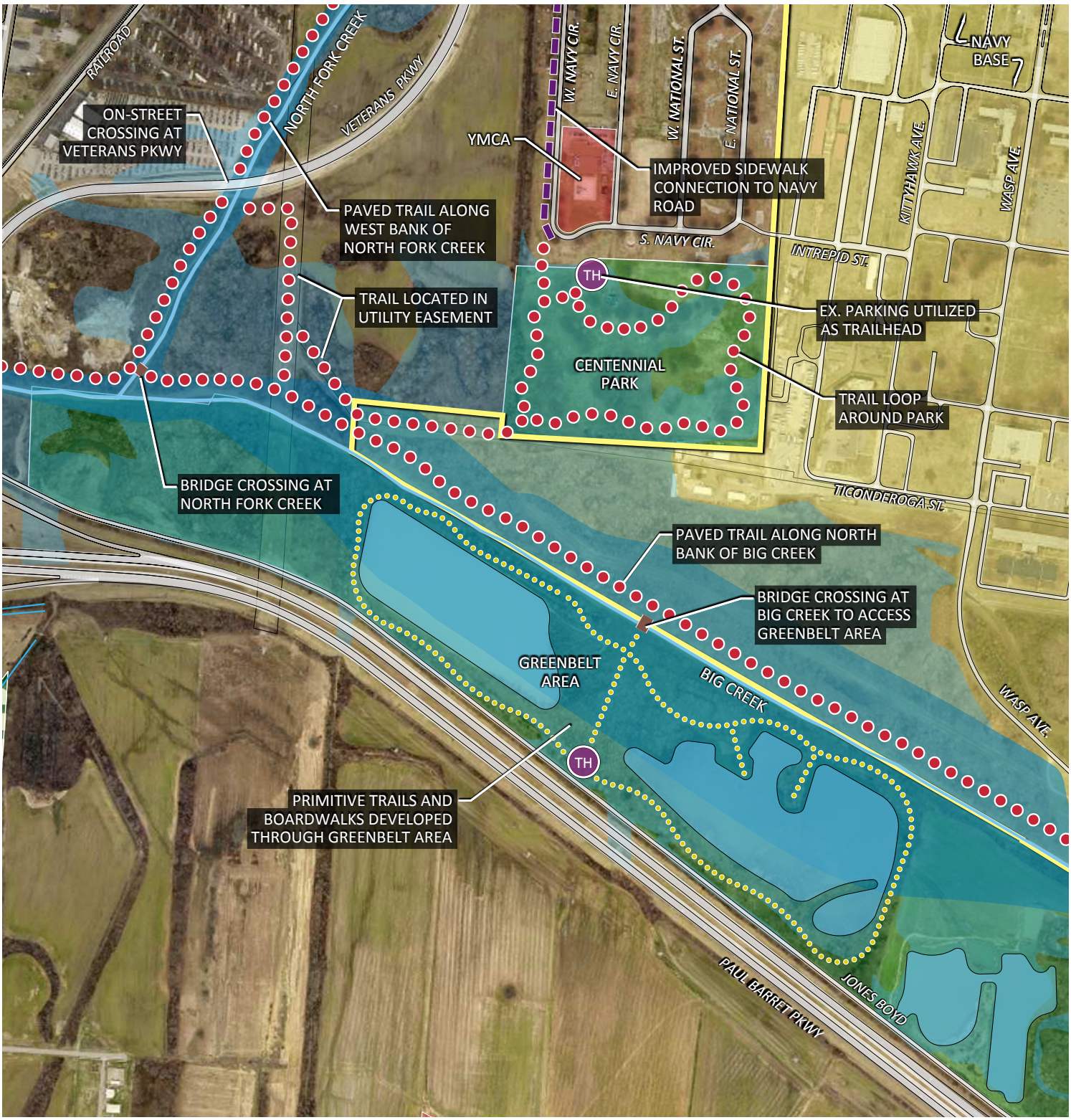
- PARKS
- MUNICIPAL FACILITIES
- SCHOOLS
- POINTS OF INTEREST
- AIRPORT
- NAVY BASE
- FLOODWAY
- FLOODPLAIN
- MILLINGTON CITY LIMITS
- MILLINGTON ANNEXATION LIMITS
- TH PROPOSED TRAILHEAD
- PROPOSED GREENWAY TRAIL (PAVED)
- PROPOSED BRIDGE
- CROSSWALK
- PROPOSED GREENWAY TRAIL (UNPAVED)
- EX. SIDEWALK
- EX. SIDEWALK (IMPROVE)



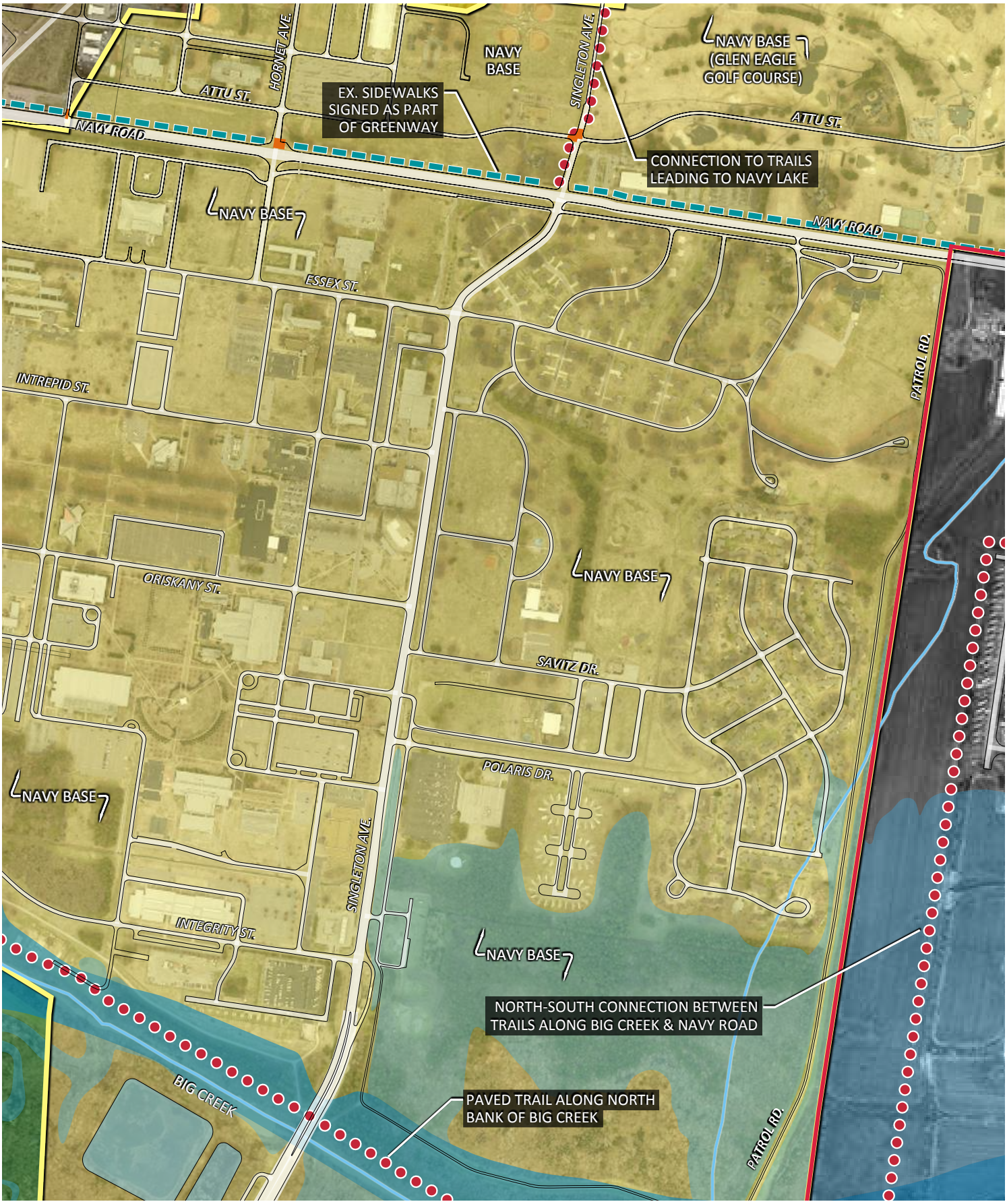
ENLARGEMENT-07

LEGEND

- PARKS
- MUNICIPAL FACILITIES
- SCHOOLS
- POINTS OF INTEREST
- AIRPORT
- NAVY BASE
- FLOODWAY
- FLOODPLAIN
- MILLINGTON CITY LIMITS
- MILLINGTON ANNEXATION LIMITS
- TH PROPOSED TRAILHEAD
- PROPOSED GREENWAY TRAIL (PAVED)
- PROPOSED BRIDGE
- CROSSWALK
- PROPOSED GREENWAY TRAIL (UNPAVED)
- EX. SIDEWALK
- EX. SIDEWALK (IMPROVE)



ENLARGEMENT-08



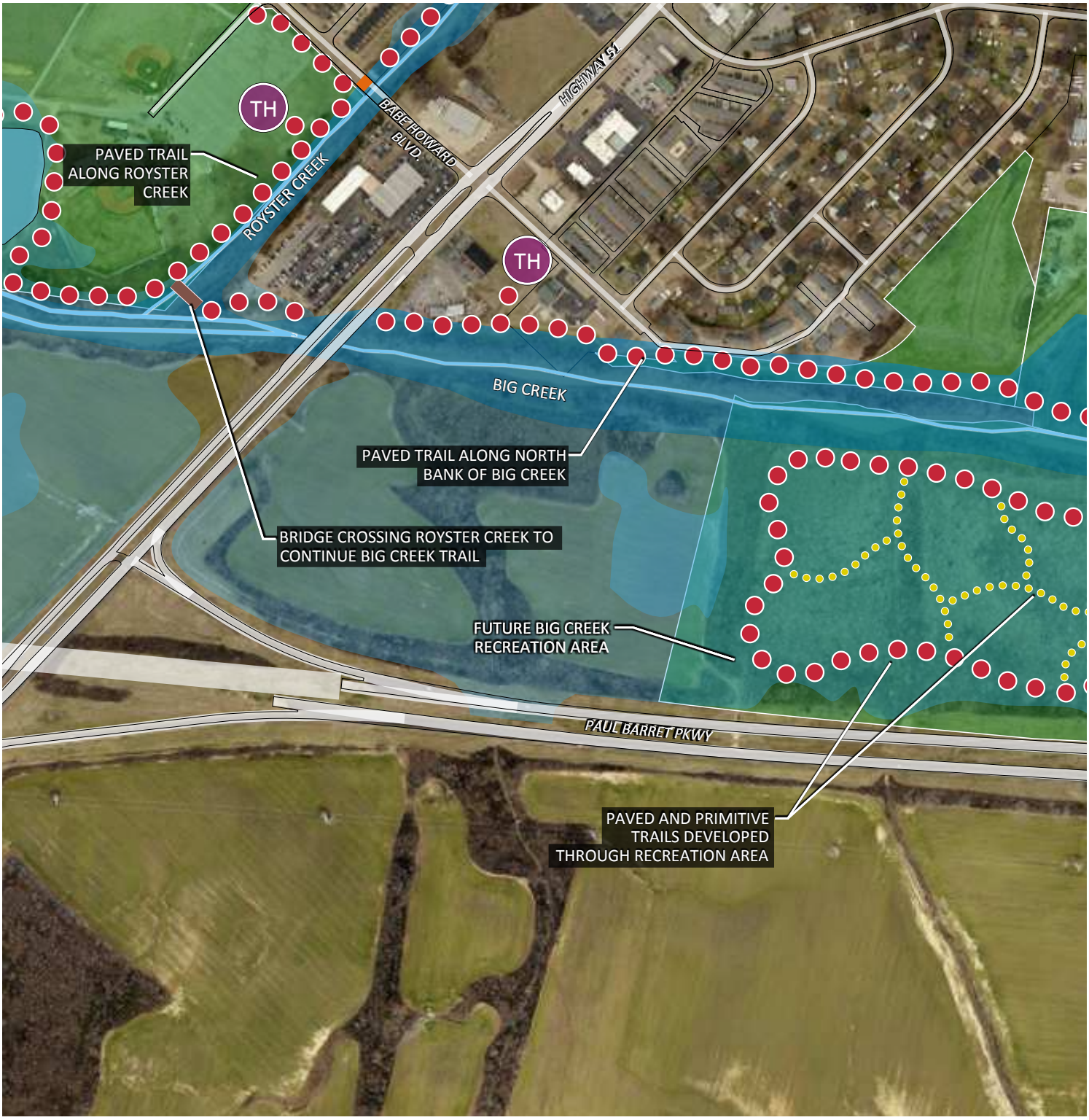
LEGEND

- PARKS
- SCHOOLS
- POINTS OF INTEREST
- AIRPORT
- NAVY BASE
- FLOODWAY
- FLOODPLAIN
- MILLINGTON CITY LIMITS
- MILLINGTON ANNEXATION LIMITS
- TH PROPOSED TRAILHEAD
- PROPOSED GREENWAY TRAIL (PAVED)
- PROPOSED BRIDGE
- CROSSWALK
- PROPOSED GREENWAY TRAIL (UNPAVED)
- EX. SIDEWALK
- EX. SIDEWALK (IMPROVE)

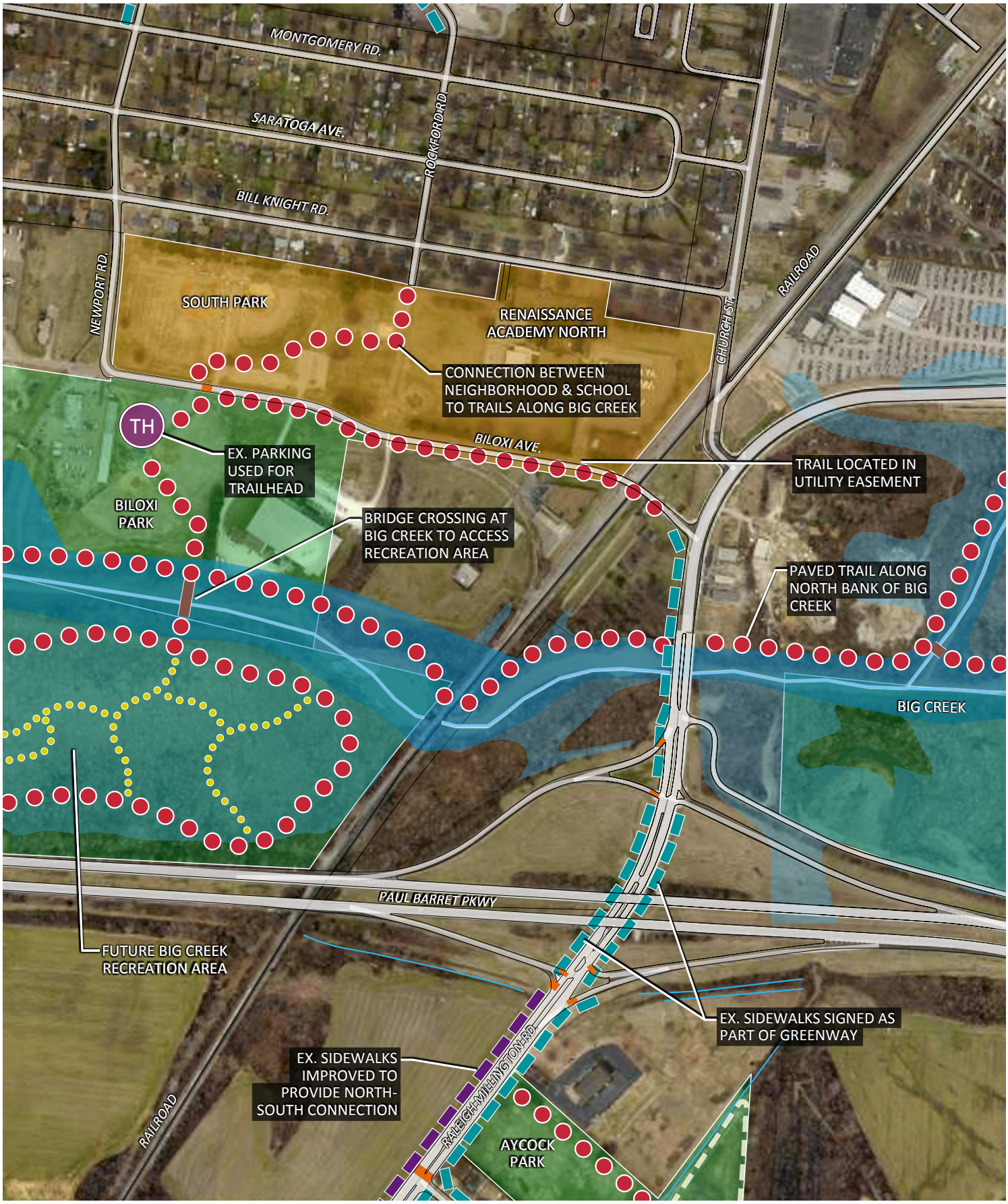
ENLARGEMENT-09

LEGEND

- PARKS
- MUNICIPAL FACILITIES
- SCHOOLS
- POINTS OF INTEREST
- AIRPORT
- NAVY BASE
- FLOODWAY
- FLOODPLAIN
- MILLINGTON CITY LIMITS
- MILLINGTON ANNEXATION LIMITS
- TH PROPOSED TRAILHEAD
- PROPOSED GREENWAY TRAIL (PAVED)
- PROPOSED BRIDGE
- CROSSWALK
- PROPOSED GREENWAY TRAIL (UNPAVED)
- EX. SIDEWALK
- EX. SIDEWALK (IMPROVE)



ENLARGEMENT-10



Navy Road Intersection - Before

Since Navy Road is one of the main thoroughfares for Millington, it should be included in the greenway plan. Connecting Navy Road to the greenway system requires crossing Highway 51, one of the busiest intersections in Millington. The intersection currently includes traffic lights and crosswalk striping, but the visibility would need to be increased, along with signage, to create as safe and comfortable a crossing as possible.

Navy Road Intersection - After

The Highway 51/Navy Road intersection serves as a front-door for Millington. Improvements here are extremely visible and can have impacts throughout the City. Improved traffic signal signage can be installed to coincide with a design theme for the City and the Greenway system. Additional crosswalks and bollards can be installed to reflect the previous improvements made to the Navy Road streetscape. Greenway signage can be installed along Highway 51 and Navy Road to identify the corridor. Sidewalks along Highway 51 can be improved, and green space can be added to create some measure of separation between the parking areas and pedestrians and bicyclists.

School Avenue - Before

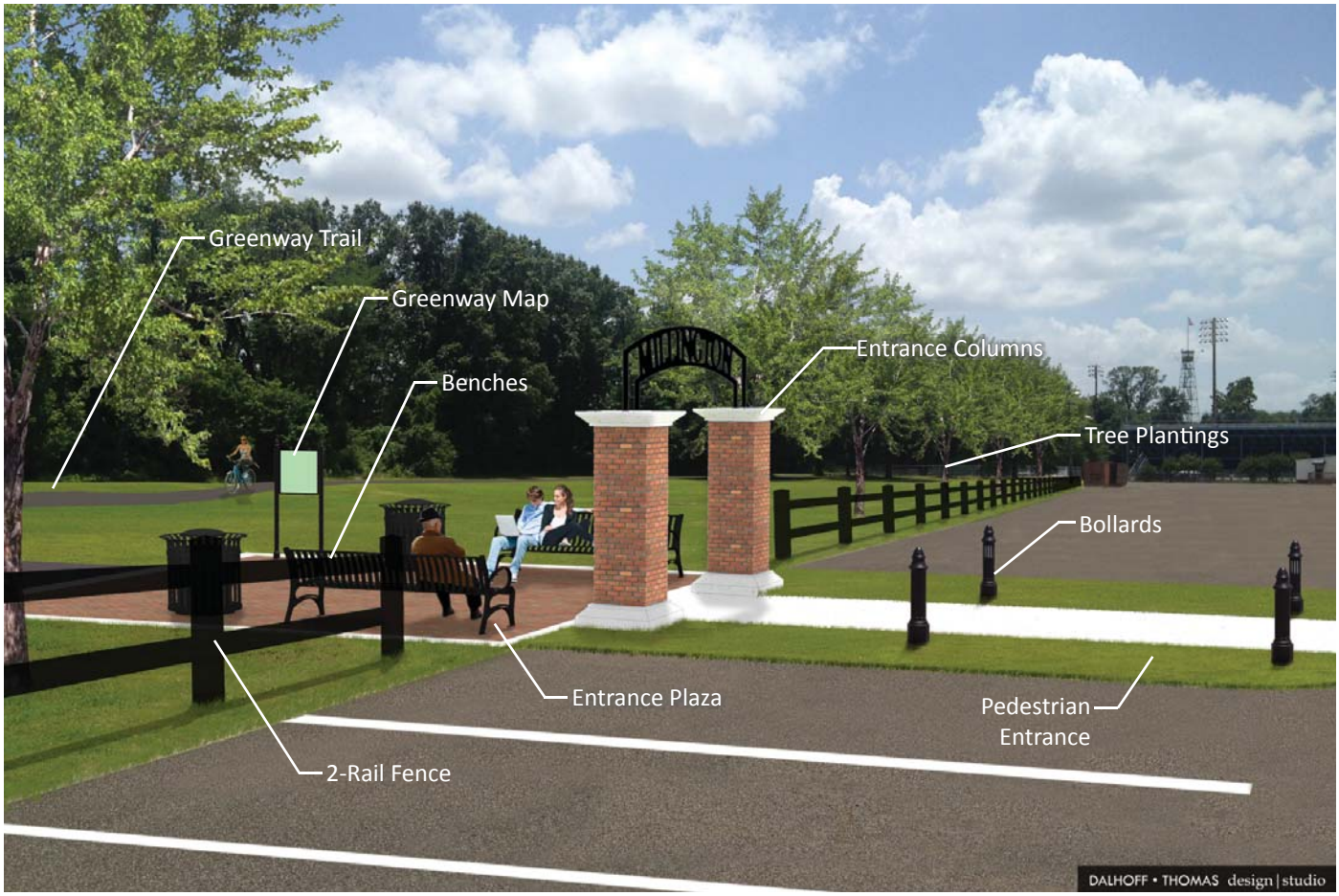
School Avenue could be developed as a main corridor to connect sidewalks along Wilkinsville Road to trails along North Fork Creek. The existing sidewalk is narrow and needs repair in many places. The pavement is wider than it needs to be for a 2-lane road.

School Avenue - After

To create a corridor for a greenway trail within the existing School Avenue R.O.W., the pavement width can be reduced by 5'-6'. Removing pavement allows the City to install a wider sidewalk that can accommodate more pedestrian and bicycle circulation. Greenway signage can be installed, identifying this connection as part of the trail system. Crosswalks can be installed at intersections, and improved lighting can be installed to provide pedestrain safety.

U.S.A. Stadium - Before

One of the larger parks in the City of Millington, U.S.A. Stadium is bordered on the south by Big Creek, and on the east by Royster Creek. With an existing parking lot, ample open space, and adjacent restroom facilities, the park provides the perfect location to serve as a western trailhead that connects east and north to the Millington Greenway, as well as provide a southern trail connection along Big Creek to trails from Memphis.



U.S.A. Stadium - After

Several design items can be used to create a sense of identity for the greenway system. Parking spaces can be removed to install a sidewalk and greenspace, creating a safer pedestrian entrance, instead of requiring people to walk between vehicles to enter the trails. A formal entrance, combining brick columns and an overhead arch, creates a sense of arrival and provides a definite entry point. A small plaza with benches, trash cans, and a greenway map provides an area for people to meet or rest as they travel the greenway along Royster Creek. Elements such as the 2-rail fence, bollards, tree plantings, and lighting can be used consistently throughout the City to identify sites as a City of Millington park.

CHAPTER 4: DESIGN GUIDELINES

These guidelines provide a variety of trail concepts and ideas. These guidelines are not a substitute for a thorough examination and detailed landscape architectural and engineering evaluation of each project segment. These guidelines serve as minimum standards for greenway facility development. They are not to be used for construction.

The following resource materials have been used in the preparation of these guidelines:
- American Association of State Highway Transportation Officials (AASHTO)
- Americans with Disabilities Act (ADA)
- Designing Sidewalks and Trails for Access: Part 2
- Manual on Uniform Traffic Control Devices (MUTCD).

For more in-depth information and design development standards, the following publications should be consulted:
- Guide to the Development of Bicycle Facilities, Updated in 2000 by the American Association of State Highway Transportation Officials (AASHTO). Available from FHWA or AASHTO. (www.aashto.org/bookstore/abs.html)
- Manual on Uniform Traffic Control Devices (MUTCD), Published by the U.S. Department of Transportation, Washington, DC
- Universal Access to Outdoor Recreation: A Design Guide, Published by PLAE, Inc., Berkeley, CA, 1993
- Designing Sidewalks and Trails for Access: Part Two - Best Practices Design Guide, Published by the U.S. Department of Transportation, Washington, DC, 2001

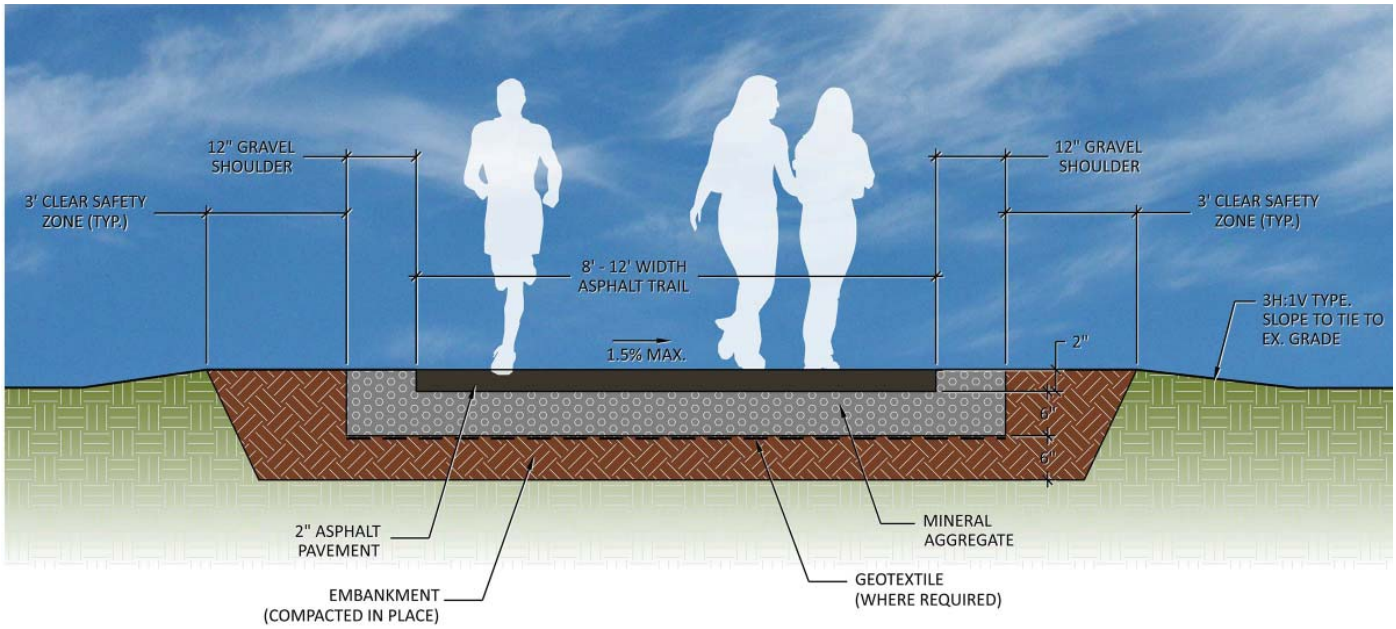
Other useful web sites for information include:
- Rails-to-Trails Conservancy - www.railtrails.org
- National Park Service - www.nps.org
- U.S. Department of Transportation - www.walkinginfo.org and www.bicyclinginfo.org
- U.S. Department of Transportation - Federal Highway Administration - Bicycle and Pedestrian Program (www.fhwa.dot.gov/environment/bikeped/index.htm)
- Trails and Greenways Clearinghouse - www.trailsandgreenways.org
- Pedestrian and Bicycle Information Center - www.pedbikeinfo.org

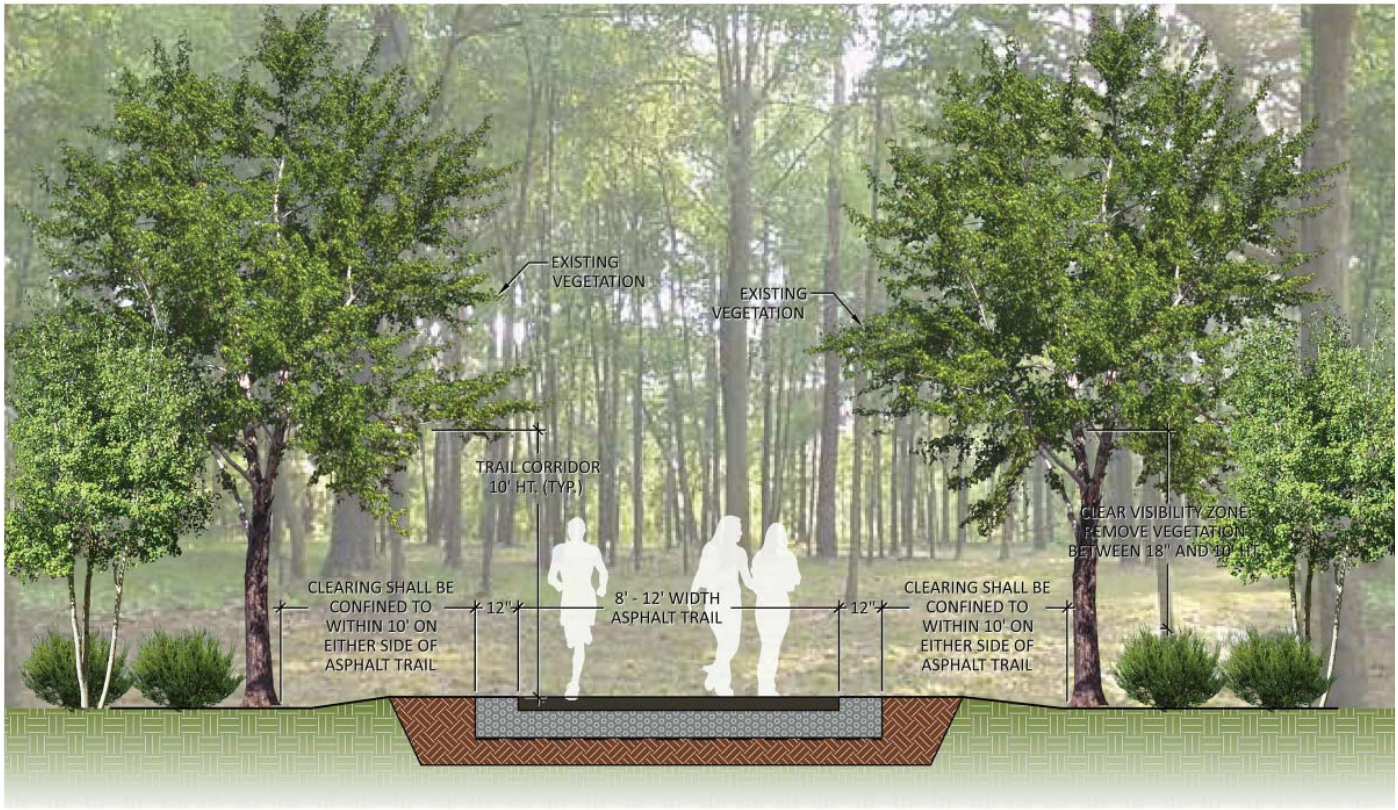
Types of Trails

Multi-Use Trail

For this report, a multi-use trail refers to a eight to twelve-foot wide, paved trail, typically located in a natural, or green setting. These trails are considered the primary corridors of the greenway system, and are recommended for areas expecting frequent and heavy use. Such areas could include high-density residential settings, or along routes that connect popular destinations. While construction costs are higher for paved trails than they are for natural surface trails, maintaining paved trails costs less. This should be considered when evaluating the long-term operational budget for different trail surfaces.

1. **The multi-use trail makes up the majority of the trail system and is intended for all users and multiple modes of travel along the trail.**
2. **Contractor must construct trail to match existing grade and allow storm drainage to sheet drain across trail.**
3. **Trail edges shall be “dressed out” to an even level grade.**
4. **The 6’ wide area of pavement centered on the trail shall have ADA compliant cross slopes of not more than 2%.**
5. **Contractor shall clear forest understory trees (less than 2” cal.) and brush for a distance of 10’ on both sides of the trail.**
6. **Contractor shall use wood chipper to dispose of landscape clearing debris. wood chips shall be blown into woods adjacent to trail.**


12" GRAVEL SHOULDER
3' CLEAR SAFETY ZONE (TYP.)
8' - 12' WIDTH ASPHALT TRAIL
1.5% MAX.
12" GRAVEL SHOULDER
3' CLEAR SAFETY ZONE (TYP.)
3H:1V TYPE. SLOPE TO TIE TO EX. GRADE
2"
6"
6"
2" ASPHALT PAVEMENT
EMBANKMENT (COMPACTED IN PLACE)
MINERAL AGGREGATE
GEOTEXTILE (WHERE REQUIRED)


EXISTING VEGETATION
EXISTING VEGETATION
TRAIL CORRIDOR 10' HT. (TYP.)
CLEAR VISIBILITY ZONE. REMOVE VEGETATION BETWEEN 18" AND 10' HT.
CLEARING SHALL BE CONFINED TO WITHIN 10' ON EITHER SIDE OF ASPHALT TRAIL
12"
8' - 12' WIDTH ASPHALT TRAIL
12"
CLEARING SHALL BE CONFINED TO WITHIN 10' ON EITHER SIDE OF ASPHALT TRAIL

Street Based Trail

Some sidewalks and bicycle-friendly roadways (aka, Complete Streets) are recommended as routes in order to preserve overall network connectivity (where greenway trails are not feasible). Such portions of trail are referred to as street-based trails. These street trails ideally support all modes of transportation.

- Trails typically include sidewalks (minimum width of 5'), high visibility crosswalks, curb ramps, and pedestrian crossing signals at intersections with traffic lights.
- Shared-lane markings, wide outside lanes, paved shoulders, or bicycle lanes, are recommended for bicyclists.
- Bicycle shared lane markings (or 'sharrows') make motorists aware of bicycles, show bicyclists the appropriate direction of travel, and encourage bicyclist safety. The shared lane marking stencil is used on 35 MPH or slower streets where travel lanes are too narrow for striping bike lanes.
-

Natural Surface Trail

A natural surface trail refers to an unpaved trail, 3'-6' wde This type of trail could be used in environmentally sensitive areas, in areas where the typical paved cross-section cannot fit, or in areas where frequent use is unexpected or undesirable. Materials often include mulch, gravel, or natural ground.

Concrete Trail

The concrete trail is to be used under bridges and underpasses. Through its long standing use along the shores of streams and rivers, concrete has proven to be a superior surface material in a floodprone area. Trail underpasses typically utilize existing overhead roadway bridges adjacent to steams or culverts under the roadway that are large enough to accommodate trail users.

Guidelines/Considerations

- Trail shall be 12' wide minimum.
- Surface shall be concrete.
- Vertical clearance for an underpass is ideally 10', but should be minimum 8' per AASHTO.
- Lighting is recommended for safety.

Footbridge

Footbridges are used where the span of a waterway is too large for culverting, where there is a wetland type area, or to cross a larger creek or river.

Guidelines/Considerations

- Prefabricated bridges are recommended because of their relative low cost, minimal disturbance to the project site, and ease of installation.
- Bridge materials should be able to withstand exposure and possible inundation.
- All abutment design should be sealed by a qualified engineer.

Street Crossings

The most important aspect of all road crossings is pedestrian safety. When greenway trails have to cross a road it is preferred that the crossing occurs at a signalized intersection, with a crosswalk. This may require that the trail be extended a longer distance than would typically be required to connect with the intersection crossing.

Only under certain circumstances should a pedestrian mid-block crossing be employed. These situations require additional planning to ensure pedestrian safety. The optimal solution for these locations is a grade separated crossing that utilizes a bridge or pedestrian underpass.

Treatment of mid-block trail crossing types should be based on the speed limit for a road and approved by Millington Engineering Department. Elements of a mid-block crossing include:

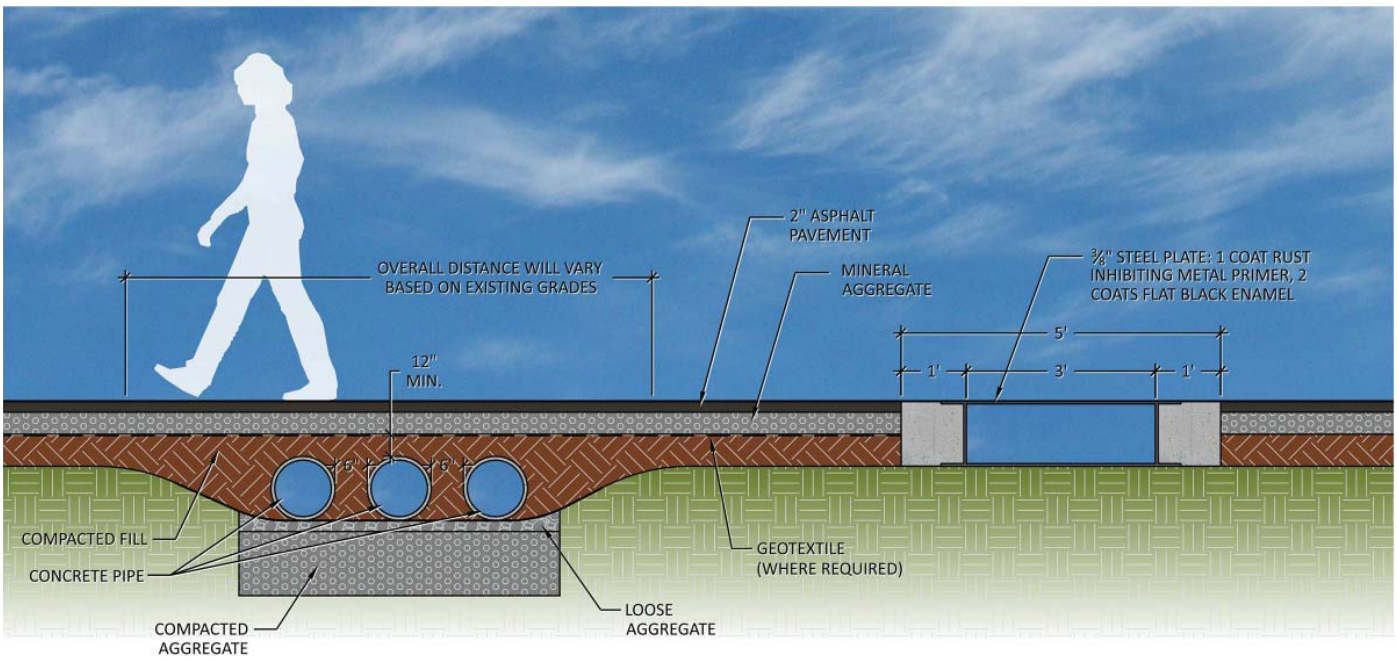
- Warning and stop signs at trail approaches to road
- 10' wide crosswalk, imprinted asphalt with ladder bar pattern, across road and curb ramps at each end
- Warning signs along road at approaches to trail crossing
- Distinctive markers at approach to trail.
- Stamped concrete for the first 50 feet of both sides of the greenway trail.
- Rumble strips or pavement markings
- Pedestrian activated traffic signals
- Planted median in place of center lane; +/- 200 ft. long (each side of trail crossing)
- Trail crossing – striped or imprinted asphalt; flush through median

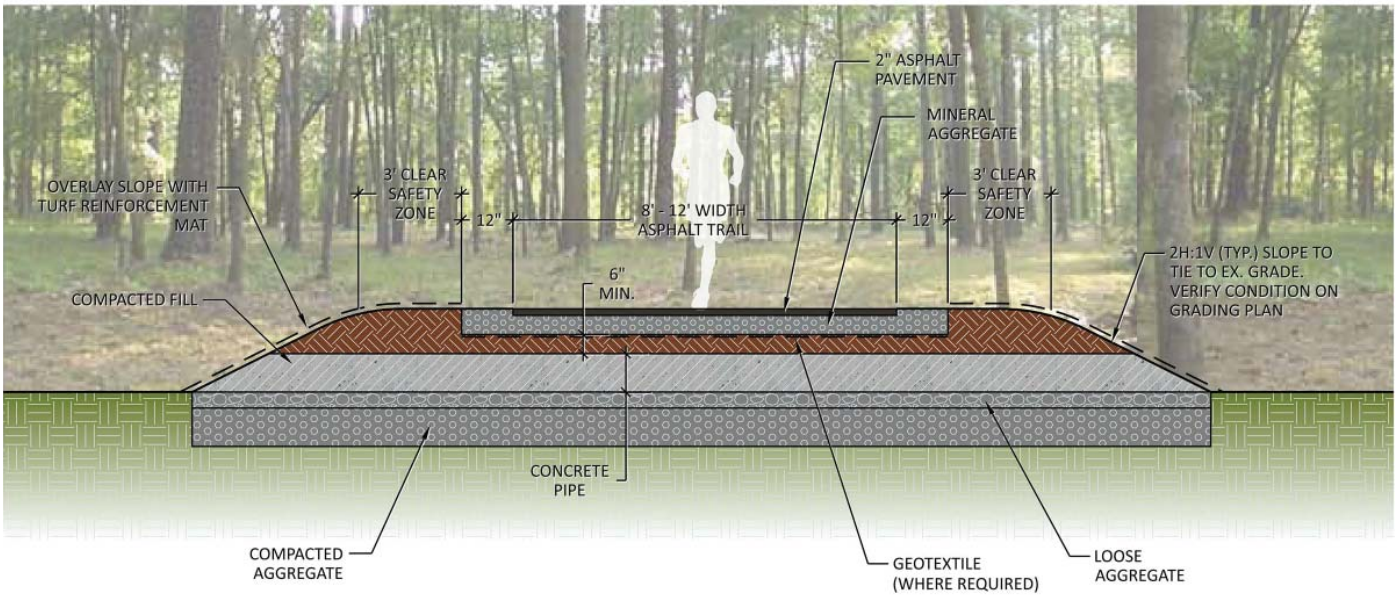
Culvert

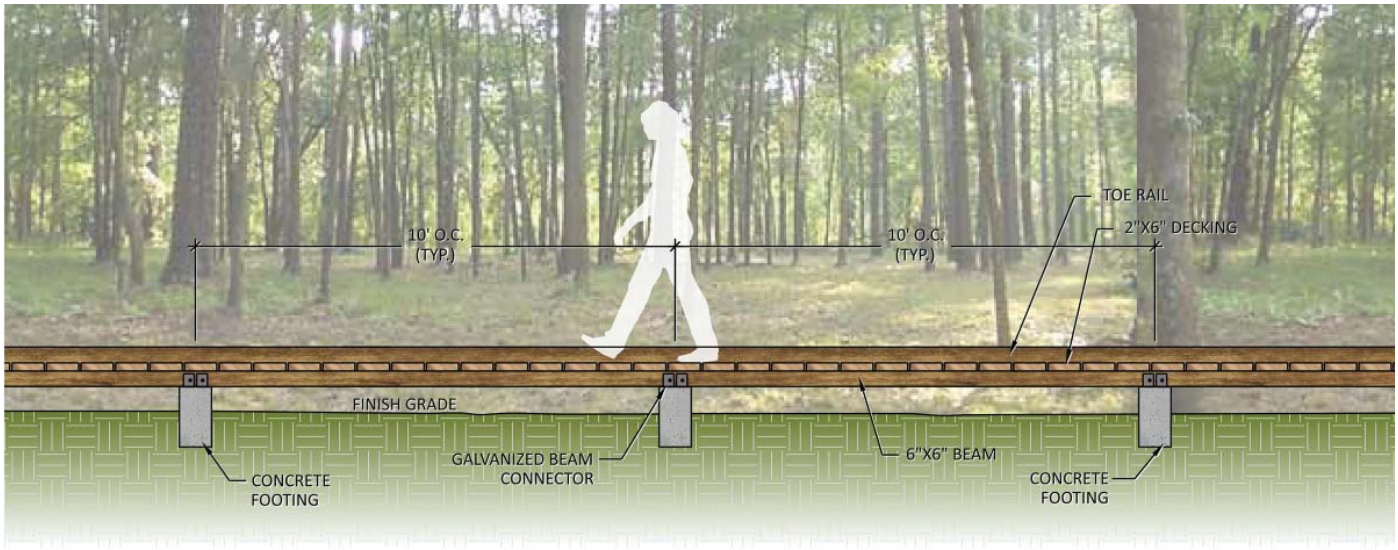
Culverting is used to move stormwater from surrounding land underneath the greenway to prevent damage.

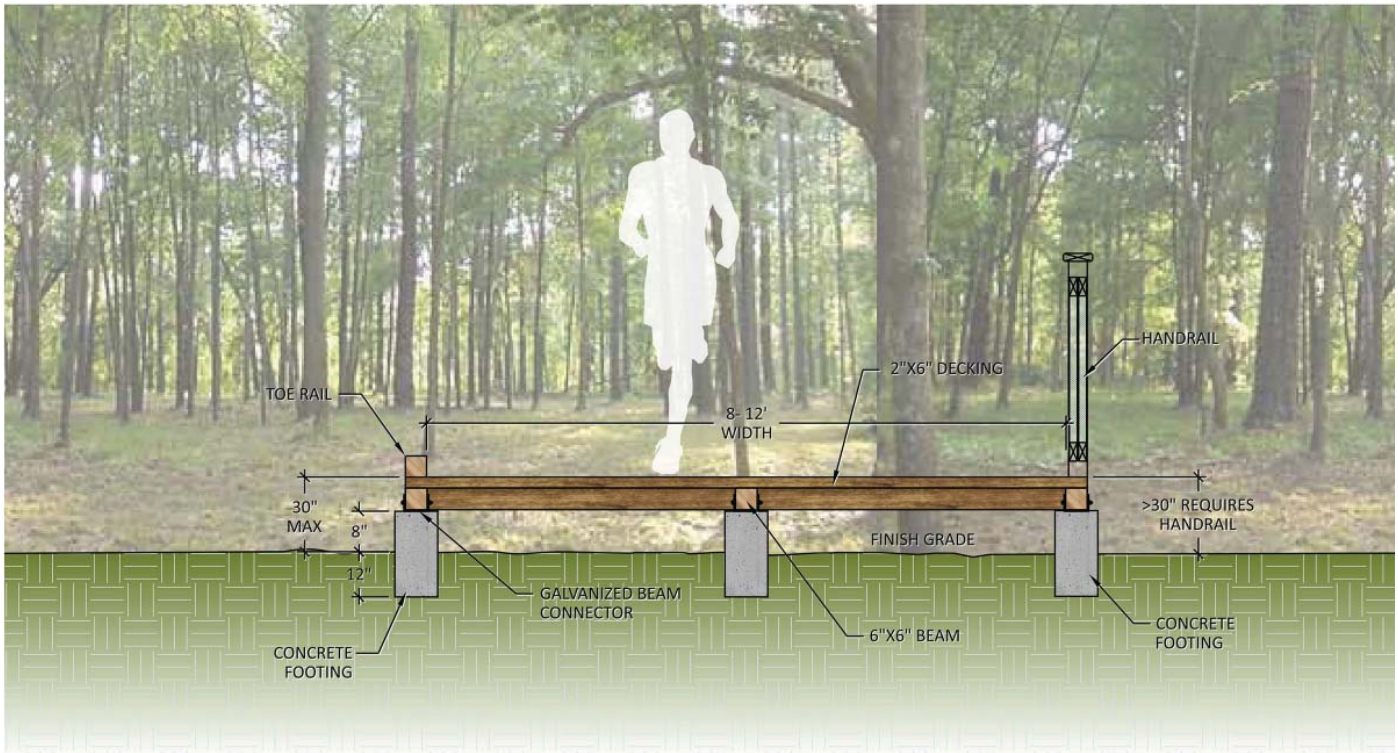
Trail Drainage

- Because of safety concerns and erosion, site drainage should be collected on the uphill side of the trail and piped under the trail.
- A diversion ditch shall be cut on the uphill side of the trail to direct water to the creek or to storm drainage culverts to allow drainage to flow under the trail. The edge of the ditch shall be a minimum of 2 feet from the edge of the asphalt trail.
- Drainage culverts shall be reinforced concrete pipes, according to City standards.
- Culverts shall have a minimum of 12"compacted fill over the pipe.
- A class B rip-rap dissapator with filter fabric below shall be installed at the pipe out-flow.
- Culverts should be installed so that there is no change in the stream bottom at the culvert inlet or outlet.
- Formal design will determine pipe diameter sizing.



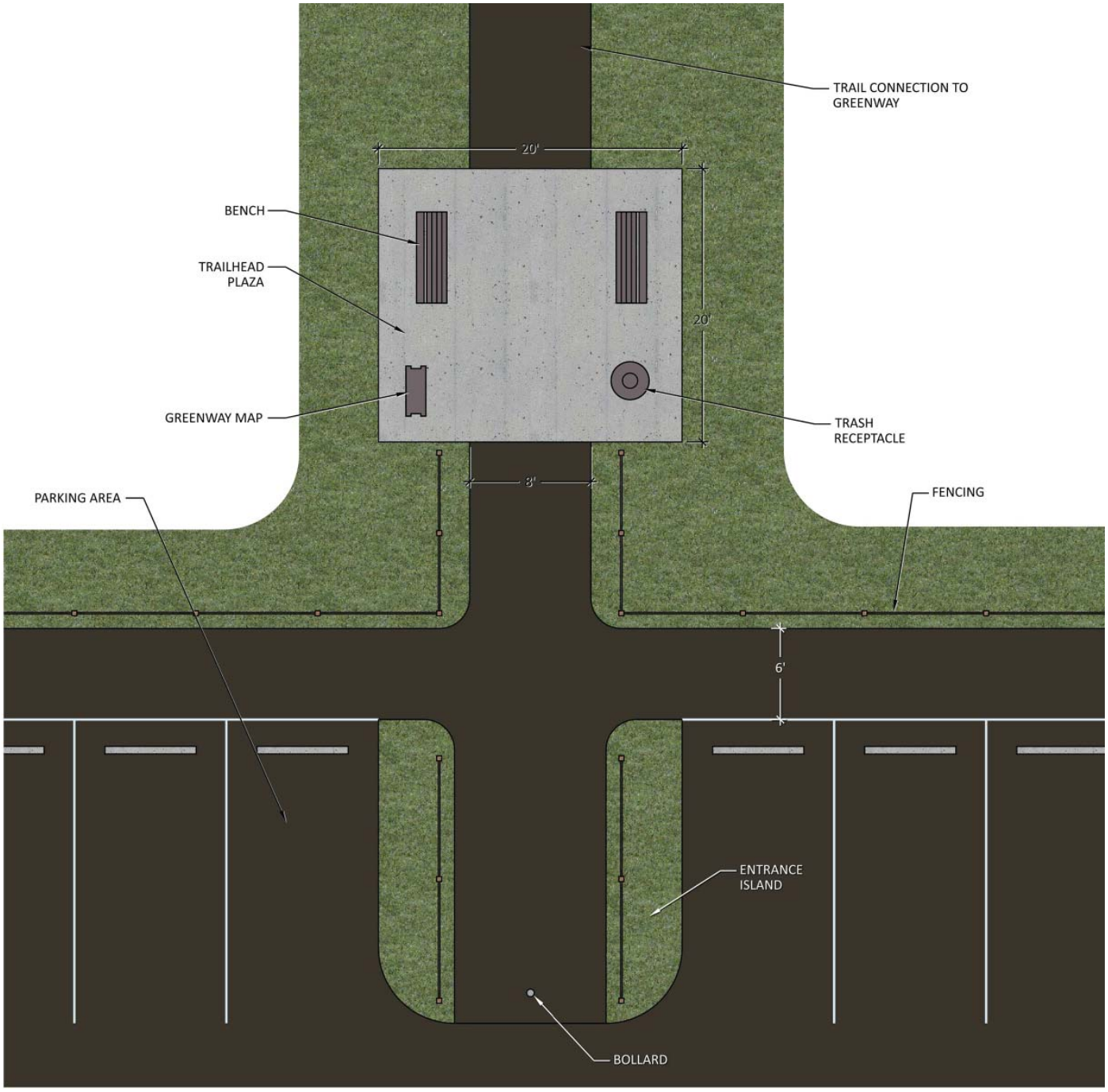






Raised Boardwalk

1. **The raised boardwalk should be used in environmentally sensitive areas, or areas that may flood frequently.**
2. **The boardwalk should be wide enough to comfortably allow the passage of 2 adults, minimum of 48".**
3. **The boardwalk must be strong enough to support anticipated loads with a safety feature.**
4. **The boardwalk may include features such as viewing blinds or observation platforms and towers to facilitate nature watching.**
5. **Construction materials should resist rot and deterioration.**
6. **Depending on height above grade, the boardwalk must have appropriate railings or fencing.**



TRAILHEAD NOTES

1. **A plaza area with seating should be provided to give users a place to meet or rest when traveling on the greenway.**
2. **A kiosk/trail map should be provided to show users their location relative to the overall greenway system, along with announcements, safety requirements, and user information.**
3. **Where possible, existing parking lots should be utilized as trailhead locations.**
4. **An entrance island should be included to provide a safe entrance to the greenway for pedestrians entering through a parking area.**
5. **Greenway trailheads shall be secured with entry gates or bollards, to prevent unauthorized vehicles from accessing the trail.**

CHAPTER 5: IMPLEMENTATION

While the Greenway Plan provides long-term goals for the City of Millington, implementation and development of specific projects will need to be prioritized based on available opportunities, areas of greatest need/impact, budget, time frame, cooperative efforts, and maintenance requirements. A recommended list of priorities is provided.

1. **Develop Greenway in Phases**
   The Millington Greenway is a major civic project that will need to be developed in phases. While the Master Plan provides the guidelines for the general development, it should be considered an active document – flexible enough to accommodate future changes that will inevitably come from additional public input. More detailed information about physical conditions, new partnership opportunities that develop, and the availability of project funding will all impact how the Greenway is ultimately developed. A Phasing Plan will assist the City in focusing efforts to achieve the greatest impact.

2. **Take Advantage of High-Visibility Opportunities**
   Low cost, high visibility opportunities exist for the City to jump-start implementation of the Greenway. Development of trails within properties already owned or controlled by the City, including properties in the R.O.W., and enhancement of existing trails and sidewalks can create an excitement in the community that the City is serious about developing a greenway system. High visibility projects also increase interest in the project, which can motivate more citizens to be involved and supportive of the plan.

3. **Focus Improvements on "Greening"**
   As initial properties are developed, the Greenway can be made "green" for high visibility areas by minor clearing/grading/seeding, and safety improvements. A mowing maintenance should be within the capability of the City's current park maintenance operations. Adjacent property owners will be encouraged to match this simple maintenance regime for properties abutting the Greenway. Signs at Greenway entrances are relatively low cost, early improvements that showcase public "ownership" and community pride in Millington.

4. **Develop "Adopt a Greenway" System for Community Partnerships**
   Community organizations can help the City to develop and maintain the Greenway on a block-to-block basis. Partnership assistance can include: installation of amenities, periodic maintenance, and block watch coordination with police. "Adopt a Greenway" signs can be installed on each block to acknowledge the contributions from the individual organizations. The city can institutionalize these volunteer groups by a assigning a coordinator in one of the City departments to regularly convene volunteer representatives, as well as provide a procedure for the City to review proposals from volunteers to make improvements to individual blocks.

5. **Acquisition of the Greenway**
   Negotiate the terms for control of the Greenway R.O.W. with property owners to enable the City to take advantage of the opportunities for greenway development funding from state, federal and other sources.

6. Secure Funding

The next phase, after master planning, is design and construction of various Greenway components. To achieve this goal, greenway trail developers usually tap into funding from multiple sources. A list of funding sources is included in the document.

7. Official Map

The Official Map is a planning tool that can be adopted by the municipality to identify future public improvements that it wishes to see developed on public and private properties. Improvements can include roads, utility rights of ways, trail, and other public improvements. Items included on the Official Map must be acted upon by the municipality within one year of an official land development submission for a specific parcel. If the municipality declines to act, then the applicant is not obligated to include the public improvement in the plans.

Recommended Priorities for Implementation

1. 'Branding' the Greenway

To increase awareness and visibility of the Greenway, the City should create a unique, identifiable logo and signage package that can be used throughout Millington. Trailheads should be developed with a theme that readily relates them to the Greenway system, using consistent signage, amenities, maps, and entrance elements. The City may also want to give the Greenway a unique name that references elements unique to Millington, such as the Goat Days Festival, Flag City, or the Navy base.

2. Greenway Coordinator

Many municipalities have obtained grant money to hire a Greenway Coordinator whose job is to begin the process of initiating a greenway system. Responsibilities include writing grants, talking to landowners about easements, coordinating property sales, public education, and publicity.

3. USA Stadium Park

As a City of Millington Park, USA Stadium presents the opportunity to develop a destination park by creating a walking trail that loops the property. The existing parking lot can be used as a trailhead, as well as creating a second trailhead at the end of Quito Road. The loop can be signed as part of the Greenway, and can serve as the initial node that promotes extention to Civitan Park or further along Big Creek.

4. Navy Road

Continue improvements along Navy Road, including repairing sidewalks, crosswalks, bollards, lighting, pavers, and landscape. Add signage designating Navy Road as part of the Greenway.

5. Big Creek - Phase 1

The levee along Big Creek serves as an opportunity to begin the the main east-west corridor for the Millington Greenway. If proper clearances can be granted, the levee on the north side of the creek would be an ideal location to construct a greenway. A trailhead can be developed at the Babe Howard Boulevard location, as well as utilizing the existing parking lot at Biloxi Park for a second trailhead. This connection would create a 3/4 mile trail segment between the 2 trailheads.

6. Biloxi Park neighborhood

To provide better access for the Biloxi Park neighborhood, a trail could be developed beginning where Rockford Road dead ends, through South Park to Biloxi Park. A crosswalk could also be installed where the trail crosses Biloxi Avenue.

7. Wilkinsville Road

Wilkinsville Road is a high visibility street, connecting many municipal-owned properties including Millington High School, Millington Civic Center, Millington Middle School, and

Jameson Park. Sidewalks along Wilkinsvile Road could be improved and widened, the path could be signed as part of the Greenway, crosswalks could be installed, along with consistent bollards, light standards, fencing, and landscaping.

8. Old Town

With Old Town being such an important part of Millington, improvements made in this area can have a big impact for the rest of the City. Sidewalks in Old Town can be improved, along with the installation of crosswalks, signage, and consistent decorative elements. The connection between Baker Community Center and the Farmer's Market can be highlighted. A trail can be installed across the City-owned property on Easley Street to provide a more direct connection between the 2 facilities.

CHAPTER 6: FUNDING SOURCES

Successful implementation of the recommendations of the Millington Greenway Master Plan will require a strong level of local support and commitment through a variety of local funding mechanisms. Perhaps most important is the addition of greenway recommendations from this Plan into the City's annual budget. These improvements should become a high priority and be supported through portions of the funding currently used for parks and recreation, transportation, planning, community development, travel and tourism, and local bonds.

Millington should also seek a combination of funding sources that include local, state, federal, and private money. Fortunately, the benefits of protected greenways, bicycling, and walking trails are many and varied. This allows programs in Millington to access money earmarked for a variety of purposes including water quality, hazard mitigation, recreation, air quality, alternate transportation, wildlife protection, community health, and economic development. There is lots of competition for state and federal funds, so it becomes imperative that local governments work together to create multi-jurisdictional partnerships and to develop their own local sources of funding. These sources can then be used to leverage outside assistance.

A variety of funding has been used throughout Tennessee to support the planning, design and construction of urban and rural bicycle and greenway projects. The largest single source of funding for these projects has come from the Surface Transportation Act, known as the Safe, Accountable, Flexible and Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU).

The majority of federal funding is distributed to states in the form of block grants and is then distributed throughout a given state for specific projects. State funding programs in Tennessee also support the creation of greenways. Tennessee has developed a broad array of funding sources that address land acquisition, green infrastructure development, and trail facility development.

Additionally, there are many things that Millington can do to establish their own funding greenway initiatives. For the most part, it takes money to get money. For Millington, it will be necessary to create a local funding program through one of the methods that is defined within this report. Financing will be needed to administer the continued planning and implementation process, acquire parcels or easements, and manage and maintain facilities.

Finally, in many cases, it may take professional assistance, such as a skilled grant writer, to successfully secure these competitive funding opportunities.

This appendix lists options for federal, state, and local sources of funding. It is not intended to be an exhaustive list, as there are many other funding sources available that should be researched and pursued as well. Creative planning and consistent monitoring of funding options will likely turn up new opportunities not listed here.

Overview of National and Federal Funding Sources

http://www.pps.org/reference/funding-sources-for-greenway-projects/

Most federal programs provide block grants directly to states through funding formulas. For example, if a Tennessee community wants funding to support a transportation initiative, they would contact the Tennessee Department of Transportation and not the US Department of Transportation to obtain a grant. Despite the fact that it is rare for a local community to obtain a funding grant directly from a federal agency, it is relevant to list the current status of federal programs and the amount of funding that is available to Tennessee through these programs.

Community Block Development Grant Program (HUD-CBDG)
The U.S. Department of Housing and Urban Development (HUD) offers financial grants to communities for neighborhood revitalization, economic development, and improvements to community facilities and services, especially in low and moderate-income areas. Grants from this program range from $50,000 to $200,000 and are either made to municipalities or non-profits.

Conservation Reserve Program
The U.S. Department of Agriculture (USDA), through its Agricultural Stabilization and Conservation Service, provides payments to farm owners and operators to place highly erodible or environmentally sensitive landscapes into a 10-15 year conservation contract. The participant, in return for annual payments during this period, agrees to implement a conservation plan approved by the local conservation district for converting sensitive lands to less intensive uses. Individuals, associations, corporations, estates, trusts, cities, counties and other entities are eligible for this program. Funds from this program can be used to fund the maintenance of open space and non-public-use greenways, along bodies of water and ridgelines.

Design Arts Program
The National Endowment for the Arts provides grants to states and local agencies, individuals and nonprofit organizations for projects that incorporate urban design, historic preservation, planning, architecture, landscape architecture and other community improvement activities, including greenway development. Grants to organizations and agencies must be matched by a 50-percent local contribution. Agencies can receive up to $50,000.

Economic Development Grants for Public Works and Development of Facilities
The U. S. Department of Commerce, Economic Development Administration (EDA), provides grants to states, counties and cities designated as redevelopment areas by EDA for public works projects that can include developing trails and greenway facilities. There is a 30-percent local match required, except in severely distressed areas where federal contribution can reach 80 percent.

Land and Water Conservation Fund (LWCF) Grants
This Federal funding source was established in 1965 to provide “close-to-home” park and recreation opportunities to residents throughout the United States. Money for the fund comes from the sale or lease of nonrenewable resources, primarily federal offshore oil and gas leases and surplus federal land sales. LWCF grants can be used by communities to build a variety of parks and recreation facilities, including trails and greenways.

LWCF funds are distributed by the National Park Service to the states annually. Communities must match LWCF grants with 50-percent of the local project costs through in-kind services or cash. All projects funded by LWCF grants must be used exclusively for recreation purposes, in perpetuity.

National Recreational Trails Program
These grants are available to government and non-profit agencies, for amounts ranging from $5,000 to $50,000, for the building of a trail or piece of a trail. It is a reimbursement grant program (sponsor must fund 100% of the project up front) and requires a 20% local match. This is an annual program, with an application deadline at the end of January. The available funds are split such that 30% goes towards motorized trails, 30% to non-motorized trails, and 40% is discretionary for trail construction.

Small Business Tree-Planting Program
The Small Business Administration provides small grants of up to $10,000 to purchase trees for planting along streets and within parks or greenways. Grants are used to develop contracts with local businesses for the plantings.

The Transportation Equity Act for the 21st Century (TEA-21)
The primary source of federal funding for greenways is through the Transportation Equity Act for the 21st Century (TEA-21). There are many sections of the Act that support the development of bicycle and pedestrian transportation corridors. Those sections that apply to the creation of greenway systems include:

Section 1302 – Symms National Recreational Trails Fund Act (NRTFA)
A component of TEA-21, the NRTFA is a funding source to assist with the development of non-motorized and motorized trails. In fiscal year 1994, Congress did not fund this national program, and it has become apparent that this funding source is not as stable as the national trail community once envisioned it. In 1993, Congress appropriated only $7.5 million of a $30 million apportionment. The Act uses funds paid into the Highway Trust Fund from fees on non-highway recreation fuel used by off-road vehicles and camping equipment. Motorized and non-motorized trail projects receive a 30-percent share of annual appropriations. Forty percent of the appropriation must be spent on projects that accommodate both user groups. States can grant funds to private and public sector organizations. NRTFA projects are 100-percent federally funded during the first three years of the program. Grant recipients must provide a 20-percent match.

Section 1047 – National Scenic Byways Program
This component of TEA-21 is designed to protect and enhance America's designated scenic roads. Money is available for planning, safety and facility improvements, cultural and historic resource protection, and tourism information signage. Bicycle and pedestrian facilities can be developed in conjunction with scenic roadway projects. Some states with Scenic Byway Programs have developed greenways in conjunction with this initiative.

Section 1008 – Congestion Mitigation & Air Quality Improvement (CMAQ) Program
The CMAQ program was created to reduce congestion on local streets and improve air quality. Funds are available to urban communities designated as "non- attainment" areas for air quality, meaning the air is more polluted than federal standards allow. This funding source

could be considered in the event that the air quality in the region deteriorates. The program is administered by the Federal Highway Administration and the Environmental Protection Agency. A grant recipient must demonstrate that its project will improve air quality throughout the community. Funding requires a 20-percent local match.

Urban and Community Forestry Assistance Program
The USDA provides small grants of up to $10,000 to communities for the purchase of trees to plant along city streets and for greenways and parks. To qualify for this program, a community must pledge to develop a street-tree inventory, a municipal tree ordinance, a tree commission, committee or department, and an urban forestry-management plan.

Watershed Protection and Flood Prevention (Small Watersheds) Grants
The USDA Natural Resource Conservation Service (NRCS) provides funding to state and local agencies or nonprofit organizations authorized to carry out, maintain and operate watershed improvements involving less than 250,000 acres. The NRCS provides financial and technical assistance to eligible projects to improve watershed protection, flood prevention, sedimentation control, public water-based fish and wildlife enhancements, and recreation planning. The NRCS requires a 50-percent local match for public recreation, and fish and wildlife projects.

Wetlands Reserve Program
The U.S. Department of Agriculture provides direct payments to private landowners who agree to place sensitive wetlands under permanent easements. This program can be used to fund the protection of open space and greenways within riparian corridors.

Overview of State Funding Sources

The most direct source of public-sector funding for Millington will come from state agencies. Generally, these funds are made available to local governments based on grant-in-aid formulas. The single most important key to obtaining state grant funding is for local governments to have adopted plans for greenway, bicycle, pedestrian, or trail systems in place prior to making an application for funding. Unfortunately, there is no direct correlation between any of the programs listed and a constant stream of funding for greenway or trail projects. Furthermore, all projects are funded on the basis of grant applications. Funding is based solely on need and the need has to be expressed and submitted in the form of a grant application. These programs are geared to address needs across the entire state, so all of the programs are competitive and must allocate funding with the needs of the entire state in mind.

Tennessee Parks and Greenways Foundation
http://tenngreen.org/about-us/state-park-connections/index.html

Each year the Tennessee Parks and Greenways Foundation awards approximately 25 to 30 small grants ranging from $500-$2,500 to local, regional, or statewide conservation organizations; nonprofit organizations; community volunteer groups; State Parks and Natural Areas; “Friends” groups; and city/ county agencies to help stimulate the planning, design, and development of greenway and trail projects, improvements, or enhancements.

Recipients are required to match the grant award with cash donations or in-kind contributions such as volunteer labor, donated services, or materials. This ensures funds are leveraged and respond to specific needs in the community.

Who can apply: Local, regional, or statewide conservation groups; youth groups; school clubs; community groups; state parks; city or county agencies; or parks and recreation professionals.

Grant recipients are selected by a volunteer judging panel based on the following criteria:
1. Importance of the project to creating local greenways or trails to a nearby State Park, Natural Area, or other public land.
2. Demonstrated community support for the project.
3. Extent to which the grant will result in matching funds or other support from public or private sources.
4. Capacity of the organization to complete the project; and likelihood of tangible results.

TDOT Enhancement Program
There have been a lot of improvements in our Tennessee communities since the former Federal Transportation Enhancement Program, now known as Transportation Alternatives, began providing funds to local governments in 1991. More than $287 million in grants have been distributed by the Department. The money has gone to 245 communities across the Volunteer State to build sidewalks, bike and pedestrian trails and to renovate historic train depots and other transportation related structures. The impact of some of the projects is primarily local, whereas the wildflowers grown on roadways across the state can be enjoyed annually by thousands of Tennesseans and tourists. Whether large or small, the projects serve the same purposes; improving access and providing a better quality of life for people in the state.
http://www.tdot.state.tn.us/local/grants.htm

Tennessee Department of Environment & Conservation

Land and Water Conservation Funds (LWCF) Grants
The LWCF program provides matching grants to states, and through the state to local governments and state agencies that provide recreation and parks, for the acquisition and development of public outdoor recreation areas and facilities. Recreation Educational Services administers the LWCF grants. These grants require a 50% match.

Local Park and Recreation Fund (LPRF) Grants
The Local Parks and Recreation Fund grant program was established by the General Assembly in 1991 to provide local governments with funds to purchase land for parks, natural areas, greenways and recreational facilities. The funds also may be used for development of trails and projects in parks, natural areas and greenways. All LPRF grants require a 50 percent match by the recipient. Grant recipients are selected through a scoring process with careful consideration given to the projects that met the selection criteria and expressed the greatest local recreation need.

Recreation Educational Services Grants
Recreation Educational Services is responsible for administering federal and state grant

programs to local and state governments. The Division manages the Land and Water Conservation Fund (LWCF), the Local Parks and Recreation Fund (LPRF) Grant Program, the Natural Resources Trust Fund (NRTF) and the Recreation Trails Program (RTP). The programs listed below have a match requirement and specific regulations for the applicants.

Recreation Trails Program (RTP):
The Recreational Trails Program (RTP) is a federal funded, state administered grant program. The RTP provides grant funding for land acquisition for trails, trail maintenance, trail construction, trail rehabilitation and for trail head support facilities. These funds are distributed in the form of an 80% grant with a 20% match. Local, state and federal land managing agencies are eligible to apply as well as state chartered, non-profit organizations with IRS 501 (c) (3) status that have a written agreement for trail management with an agency. All grant projects MUST be on publicly owned land.

TRIP Grant Manual and Application
The Tennessee Recreation Initiative Program (TRIP) apportions grant money to cities and counties who lack professional parks and recreational director and do not provide a comprehensive recreation delivery system in their community. These grants are a three-year commitment, $50,000 grant matched by the communities.

http://www.tn.gov/environment/recreation/recreation_grants.shtml

Overview of Local Government Funding Sources

http://www.pps.org/reference/funding-sources-for-greenway-projects/

Millington should consider creating independent, local funding sources to be used to match federal and state grants for greenway development. The following provides a list of funding options that local governments should consider for future greenway development.

Adopt-A-Trail Programs
These are typically small grant programs that fund new construction, repair/renovation, maps, trail brochures, facilities (bike racks, picnic areas, birding equipment).

Bond Referendums for Greenways
Communities across the nation have successfully placed propositions to support greenway development on local ballots. The Charlotte-Mecklenburg County, NC area passed four consecutive referendums that generated more than $3 million for greenways. Guilford County, NC passed a referendum in 1986 that appropriated $1.6 million for development of a specific greenway corridor. In Cheyenne, Wyoming, a greenway bond referendum was used to fund the first three miles of local greenways. Residents throughout the United States have consistently placed a high value on local greenway development and voted to raise their own taxes in support of greenway implementation.

Donations and Dedications
Natural Heritage Preservation Tax Credit - Land and conservation easements may be dedicated for open space, parkland, wildlife corridors and cultural resources in exchange for tax credit equal to 55% of fair market value. The State Wildlife Conservation Board administers

the program.

Greenway Funding through Local Capital Improvement Plans
Perhaps the true measure of local government commitment to greenways is a yearly appropriation for trail development in the Capital Improvements Program. In Raleigh, NC, greenways continue to be built and maintained, year after year, due to a dedicated source of annual funding (administered through the Parks and Recreation Department). In addition, the City of Raleigh's Real Estate Department has its own line item budget for greenway land acquisition.

Greenway Trust Fund
Another strategy used by several communities is the creation of a trust fund for land acquisition and facility development that is administered by a private greenway advocacy group, or by a local greenway commission. A trust fund can aid in the acquisition of large parcels of high-priority properties that may be lost if not acquired by private sector initiative. Money may be contributed to the trust fund from a variety of sources, including the municipal and county general funds, private grants, and gifts.

Impact Fees
The City can require impact fees for the acquisition and development of public parks through a Park Dedication Ordinance (PDO), where "turn-key" parks are not developed as part of large master planned residential developments; however, land acquired through this funding source is typically targeted to serve local public park needs and seldom natural and passive open space. Trails would be considered consistent with the range of active park uses targeted for local parkland acquired through this funding source. While PDO funds are commonly used to fund local parkland acquisition, funding for trail construction could be set aside in an account established for that purpose.

In-Lieu-Of Fees
As an alternative to requiring developers to dedicate on-site open space that would serve their development, some communities provide a choice of paying a front-end charge for off-site open space protection. Payment is generally a condition of development approval and recovers the cost of the off-site greenway land acquisition or the development's proportionate share of the cost of a regional parcel serving a larger area. Some communities prefer in-lieu-of fees. This alternative allows community staff to purchase land worthy of protection rather than accept marginal land that meets the quantitative requirements of a developer dedication but falls a bit short of qualitative interests.

Income tax deductions
A federal income tax deduction may be allowed when a property owner conveys land as a gift to a public agency or a non-profit organization for public purposes such as a trail or open space.

Local Private-Sector Funding
Local industries and private businesses may agree to provide support for greenway development through one or more of the following methods:

- Donations of cash to a specific greenway segment
- Donations of services by large corporations to reduce the cost of greenway implemen-

tation, including equipment and labor to construct and install elements of a specific greenway
- Reductions in the cost of materials purchased from local businesses that support greenway implementation and can supply essential products for facility development

Mandatory Exaction
When there is a crucial link to connect trail segments or a trail is identified on an adopted trails map or master plan, a mandatory exaction may be required in conjunction with a request for a discretionary development permit from the public agency. An example might be a requirement to dedicate land for the construction of a trail as a condition of approval for a Conditional Use Permit for a proposed major recreation land use. In lieu of land dedication, in some circumstances an easement can be recorded to the City to ensure public access for trail purposes

Stormwater Utility Fees
Stormwater charges are typically based on an estimate of the amount of impervious surface on a user's property. Impervious surfaces (such as rooftops and paved areas) increase both the amount and rate of stormwater runoff compared to natural conditions. Such surfaces cause runoff that directly or indirectly discharges into public storm drainage facilities and creates a need for stormwater management services. Thus, users with more impervious surface are charged more for stormwater service than users with less impervious surface.

The rates, fees, and charges collected for stormwater management services may not exceed the costs incurred to provide these services. The costs that may be recovered through the stormwater rates, fees, and charges includes any costs necessary to assure that all aspects of stormwater quality and quantity are managed in accordance with federal and state laws, regulations, and rules. Open space may be purchased with stormwater fees, if the property in question is used to mitigate floodwater or filter pollutants.

Voluntary Dedication
An individual property owner may desire to dedicate open space for preservation or a portion of their property for a trail. The City may elect to construct and maintain the trail upon acceptance of an irrevocable offer of dedication.

Volunteer Work
It is expected that many citizens will be excited about the development of a greenway corridor or a new park or canoe access point. Individual volunteers from the community can be brought together with groups of volunteers from church groups, civic groups, scout troops and environmental groups to work on greenway development on special community workdays. Volunteers can also be used for fund-raising, maintenance, and programming needs.

National Trails Fund
American Hiking Society's National Trails Fund offers "hiking trail improvement" grants to active member organizations of our Hiking Alliance. Once a year, Alliance Members have the opportunity to apply for a grant (value between $500 and $5,000) in order to improve hiking access or hiker safety on a particular trail.

American Hiking Society's National Trails Fund is the only privately funded, national grants

program dedicated solely to building and protecting hiking trails. Created in response to the growing backlog of trail maintenance projects, the National Trails Fund has helped hundreds of grassroots organizations acquire the resources needed to protect America's cherished hiking trails. To date, American Hiking Society has funded 182 trail projects by awarding over $560,000 in National Trails Fund grants.

Projects eligible for a National Trails Fund Grant:

- Those that have hikers as the primary constituency, though multipurpose human-powered trail uses are eligible.
- Those that secure trail lands, including acquisition of trails and trail corridors and the costs associated with acquiring conservation easements.
- Projects that will result in visible and substantial ease of access, improved hiker safety and/or avoidance of environmental damage. Higher preference is often given to projects with volunteer labor.
- Projects that promote constituency building surrounding specific trail projects – including volunteer recruitment and support.

http://www.americanhiking.org/national-trails-fund/

The Trust for Public Land

The Trust for Public Land works to protect the places people care about and to create close-to-home parks—particularly in and near cities, where 85 percent of Americans live. Our goal is to ensure that every child has easy access to a safe place to play in nature. We also conserve working farms, ranches, and forests; lands of historical and cultural importance; rivers, streams, coasts, and watersheds; and other special places where people can experience nature close at hand.

The Trust for Public Land helps structure, negotiate, and complete land transactions that create parks, playgrounds, and protected natural areas. We buy land from willing landowners and then transfer it to public agencies, land trusts, or other groups for permanent protection. In some instances, TPL will protect land through conservation easements, which restrict development but permit traditional uses such as farming and ranching.

Services include:

- Conservation Transactions
- Conservation Finance
- Conservation Vision
- Park Design & Development
- Conservation Tools
- Research

Chattanooga Office
202 Tremont Street
Chattanooga, Tennessee 37405
Phone: (423) 265-5229
Email: tennessee@tpl.org
http://www.tpl.org/

Rails-to-Trails Conservancy

Rails-to-Trails Conservancy is a nonprofit organization based in Washington, D.C., whose mission it is to create a nationwide network of trails from former rail lines and connecting corridors to build healthier places for healthier people. They serve as the national voice for more than 150,000 members and supporters, 19,000 miles of rail-trail throughout the country, and more than 9,000 miles of potential rail-trails waiting to be built. The main areas of their work are listed below:

- RTC advocates and influences policy at the national and state levels, making trail building

possible.
- Provides information, technical assistance and training for local trail builders.
- Leads in protecting and increasing the federal Transportation Enhancements program—the largest source of funding nationally for trail development.
- Defends the federal railbanking statute in the U.S. Congress and the courts as an essential tool to preserve unused rail corridors.
- Encourages trail use and development by providing trail access, information, maps and resources free to the public through an online trail-finder, www.TrailLink.com.

http://www.railstotrails.org/index.html

Maintenance Funding

Parks, trails and open space within the Greenway that are owned by a homeowners association (HOA) will be maintained by the HOA. Maintenance of the trails through public open space areas will be the responsibility of the City or the agency that owns the land, unless a maintenance agreement assures this differently. The City shall coordinate with individual HOA's to ensure that Greenbelt trails remain connected and that basic maintenance responsibilities continue to occur.

Greenway maintenance is essential to ensure that the system remains an asset to the community. There are few grant programs that offer grant funds for maintenance. Generally, maintenance costs are allocated through the General Fund and when there is a reduced General Fund budget, maintenance of parks and trails may suffer. Maintenance, specifically for the trail system, can be accomplished through a variety of sources in addition to maintenance provided by the public agency. Volunteer programs can provide maintenance of the trails. In order to manage a volunteer program or revenues generated for maintenance, a trail manager is necessary. The following possible sources may be used for generating maintenance revenues or used for trail maintenance:

- Advertising - outdoor shelters, benches
- Corporate Sponsorship
- Special Events - Fund rides, time trails, etc.
- Franchise Fees - Food stands, bike lockers, bike rental/repair at staging areas or parks
- User Fees – Typically the City may charge user fees paid for the use of campgrounds, active playing fields, and other day use fees. A user fee for trail usage would be difficult to collect and enforce unless each trail was gated and fenced for its entirety. However, a volunteer collection mechanism may be implemented whereby a user box is installed at various trailheads. Fees are collected via the honor system.
- Corporate Funding
- Fundraising events

References

Mid-South Regional Greenprint
http://www.midsouthgreenprint.org/

Memphis Metropolitan Planning Organization
http://memphismpo.org/plans/multi-modal-plans/bike-ped-plan

Shelby County Growth Plan Recommendations (2000)
http://shelbycountytn.gov/index.aspx?nid=398

Comprehensive Greenway Plan, Greenville County, South Carolina (2010)
http://greenvillerec.com/greenways-county-master-plan

Montgomery County Countywide Park Trails Plan Update (2008)
http://www.montgomeryparks.org/PPSD/ParkTrails/trail_planning/cwptp/cwptp_index.shtm

City of Chula Vista Greenbelt Master Plan (2003)
http://www.chulavistaca.gov/City_Services/Development_Services/Planning_Building/Planning/greenbelt.asp

Rails-to-Trails Conservancy
http://www.railstotrails.org/index.html

The Trust for Public Land
http://www.tpl.org/

National Trails Fund
http://www.americanhiking.org/national-trails-fund/

Project for Public Spaces
http://www.pps.org/reference/funding-sources-for-greenway-projects/

Tennessee Department of Environment and Conservation
http://www.tn.gov/environment/recreation/recreation_grants.shtml

Tennessee Department of Transportation
http://www.tdot.state.tn.us/local/grants.htm

Tennessee Parks and Greenways Foundation
http://tenngreen.org/about-us/state-park-connections/index.html

National Bicycling and Walking Study
http://katana.hsrc.unc.edu/cms/downloads/15-year_report.pdf