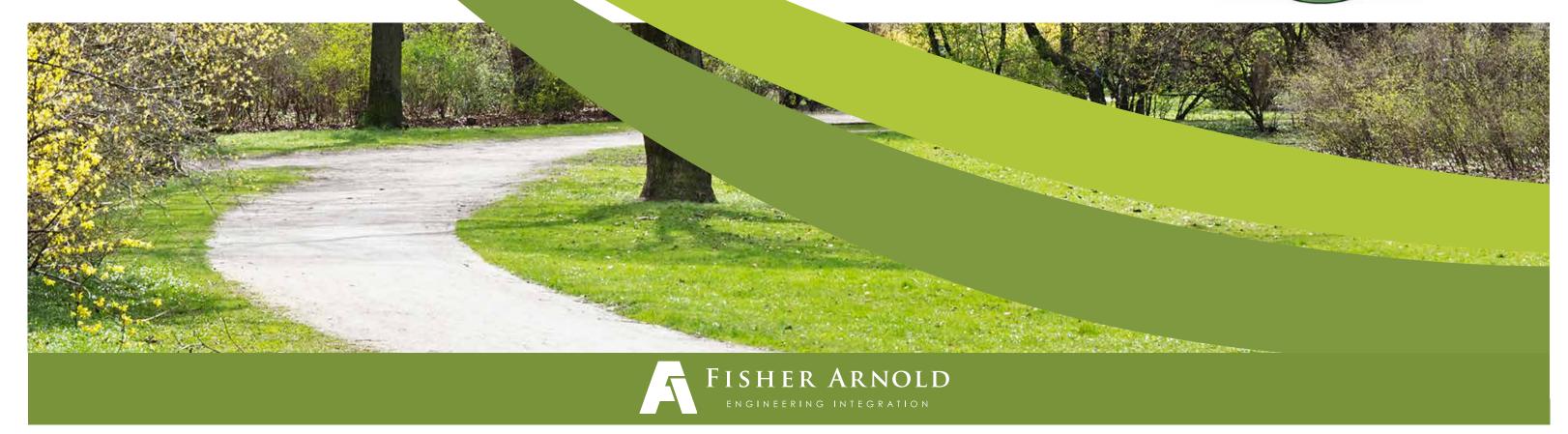


Loosahatchie River Greenway Trail Master Plan

July 7, 2014





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1.0.0 Introduction

1.1.0 Purpose of the Plan

The Loosahatchie River and its tributaries traverses 64 miles through five west Tennessee counties, including Fayette and Shelby in West Tennessee, flowing through the towns of Oakland, Galloway, and Arlington, as well as the cities of Lakeland, Bartlett, and Memphis on its way to the Mississippi River (see Figure 1, Regional Context Map). The River's open space connects these communities, forming a green corridor that offers the opportunity to introduce alternative transportation in the form of a planned greenway trail system.

In support of this concept, and through a separate process, the Town of Arlington's 2010 Land Development Plan identified the river and its floodway as areas to be preserved as open space for active and passive recreation. The River has also been identified as a greenway corridor on the Mid-South Regional Greenprint and Sustainability (Greenprint) Plan's Concept Plan, and so is part of a greater planning effort to connect communities along the River, from Fayette County to the Mississippi River, via alternative transportation routes. Several sub-planning projects were identified for furthering the Greenprint planning process, and as a result, the Town of Arlington engaged the services of Fisher & Arnold, Inc. in August of 2013 to develop the Loosahatchie River Greenway Trail (Greenway Trail) Master Plan.

Subplanning funds, including for this project, were awarded from Shelby County Government in association with the HUD Sustainable Communities Regional Planning Grant awarded to the county for the Mid-South Regional Greenprint and Sustainability Plan.

1.2.0 Greenprint Context

The Greenprint Plan embraces the six livability principles of the US Department of Housing and Urban Development (HUD):

- 1. Provide more transportation choices.

 Develop safe, reliable and economical transportation choices to decrease household transportation costs, reduce our nation's dependence on foreign oil, improve air quality, reduce greenhouse gas emissions and promote public health.
- 2. Promote equitable, affordable housing. Expand location- and energy-efficient housing choices for people of all ages, incomes, races and ethnicities to increase mobility and lower the combined cost of

housing and transportation.

- 3. Enhance economic competitiveness.
 Improve economic competitiveness through reliable and timely access to employment centers, educational opportunities, services and other basic needs by workers as well as expanded business access to markets.
- 4. Support existing communities.
 Target federal funding toward existing communities—
 through such strategies as transit-oriented, mixeduse development and land recycling—to increase
 community revitalization, improve the efficiency
 of public works investments, and safeguard rural
 landscapes.
- 5. Coordinate policies and leverage investment.
 Align federal policies and funding to remove barriers to collaboration, leverage funding and increase the accountability and effectiveness of all levels of government to plan for future growth, including making smart energy choices such as locally generated renewable energy.
- 6. Value communities and neighborhoods. Enhance the unique characteristics of all communities by investing in healthy, safe, and walkable neighborhoods—rural, urban, or suburban.

The Loosahatchie River Greenway Trail master plan incorporates the goals of the Greenprint's Parks and Greenways, Community Health and Wellness, and Housing and Neighborhood Land Use working groups, as follows:

Parks and Greenways

Developing a Greenway along the Loosahatchie River addresses the Parks and Greenways Working Group's goals by connecting multiple communities with greenspace. This initial connection, between Lakeland and Galloway through the Town of Arlington, will initiate the connection of all communities along the Loosahatchie River, forming an initial trail that will spur the development of additional connections. Such an interconnected green space will provide routes for multiple modes of transportation and access to jobs and employment centers. Additionally, there will be opportunities to preserve open areas and conservation sites.

Community Health and Wellness

Planning for a system that connects communities and



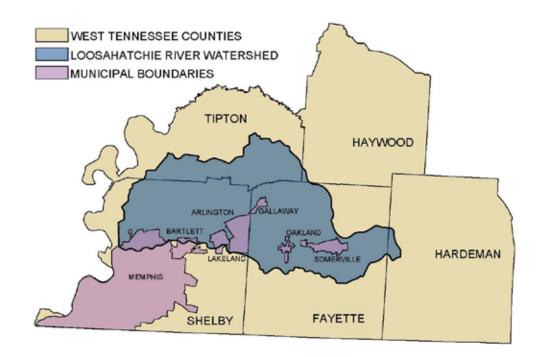


Figure 1. Regional Context Map



neighborhoods will provide a place to walk, bicycle and run, addressing the needs of users with a wide range of abilities and ages. Enabling a large population to enjoy walking or biking on a greenway trail has a positive impact on their health, and contributes positively to the region's quality of life. The Loosahatchie River Greenway Trail Master Plan identifies the connections needed to foster such a greenway trail.

The Greenway Trail will connect to the low- to moderate-income neighborhoods in Arlington, providing the residents with access to employment centers, green spaces, and affordable housing. The Greenway Trail will also connect to Arlington's historic Depot Square at the Town's center. This area is currently undergoing a period of transition, with some redevelopment occurring, and with greater opportunities available for redevelopment of the old commercial area.



2.0.0 Plan Context

The study area for this Master Plan, illustrated in Figure 2, is formed by the Arlington city limits north of Interstate 40, encompassing the Loosahatchie River Channel from the west Town boundary, through the Arlington Historic Depot Square, to the east boundary of the Town. The study area connects to several low- to moderate-income neighborhoods, traverses floodway and floodplain, and provides connections through mostly vacant properties that are anticipated to be improved in the near future. Areas around the Historic Depot Square, currently being redeveloped, are also included as part of this Master Plan, with the planning team identifying methods for bringing improvements to the Depot Square area.

While the study area for the Loosahatchie River Greenway Trail is contained within the town limits of Arlington, the potential long range impact of this trail for the greater surrounding region is significant. Due to the location of the river and the cities and neighborhoods it touches, the potential connections to existing and proposed trail networks are impressive. Ultimately, the Loosahatchie River Trail could be the conduit for connecting eastern Shelby and Fayette Counties to the Mississippi River, to Shelby Forest, and even across the Mississippi River, through the Harahan Bridge project. Its impact will indeed be far-reaching.

2.1.0 History of the project area

2.1.1 Regional context

The Town of Arlington, Tennessee is situated adjacent to the eastern border of Shelby County, and is included in the Greater Memphis Metropolitan Statistical Area (MSA). The Town is included in the boundary of the Memphis Metropolitan Planning Organization (MPO), and is coordinating its planning efforts through that organization.

The Town's residents numbered 11,517 at the latest available US Census in 2010. This represents an increase of nearly 350 percent over the 2000 US Census, with the population representing a youthful segment of Shelby County (a median age of 32.2 years, and nearly 40 percent of residents being under 20 years of age). Figure 1, Regional Context Map, illustrates the Loosahatchie River basin and the municipalities included in the MSA with connection to the Loosahatchie River.

Arlington is served by several significant vehicular transportation routes: Interstate 40, Paul Barrett Parkway (TN 385 / future Interstate 269), US Highways 64 and 70, TN Route 205 (Airline

Road), and Collierville-Arlington Road. The CSX Railroad bisects the Town in an east-west direction, separating the River Channel from most of the Town's population.

The transportation network plays a significant role in supporting numerous industrial and commercial businesses, and the Town works with the State of Tennessee and the Memphis Metropolitan Planning Organization (Memphis MPO) in planning future improvements. However, the restricted-access routes and the railroad divide the Town into several discrete segments, and effectively hinder connection between the Depot Square area of historic downtown Arlington from the southern and westernmost portions of the Town (see Figure 2, Town Map).

The Town is bordered on the north and west by major drainage ways, the Loosahatchie River and Cypress Creek Drainage Canal, respectively. The historic Depot Square area, which straddles the railroad, is located in fairly close proximity to the Loosahatchie River Channel.

2.1.2 Loosahatchie River and Loosahatchie River Channel

The Loosahatchie River at one time was a tributary of the Wolf River. Today, it is the shortest river in West Tennessee, having been separated from the Wolf River prior to 1913 and subsequently channelized to enhance agriculture activities. It is unfortunate that the river is technically no longer a river at all, but functions solely as a drainage canal. However, traces of the original river meanders still exist, both north and south of the canal, offering the opportunity to educate trail visitors about river hydrology and the ecological, economic, and cultural impacts of river channelization.

The river, or more properly, the channel, is characterized by erodible banks which require ongoing maintenance (and funding) for stability. The surrounding land is composed of fine, silty, poorly draining soils of moderate fertility, typical of bottomlands and floodplains. Some of the impacts created by channelization of the river include loss of habitat for wildlife, including aquatic, reptiles, birds and mammals, as well as the loss of scenic value. While the original portion of the river and its meanders retain moderate value with regard to scenic qualities, they are considered excellent fisheries and retain value for recreational boating and fishing. The channel, on the other hand, offers more limited recreational and scenic values. Although channelization originally impacted the region through loss of natural habitat and its effects on recreation opportunities, the introduction of the Loosahatchie River Greenway Trail could assist in habitat restoration and the return of recreational opportunities to the channel area. Lessons can be learned regarding the benefits and liabilities associated with channelizing streams and rivers, and the introduction of riverine



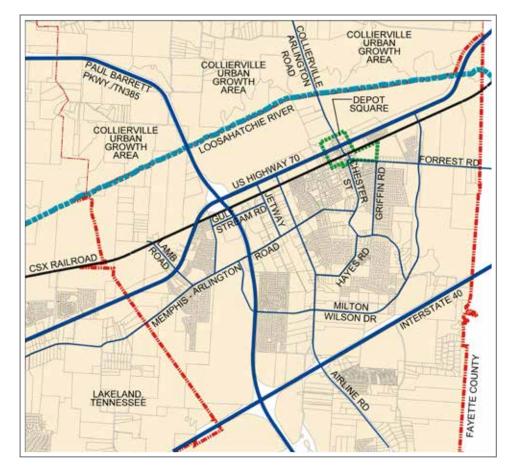






Figure 2. Town Map



trails along both the Loosahatchie River Channel and its original meanders can offer significant benefits, educating today's visitors about the River's history.

Although channelization improved bottomland soils well enough to improve the agricultural value of land in proximity to the Loosahatchie River, the River regularly overflows the channelized banks, flooding a significant land area, as seen in Figure 3, Floodway, Floodplain, and Drainage Ways on the next page. Of particular interest are the original river meanders, south of the channel and west of Paul Barrett Parkway as well as north of the channel, surrounding Collierville-Arlington Road. The Cypress Creek Drainage Canal forms a major tributary to the Loosahatchie River Channel, and its meanders also can be seen in the exhibit, along with drainage ways which can be seen reaching well into the Town proper. This exhibit clearly illustrates the powerful influence of the Loosahatchie River, despite its channelization.

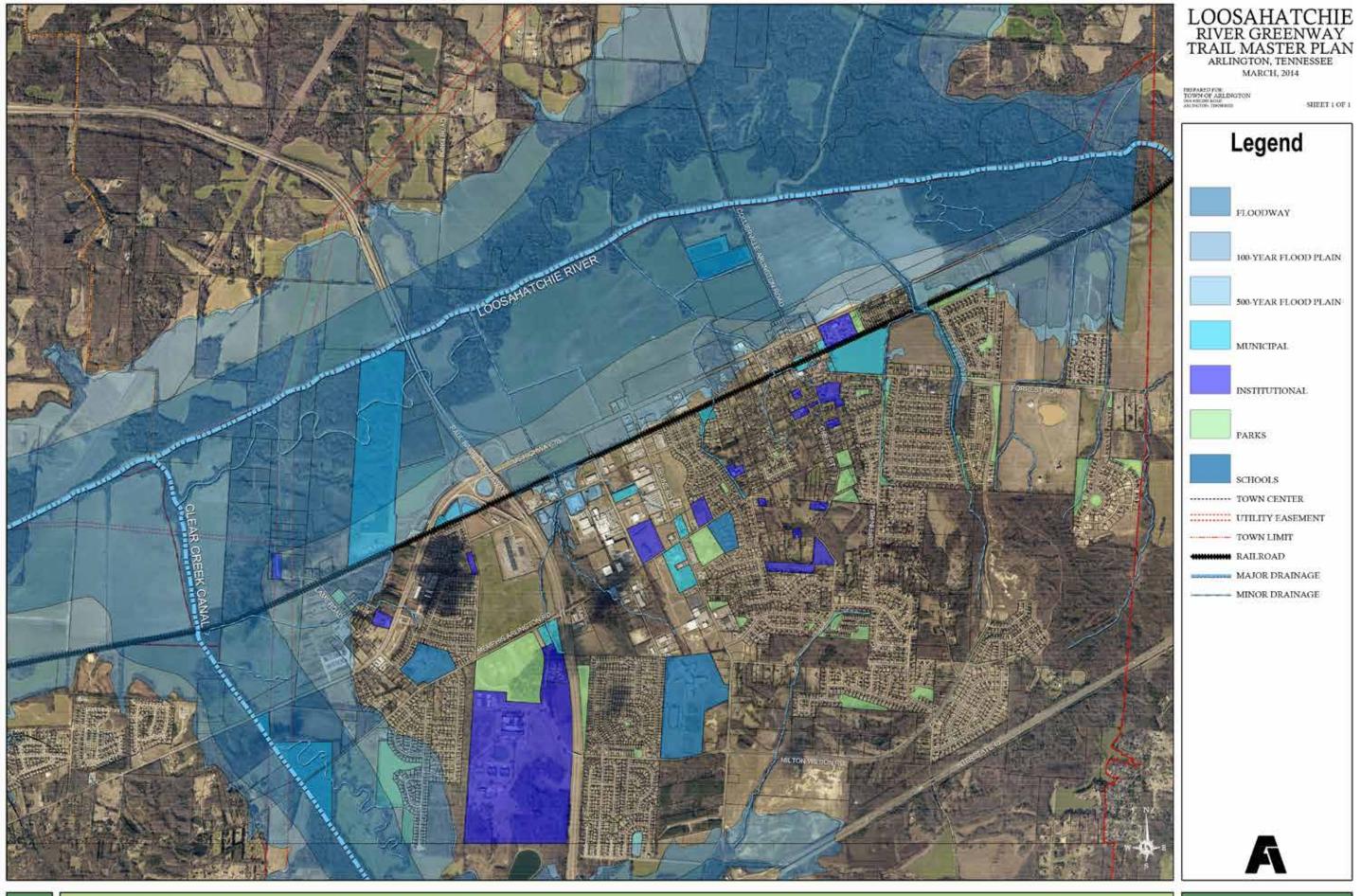
2.1.3 Town of Arlington

The Town of Arlington itself has a rich history, dating back to the 1830's. Originally named Haysville after the original landowner (Samuel Jackson Hays, a descendant of President Andrew Jackson), it became a stopping point on the Memphis and Ohio railroad. During that time, Withe Depot was the name of the station in the Town, and the Town also came to be known as Withe. In 1883 the name was changed to Arlington, after the famous cemetery in Washington, DC.

The Arlington Historic District (Depot Square) was established in 1982, and is bounded by Brown, Campbell, Chester, Quintard, Greenlee, and Walker Streets (see location of Depot Square area in Figure 2, Town Map). Historic buildings found in the Depot Square area include the Blacksmith Shop, which houses one of the last remaining active blacksmiths operating in the state (and where demonstrations are offered periodically), the Rachel H. K. Burrow Museum, formerly the town bank, then library, and currently home to memorabilia and historic items, and the Historic Post Office, dating back to 1900.

Other historic sites in Town include Arlington Cemetery, bounded by Hayes and Chester Streets, which dates back to 1909 and contains approximately 10 acres of land. It is identified by a historical marker, as is the Arlington Tennessee Veteran's Memorial, located just north of the cemetery, at Hughes-College Hill Park (see Figure 5, Community Asset plan).





2.2.0 History of Trail Development

2.2.1 Early trails

The history of trails in America is long and fascinating. From cattle trails and pioneer trails to modern-day bicycle paths, trails have been an important, if basic, option for getting from Point A to Point B. Trails provide important connections among homes, offices, retail centers, and schools, and serve additional regional community needs through environmental conservation and alternative transportation planning.

There are all sorts of trails. Some, such as the Appalachian Trail, are destinations in their own right, where the experiences found in traversing its length draws nearly 3 million visitors in any given year. Other trails, having a sole focus on exercise, may be completely contained within a local park. Some trails are segregated, intended for a single group of users (hikers, bikers, or equestrians), with varying levels of accessibility associated with each type. One thing they have in common, though, is that they are separated from vehicular traffic and provide the means for improving health through alternative transportation. Even so, trails require interconnectedness with other modes of transportation for greatest success.

2.2.2 Benefits of trails

Alternative transportation relies upon convenience and opportunity for optimum use. If trail facilities are not conveniently located or do not provide a great degree of interconnectivity, they are less likely to be well utilized. In more highly urbanized areas, sidewalks and bike lanes form the basic structure of a successful alternative transportation system. In areas less suitable for development, such as flood-prone areas, trails offer an alternative option.

In addition to providing opportunities for health and recreation, trails can also provide enhanced cultural awareness and community identity. Trails follow abandoned railway routes or integrate historic structures as part of the trail head design in order to imbue local character in their design. Their installation near impacted streams can assist in mitigating erosion, create improved habitat areas for native flora and fauna, and/or provide protection from flood damage through improved erosion control measures. The zone which surrounds trails that follow streams or rivers can extend riparian buffer areas, offering habitat for migratory birds as well as other wetland plant and animal species.

In addition, the introduction of a trail system can generate economic activity and provide perceived and actual increased

value for property in close proximity to the trails. Easily accessed trails located near centers of dense population which connect with retail centers or sites of environmental significance can offer distinct benefits, capitalizing on the unique local community character in their design and capturing the greatest economic benefit by attracting visitors to the community.

This Loosahatchie River Greenway Trail Master Plan provides the planning tool for the Town of Arlington to create such a trail, not only for its own population, but also for the surrounding municipalities and the greater regional community.



3.0.0 The Design Process

3.1.0 Overview

The master planning process began with collection of the available information, much of which was provided by the Town of Arlington. The planning team worked with the Town's executive committee throughout the design process. The committee members represented a wide cross-section of the community, including Aldermen, and members of the Town's planning and parks department. A full list of participants is provided in Appendix 7.1, Meeting Minutes.

The planning team collected existing data related to greenway trail development: aerial photography, topography, floodway and floodplain data, soils, property boundaries, land use (existing and proposed), and transportation systems. This information is contained in a series of maps provided in Section 3, The Design Process.

The planning team utilized this information, along with site observation, to analyze the natural and man-made systems in the project area and to identify the opportunities and constraints for development of the greenway trail system. This information provided the basis of discussion for the first planning presentation, the site analysis phase (see Figure 7, Project Area Analysis plan). Discussion of the analysis plan's elements provided valuable guidance for the level of connectivity and potential locations for the trail linkage routes.

Two concept plans were then developed by the planning team, with Concept Plan A (Figure 8) focusing primarily on providing trails along the Loosahatchie River Channel and interface with the existing bicycle and pedestrian network, while Concept Plan B (Figure 9) expanded the range of connectivity, expanding the system north to the original Loosahatchie River meander and south to Donelson Elementary School and centers of residential development. Areas for conservation and education were also explored in the latter concept.

Presentations were made not only to the committee, but also as a series of meetings in low- to moderate-income neighborhoods to gain valuable community response regarding the proposed master plan elements. The guidance received during these meetings was utilized in developing the Master Greenway Plan (Figure 10) and Phasing Plan (Figure 11).

3.2.0 Goals and Objectives

The following were identified as goals and objectives for development of the Loosahatchie River Greenway Trail Master

3.2.1 Goal 1 - Interconnect with surrounding region.

Connect surrounding communities, within and outside the Town of Arlington, and the region through a system of interconnected trails, open spaces, and community assets, especially along the Loosahatchie River Channel.

Objectives: 1.

- . Identify points of connection for Lakeland and points west.
- 2. Identify points of connection for Hickory Withe, Gallaway and points east.
- 3. Identify points of connection for areas of Arlington south of Interstate 40.

3.2.2 Goal 2 - Provide recreational amenity.

Provide opportunities for recreation, fitness, and alternative transportation through trails that connect with existing or planned trail systems.

Objectives: 1.

- 1. Identify routes which provide interconnection with existing populated areas of the Town.
- 2. Ensure that the Town's proposed trail systems interface with trails proposed by surrounding communities.

3.2.3 Goal 3 - Capitalize on scenic beauty.

Maximize the scenic quality and recreational value of the river channel with new facilities and enhancements.

Objective: 1.

- 1. Identify areas of scenic beauty in and around the Town of Arlington which should be preserved and / or enhanced.
- 2. Identify activities and related facilities which serve to maximize the scenic characteristics of land surrounding the water channels.

3.2.4 Goal 4 - Build upon existing facility network.

Build upon the assets and infrastructure that currently exist or are already planned within the community.

Objectives: 1.

Identify improvements that are needed for existing sidewalks and bikeways so that they can be integrated into the proposed overall trail system.



- 2. Identify minimum requirements for new trail system so that adequate facilities are provided as new development occurs.
- 3. Include the recommended standards of the Arlington Depot Square Master Plan.

3.2.5 Goal 5 - Promote local heritage.

Celebrate and preserve the unique cultural and natural assets along the river corridor and within the Town of Arlington, such as Depot Square.

Objectives: 1. Identify the historic, cultural, and natural sites of Arlington.

2. Identify locations for the trail which provide interconnections among these sites.

3.2.6 Goal 6 - Provide economic benefit.

Create an economic asset for the community by promoting development and redevelopment opportunities that will attract new businesses and create new jobs.

Objectives: 1. Identify sites or areas which can serve as an economic focus for the trail system.

2. Ensure that adequate interconnection is provided at existing employment centers, to maximize potential use of the trail system.

3.2.7 Goal 7 - Enhance water quality.

Protect water quality by preserving natural areas that provide wildlife habitat and help manage storm water.

Objectives: 1.

- Identify methods for stabilizing and improving the edges of the banks of the major drainage systems in the Town.
- 2. Identify methods for constructing the trail that promote low impact development.
- 3. Identify trail features that can serve to improve wildlife habitats.

3.2.8 Goal 8 - Provide educational opportunities.

Provide educational opportunities that allow residents to learn about the history of the Loosahatchie River, and about the flora and fauna found there.

Objectives: 1.

- l. Identify areas of unique natural features which represent the characteristics of the Loosahatchie River prior to its channelization.
- 2. Incorporate facilities in close proximity to these natural features, as interpretive centers whose purpose is to provide educational opportunities related to riverine systems and

the impacts of channelizing.

Introduce these facilities in accessible locations, interconnected with the remaining portions of the overall trail system.

3.2.9 Goal 9 - Promote inclusivity.

Provide opportunities for persons of all ages, economic groups and abilities for recreation and alternative modes of transportation through the strategic location and design of trails, infrastructure and amenities.

Objectives: 1.

Identify methods by which the trail system can be made inclusive, being accessible from all neighborhoods and for all physically challenged persons.

3.3.0 Inventory and Analysis

The project team assembled the collected data and evaluated characteristics of the Town related to greenway trail development, including the following: natural systems (water, soils, and vegetative cover); circulation patterns (vehicular, railroad, bicycle, and pedestrian); cultural assets (historical, cultural, economic); and current and future land use (public, institutional, commercial, industrial, residential). Each of these is summarized in the following sections, which provide an inventory of existing conditions followed by analysis. The Project Area Analysis Plan is found in Figure 7.

3.3.1 Natural Systems

A. Water

The channelized Loosahatchie River floods on a regular basis, exceeding the river's flood stage at Arlington on at least 7 occasions during the past 30 years. The floodway occupies a significant portion of the land between the Town and the River (see Figure 3, Floodways, Floodplains and Drainage Ways map), consisting primarily of agricultural land with some wooded areas. Much of this land is owned by a commercial sod grower, maintained as active fields for harvesting operations and bisected by major drainage ways. Visible on this map are some of the original meanders of the Loosahatchie River, which form excellent representations for natural riverine systems.

Development requiring placement of fill material to raise the elevation of a property is not permitted within the floodway, so properties contained within this area will be retained as open or forested land in perpetuity. Fill material is permitted in the floodplains, however, and such development is evident in the residential areas on the west edge of Town (Arlington Trace



Planned Development, as an example). Those lands are more valuable for potential development, and so are less available as potential routes for the greenway trail system.

The intersection of US Highway 70 and Airline Road is becoming a commercial retail center, with several businesses already in operation and several additional phases approved for development. A significant amount of land area north of this intersection is available for development, located outside the floodway.

B. Soils

Soils in the floodway and floodplain area are composed of loam and silt-loam soils characterized by frequent flooding and erosion. The floodway and floodplain areas are nearly level silt loam soils. Much of upland areas of Town are characterized by moderate to severely erodible soils. The River channel and the meander west of TN 385 are characterized by moderately eroded silt loam soils. The banks are in need of stabilization, which should be addressed with development of the trail along those segments.

C. Vegetative Cover

Much of the remaining stands of forest cover are located in the bottom land near the Loosahatchie River Drainage Canal. Most of the arable land has been cleared for cultivation. Some stands remain in the vicinity of the River's original meanders, and these may offer unique opportunities for introducing interpretive facilities, providing instruction regarding the River's history, including indigenous flora and fauna.

3.3.2 Circulation Patterns

A. Vehicular Circulation

As noted in Section 2.1.1, Regional Context, significant vehicular transportation routes divide the Town of Arlington into several areas, effectively separated from the standpoint of bicycle and pedestrian circulation (see Figure 4, Existing Circulation Plan). The CSX Railroad right-of-way is not available to provide facilities for a shared use trail, and Interstate 40 and TN 385 are limited-access freeways. US Highway 70 serves as access ramps to TN 385 and is also is considered off-limits to bicyclists and pedestrians in that location.

The Town's six discrete land areas are greatly in need of improved interconnectedness with regard to alternative transportation. The underpass at Gulf Stream Road is a feasible location for a shared use path, with adequate clearance provided on the south side

of the roadway. This two-lane collector roadway's lower speed limit and limited length make it an ideal candidate for location of the trail. A second roadway, Memphis-Arlington Road, also offers a location for crossing under TN 385, although clearances are somewhat less, especially on the north side of the roadway.

Future connection of a greenway trail system south of Interstate 40 is very limited. The overpass at Airline Road is an interchange with inadequate bridge width available for safe separation of traffics. The underpass at Collierville-Arlington Road also is of inadequate width, requiring significant improvements to add shared use paths between the existing steep slopes and bridge structural supports. These roadways are currently utilized by bicyclists, who would benefit from safer crossings of Interstate 40.

B. Railroad Circulation

The CSX Railroad is a significant challenge for an interconnected greenway trail system. The right-of-way is unavailable for the introduction of a shared use path, with inadequate clearances evident at bridge abutments at roadway overpasses. Even if permission for introducing a trail could be obtained from the railroad (not anticipated), inadequate clearances preclude those locations for a greenway trail within the railroad right-of-way. There is one exception to this, on the south side of the railroad, beneath US 70. Utilizing an existing utility easement on private property along Arlington Downs, additional easements for access as required, and improvements that would include retaining walls, the trail could be introduced in this location.

There is one location where the trail could cross beneath the railroad tracks, at the Cypress Creek Drainage Canal. Additional detailed information is needed to confirm this location's suitability, but clearances appear adequate for introducing the trail in this location.

At-grade crossings of the railroad track are inadequate for pedestrian or bicycle use in two locations: Lamb Road and Gerber Road. Warning lights and barrier arms are provided at the following locations, although no facilities are provided for pedestrians or bicycle traffic: Jetway Avenue, Greenlee Street, and Chester Street. Excellent crossings are provided at the following locations, including signal lights and arms with sidewalks (although separate bicycle lanes are not provided): Airline Road and Milton Wilson Boulevard.

C. Bicycle Circulation

Completely separate bicycle and pedestrian facilities are being introduced with construction of Milton Wilson Road, with



signalization and clearly marked crosswalks enhancing all traffics on that roadway. Signed and marked bicycle lanes are provided on each side of the road in the newer sections, while sidewalks are provided along both sides of its full length. When complete, this roadway will form a major spine of the Town's alternative transportation system, connecting Airline Road to US Highway 70 through densely populated neighborhoods. Segments of the road through the Kensington and Maple Grove planned developments do not include separate, marked bicycle lanes. If adequate pavement width is available, pavement striping and accompanying symbols or text should be provided to maintain continuity and improved safety for the bike lanes. At a minimum, "bike route" or "share the road" signs should be provided. Existing sidewalk and bikeway facilities are also illustrated on the Existing Circulation Plan.

One route currently used by bicyclists is Collierville-Arlington Road, which is hazardous in the area near the Interstate 40 underpass. This location is quite narrow, with the support columns for the roadway not permitting the introduction of a bike lane for safety. The north terminus of this road is Milton Wilson Drive, with its system of bike lanes. This interconnection invites use of Collierville-Arlington Road by cyclists. Improvements are needed to provide increased safety for bicyclists, possibly through the introduction of shared use paths outside the vehicular traveled way, outside the Interstate 40 support columns.

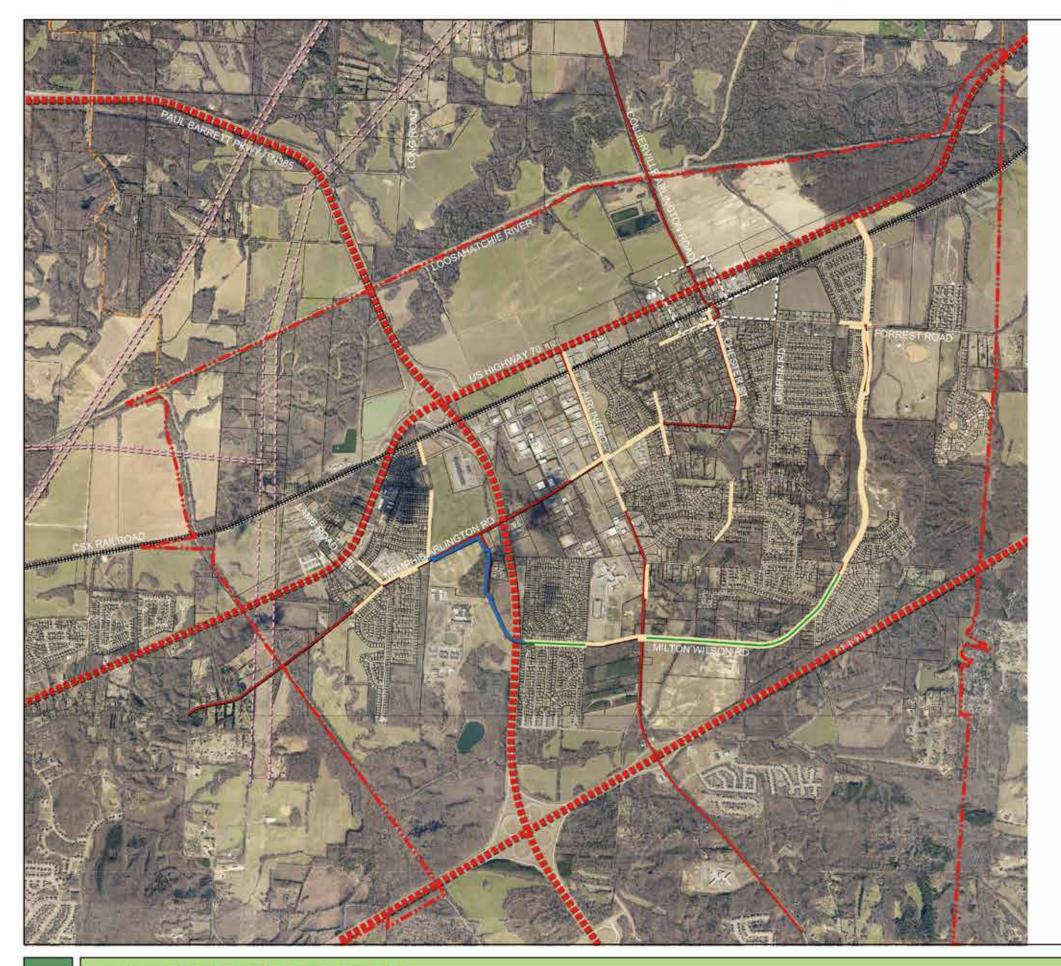
D. Pedestrian / Shared Use Circulation

Although much of the older areas of Town lack pedestrian facilities, new developments are required to install sidewalks when properties are improved, and the Depot Square area recently received renovations, including improved pedestrian facilities (special sidewalk and crosswalk pavements, handicap ramps, and paved or planted bump-outs to help define parking areas).

Other locations that offer adequate pedestrian safety include the intersections of US Highway 70 with Airline Road and Milton Wilson Boulevard. These intersections are signalized and well-marked, although safety may be improved through the introduction of special pavements.

Much of the existing infrastructure of older sidewalks is in need of repair or replacement. A detailed inventory of existing sidewalks with regard to condition and accessibility was beyond the scope of this study. However, such an exercise would be beneficial for identifying specific improvements needed to establish a fully interconnected trail system. Such an inventory is recommended as part of the future planning for specific segments of the Loosahatchie River Greenway Trail system.





LOOSAHATCHIE RIVER GREENWAY TRAIL MASTER PLAN ARLINGTON, TENNESSEE MARCH, 2014

SHEET LOF L

Legend

TOWN CENTER

COURT UTILITY EASEMENT

---- TOWN LIMIT

+++++ RAILROAD

180000 MAJOR ROADWAY MINOR ROADWAY

EXISTING TRAIL

EXISTING BIKEWAY

EXISTING SIDEWALK

3.3.3 Land Use

Successful greenway trails maximize interconnections between origin and destination sites. Areas of dense residential, industrial, retail and office development provide logical connectivity points for trail planning. In addition, greenways utilize utility and other easement areas through agreements, maximizing the benefits of these land areas.

Publicly-owned land offers the opportunity for development of support facilities for the greenway trail. Parcels of such land, whether vacant, partially developed, or fully developed, were evaluated for potential use as trailhead or interpretive facilities. In addition, easement areas for utilities were identified and evaluated for potential use as greenway corridors (see Figure 5, Community Asset Plan).

Land utilized for churches and other institutional purposes can be utilized as trail heads through agreements with the land owners. Parking areas for these facilities are generally adequately sized to permit this use, and so these land uses were identified as potential trail head sites. Vacant property in proximity to natural features, especially those in the floodway or floodplain, were evaluated with regard to potential access routes for the trail system.

Nodes of concentrated office, retail and residential activity were identified, in support of the six livability principles noted earlier. Densely populated residential areas, commercial centers, and the historic district should be interconnected by the proposed trail system, and so were identified through the analysis process.

3.3.4 Community Assets

Community assets are publicly-owned properties, including parks, schools, utilities, and vacant land which would be available for immediate inclusion in trail development (see Figure 5, Community Asset Plan). They also include privately-owned institutional properties, such as churches, which contain large parking lots or undeveloped land, portions of which also could be incorporated into the future trail system.

A. Parks

The Town of Arlington has seven public parks, summarized here and illustrated on the Community Asset Plan.

 Mary Alice Neighborhood Park. Located adjacent to Mary Alice Drive, this park earned the Town an "Excellence in Site Reuse" award in 2009 from the Environmental Protection Agency (EPA). The property was formerly the Arlington Blending & Packaging Superfund site, reclaimed as a municipal park through the combined efforts of the EPA and the Arlington community. It contains a walking trail, half basketball court, and playground equipment.

- Doctor Logan Neighborhood Park. Located on Airline Road, the park contains a basketball court, walking trails, and playground.
- 3. Arlington Sports Complex. This complex offers community athletic fields, including large soccer fields, youth soccer fields, and a dedicated football field, along with parking facilities. A shared use path connects the park with Milton Wilson Drive and its system of bikeways and sidewalks. It also lies directly north of a large parcel of land owned by the State of Tennessee which contains a significant amount of undeveloped and naturally woodlands.
- 4. Hughes-College Hill Park. Located on Chester Street near downtown Arlington, Hughes-College Hill Park features a walking track with fitness stations, a community gazebo, and amphitheater. The park is home to the Playground of Dreams and the Veteran's Memorial which honors Arlington residents who served in past wars. This culturally significant and centrally located park is located just down the street from Arlington Cemetery, founded in 1909.
- 5. Douglass Street Community Park. This park contains several playing fields, including three Little League playing fields and six shared football fields. It is located directly adjacent to Arlington Elementary School, and is the site for the newly constructed Arlington Community Safe Room.
- 6. Village of Arlington Park. This neighborhood park is convenient to the residents of the Village of Arlington subdivision, and offers walkways and open space.
- 7. Dixon Robinson Neighborhood Park. This neighborhood park is located adjacent to the Casa subdivision and offers a playground, pavilion, picnic tables, benches, water fountains and walking trails.
- 8. Future Forrest Street Park. A new park is in the planning stages, which will include athletic fields, picnic facilities, an amphitheater, and walking trails.



The amenities provided in this area would also function as a greenway trail head facility.

Most of these parks are connected to their surrounding residential developments, but are not linked to other community areas by sidewalk, bikeway or trail system. Ideally, the proposed trail system would include interconnectivity with all municipal parks for optimum access and utilization.

B. Schools

Three public schools are located within the study area: Arlington Elementary, Middle, and High Schools. Donelson Elementary School is located on Airline Road, south of Interstate 40. Extensions of the proposed trail system ideally would interconnect all the Town's schools.

C. Culturally Significant Sites

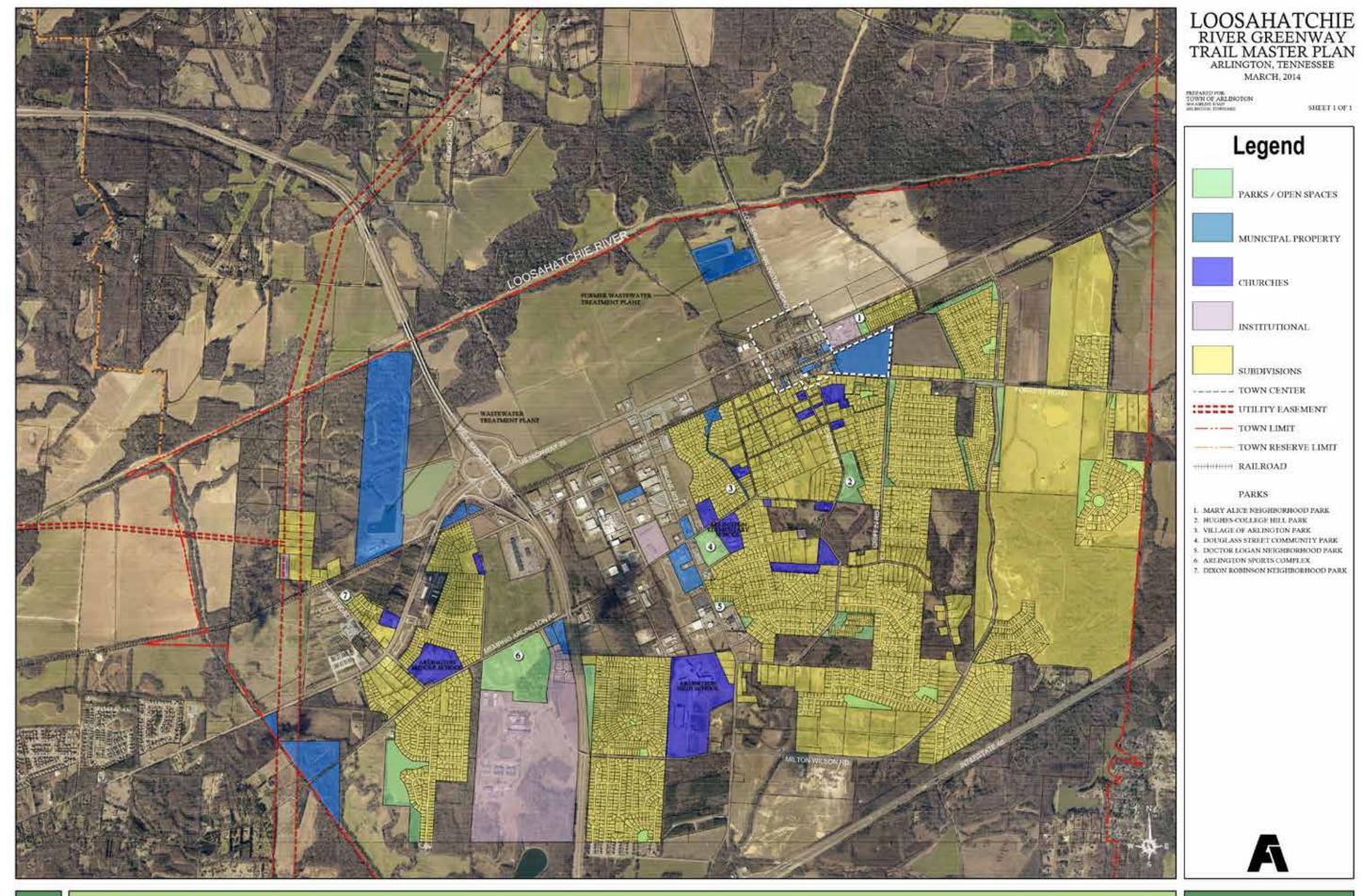
The Town of Arlington is home to many culturally and historically significant sites, which are identified in Section 2.1.3, Town of Arlington, as well as in Figure 2, Town Map.

D. Utilities and Vacant Land

Publicly-owned land utilized for utilities include the former wastewater treatment plant on Collierville-Arlington Road, and the current facility located on US Highway 70, just west of TN 385. Significant vacant parcels are located east of the Arlington Sports Complex, in the Depot Square area, and at the west edge of Town on either side of Memphis-Arlington Road. All of these sites offer the opportunity to introduce the trail and associated support facilities.

The former Town of Arlington solid waste disposal site, located on the north side of Chester Street (east of Snyder Plantation), was evaluated as a potential future park facility, which would necessitate linkage with the future greenway trail system. This landfill property was closed approximately 20 years ago, burdened with development restrictions that limit its use to open space or recreation activities. For this reason, the property was evaluated with regard to potential development as a Town park, similar to the construction of Mary Alice Neighborhood Park, which preserves the integrity of that sensitive site. However, it was determined that development restrictions are set to expire within 10 years, which makes the property more attractive as future residential or other private development than as a Town park facility.





SHEET LOF 1

Legend

CHURCHES

INSTITUTIONAL

SUBDIVISIONS

PARKS

PARKS / OPEN SPACES

MUNICIPAL PROPERTY

3.3.5 Project Area Analysis Plan

A. Natural Systems Analysis

The Loosahatchie River Channel offers the Town of Arlington the opportunity to introduce its greenway trail in a unique, naturalized area. The floodway area's agricultural use, the channelized character of the River, and inclusion of the River's former original meanders combine to offer a unique and informative experience to future trail users. Major trail heads could be introduced in the more natural areas of the meanders to the east and west, functioning as primary anchors for the greenway trail system. Linkage along the channel could be provided along the edges of wooded areas remaining in the agricultural fields, providing views to the channel as well as direct contact with the original meanders. Maintaining the connecting trail between these anchors at the woodland edges would cause the least disruption to agricultural activities while lending a rural character to the greenway trail system.

The Cypress Creek Drainage Canal borders the Town on its western boundary, another example of channelization of a natural drainage way. This channel connects the Loosahatchie River Channel to a vacant Town-owned parcel on Memphis-Arlington Road, offering an opportunity to introduce a trail head facility at the west edge of Town. A tributary of the Cypress Creek Drainage Canal extends eastward, through the State of Tennessee land parcel, under TN 385 and Airline Road, and beneath Interstate 40, offering exceptional opportunities for connection among several of the Town's separated land areas.

B. Circulation Pattern Analysis

The Circulation Analysis Plan (see Figure 6) identifies locations where future trails could cross over or under vehicular or CSX Railroad routes, and illustrates locations unsuitable for introduction of the trail. Enhanced roadway intersections are recommended wherever the trail is introduced, and in certain instances to improve existing intersections which meet minimal safety requirements. Intersections of drainage ways with vehicular circulation routes would be as underpasses, as would the intersections with the railroad.

Significant intersections which would benefit from enhancement elements include US Highway 70 at Collierville-Arlington Road (signalization, sidewalks with ramps, crosswalk pavement, signage), US Highway 70 at Airline Road (special crosswalk pavement), and Milton Wilson Road at Airline Road (special crosswalk pavement). Enhancements are recommended at all intersections, including accessibility, pavement markings and signage (see Section 5.0.0, Design Standards, for more detailed recommendations).

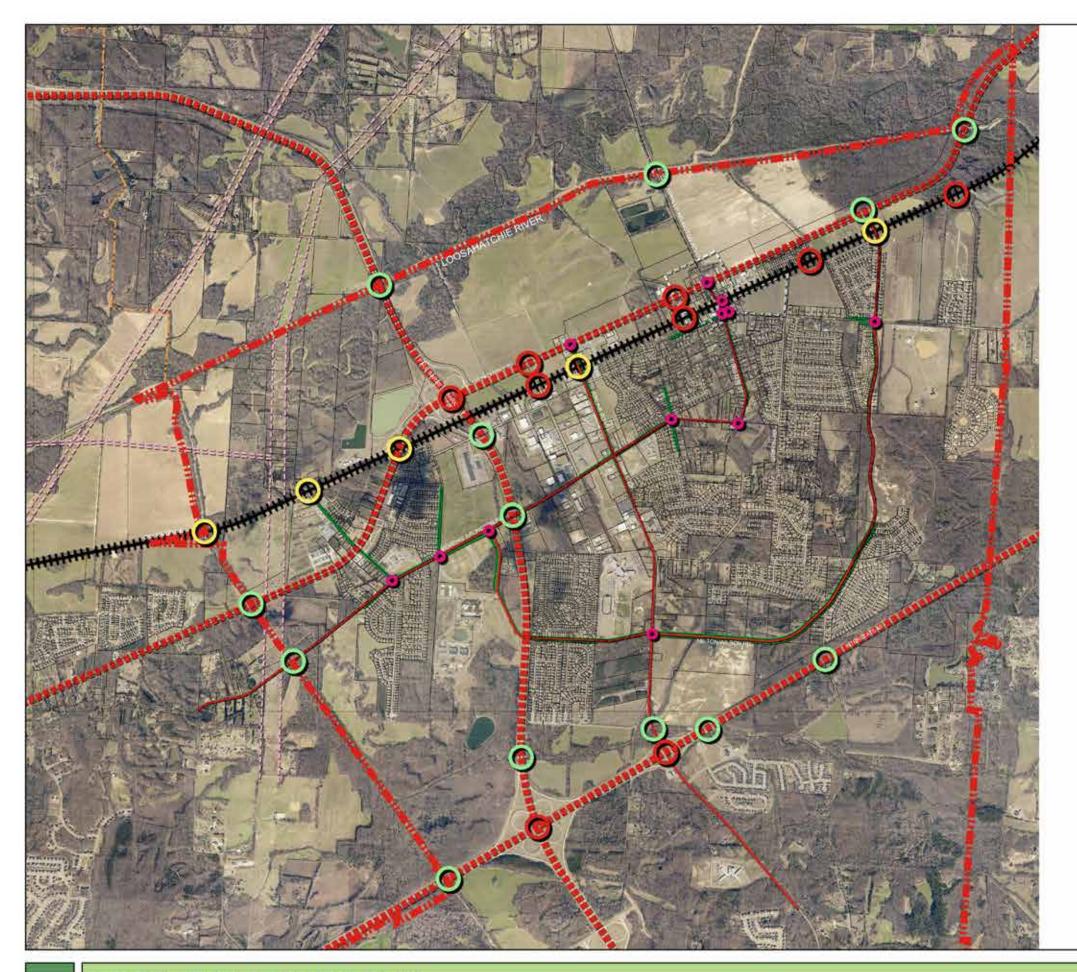
The railroad crossing at Chester Street should be improved to provide enhanced bicycle and pedestrian safety, ideally with shared use paths in both directions, or at least with sidewalks on both sides of the street. Additional safety signs would be needed with the introduction of new facilities, and supplemental crossing gates may be considered for sidewalks located outside the existing vehicular barrier gates.

Off-road pedestrian (and bicycle) circulation is possible in existing utility easement areas and along drainage routes not otherwise suitable for development. These greenway access routes are also illustrated on the Existing Circulation Plan.

C. Land Use and Community Asset Analysis

The proposed greenway trail ideally would provide linkage among all the Town's historically and culturally significant sites in order to enhance awareness of these community assets. Emphasizing the unique historical attributes of this area through inclusion with an integrated greenway system, while providing linkage to parks, schools, and residential and employment nodes could enhance the area economically, potentially attracting visitors from surrounding communities while serving the alternative transportation needs of the Arlington community.





LOOSAHATCHIE RIVER GREENWAY TRAIL MASTER PLAN ARLINGTON, TENNESSEE MARCH, 2014

PREPARED FOR TOWN OF ARLINGTON SEASE DE BOAD ALDWOON, DEPONDER

SHEET LOF I

Legend

---- TOWN CENTER

THE UTILITY EASEMENT

TOWN LIMIT

+++++ RAILROAD

18888 MAJOR ROADWAY

- MINOR ROADWAY EXISTING TRAIL / WALK

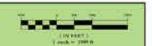
PREFERRED RAILROAD CROSSING LOCATION

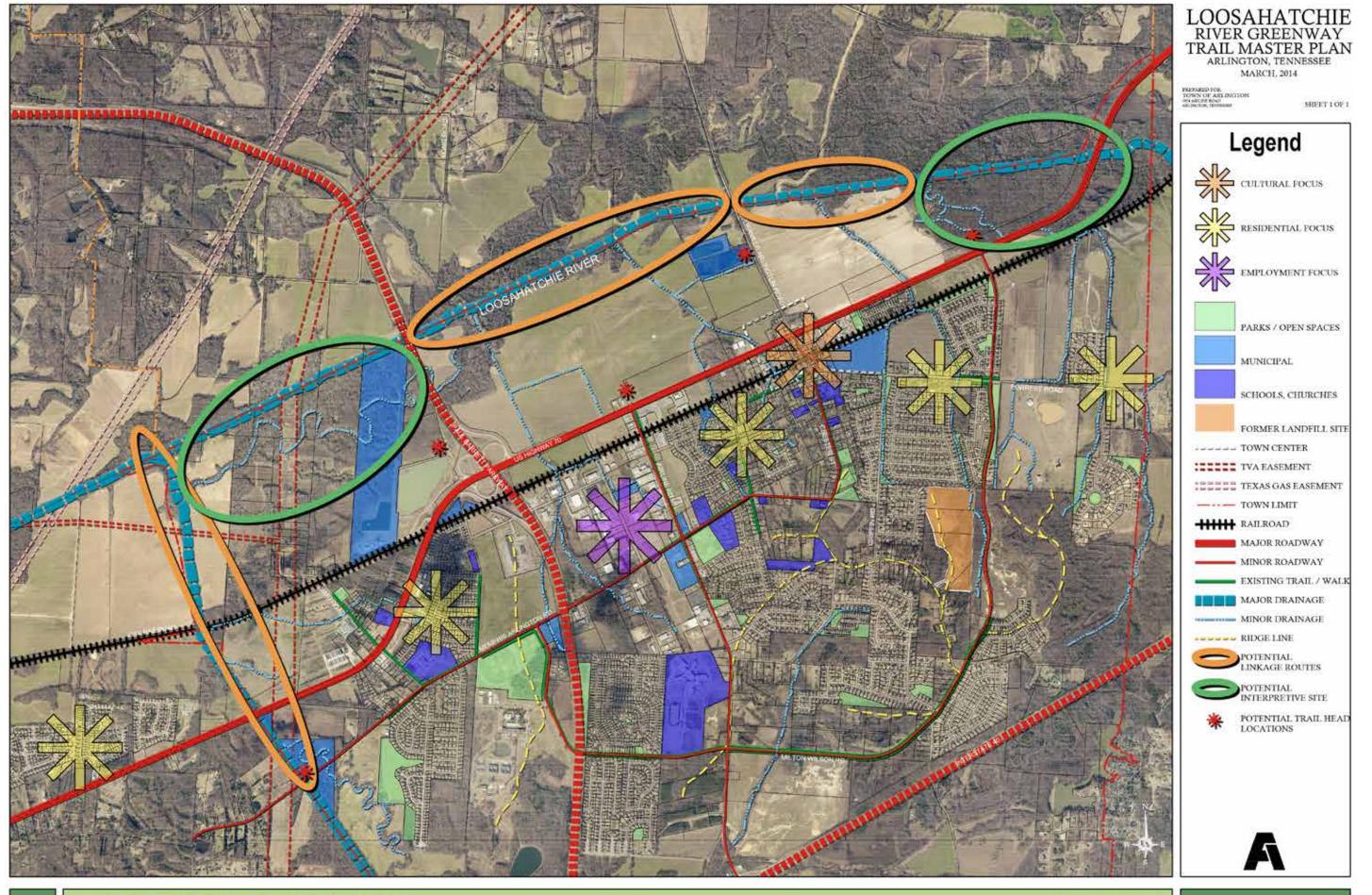
PREFERRED VEHICULAR INTERSECTIONS

TRAIL INTERSECTIONS NOT RECOMMENDED

INTERSECTION IMPROVEMENTS NEEDED







3.4.0 Conceptual Design

Two concept plans were developed, both of which create a looped system that builds upon the existing bikeway and pedestrian circulation systems established on Milton Wilson Drive, and provides significant linkages along the Loosahatchie River Channel. Details of the two concepts are summarized in the following sections.

3.4.1 Concept Plan A

Concept Plan A is illustrated in Figure 8. The exhibit illustrates the proposed shared use paths, sidewalks, and bikeways for the Loosahatchie River Greenway Trail. All suggested improvements are located north of Interstate 40, and provide linkage with all the Town's parks, culturally significant sites, residential neighborhoods, employment centers, and commercial areas.

Trail heads, which provide highly visible nodes for the greenway trail, are suggested in three locations: at the west edge of Town, on publicly-owned land north of Memphis-Arlington Road, at the former wastewater treatment facility on Collierville-Arlington Road, and near the east edge of Town, on the north side of US Highway 70 at the intersection of Milton Wilson Boulevard. These three key areas provide clear entry points to the Loosahatchie River Trail in close proximity to the River's channel, and their interconnection with shared-use trails provides a backbone of offroad trail development.

Other shared use paths could be introduced along the Cypress Creek Drainage Canal (passing beneath the CSX Railroad, US Highway 70, and Memphis-Arlington Road) and one of its tributaries, Hall Creek. This path could utilize portions of stateowned land, pass beneath TN 385 and Airline Road, and terminate at Milton Wilson Boulevard, creating a complete loop trail around the north half of the Town of Arlington.

Secondary routes and intersection improvement locations are also illustrated, building upon the existing framework of sidewalks and shared use paths. The system shown on Concept Plan A provides complete interconnectedness among all the parks, historic and cultural sites, and other community facilities noted in this plan.

3.4.2 Concept Plan B

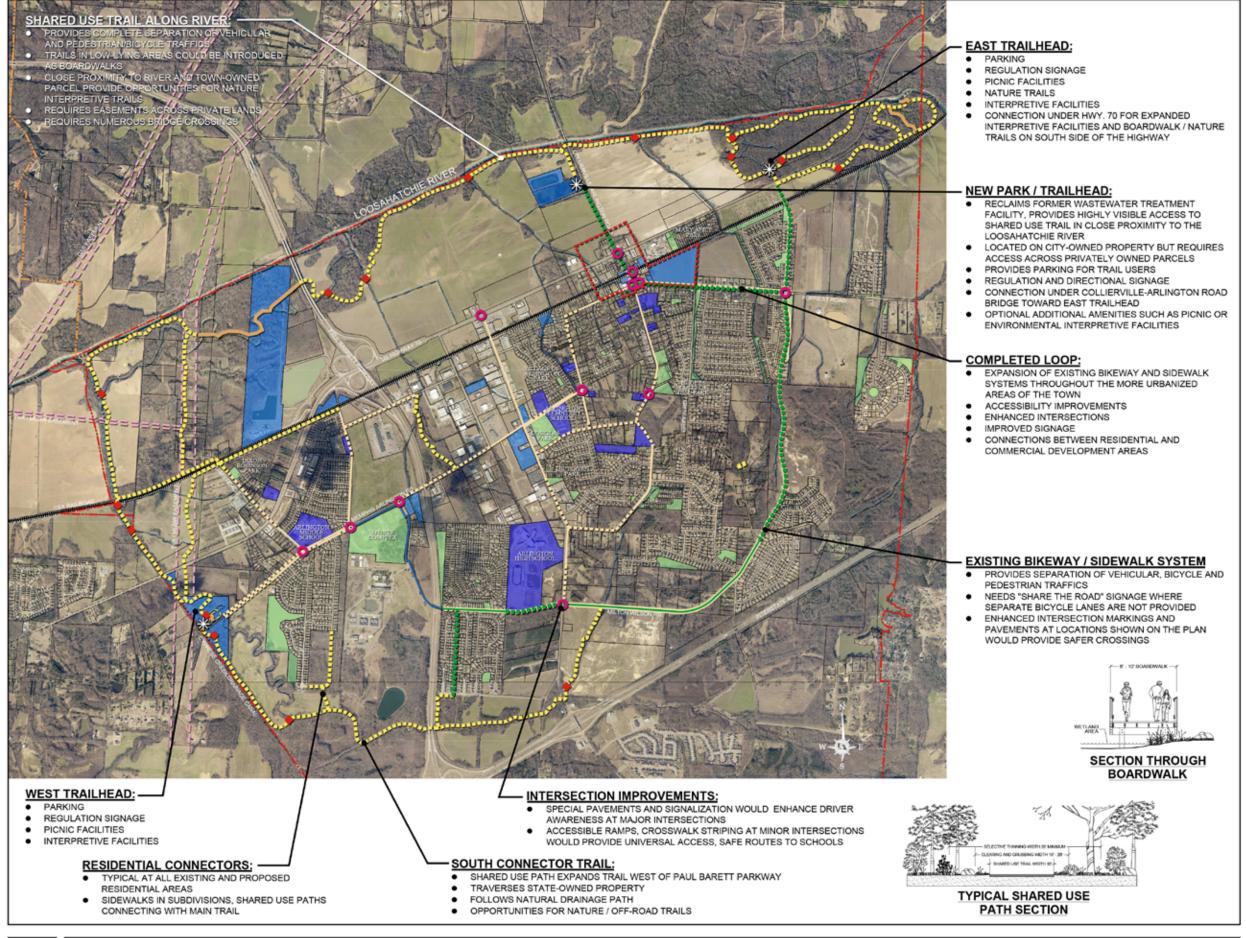
Concept Plan B is illustrated in Figure 9. The exhibit also illustrates the proposed shared use paths, sidewalks, and bikeways for the Loosahatchie River Greenway Trail. Most improvements are located north of Interstate 40, provide linkages similar to Concept Plan A, but this version indicates extension of the trail system into

adjoining communities, north of the Loosahatchie River Channel, and south of Interstate 40. An additional trail head is suggested at the north terminus of Airline Road, central to the river loop portion of the trail system, in the form of a small parking area, signage, and support site furnishings. This prominent location would provide good visibility for the trail. Connections would be made to the trail via the existing drainage routes.

Another important element of this version of the plan is the connections under Interstate 40. One extension of the trail system, following the Cypress Creek Drainage Canal and Hall Creek, could extend southward, to a trail head on a Town-owned parcel at the terminus of Arlington Trail (Southwest Connector). This trail head could serve of the Town of Arlington community south of Interstate 40, including Donelson Elementary School. A secondary connection could be made by extending the Cypress Creek Drainage Canal under Interstate 40, along agricultural property at the drainage canal (Cypress Creek Connector). A third connection could be provided along Collierville-Arlington Road, preferably through the use of a new shared use path, or at a minimum by introducing "share the road" and/or bike route signage for enhanced safety.

Secondary routes and intersection improvement locations also build upon the existing framework of sidewalks and shared use paths on this plan. Interconnectedness among all the parks, historic and cultural sites, and other community facilities are provided by this plan, as are connections beyond the boundaries of the Town of Arlington.





LOOSAHATCHIE RIVER GREENWAY TRAIL MASTER PLAN ARLINGTON, TENNESSEE

MARCH, 2014

PREPARED FOR: TOWN OF ARLINGTON 994 ABLINE ROAD ALLINGTON, TIMMESINE

SHEET 1 OF 1



PARKS / OPEN SPACES

MUNICIPAL



SCHOOLS, CHURCHES

TOWN CENTER

TTTT UTILITY EASEMENT

---- TOWN LIMIT -HHHHH RAILROAD

---- MAJOR DRAINAGE

MINOR DRAINAGE

TRAIL COMPONENTS

EXISTING BIKEWAY

PROPOSED BIKEWAY EXISTING SIDEWALK

PROPOSED SIDEWALK

PROPOSED SHARED USE PATH

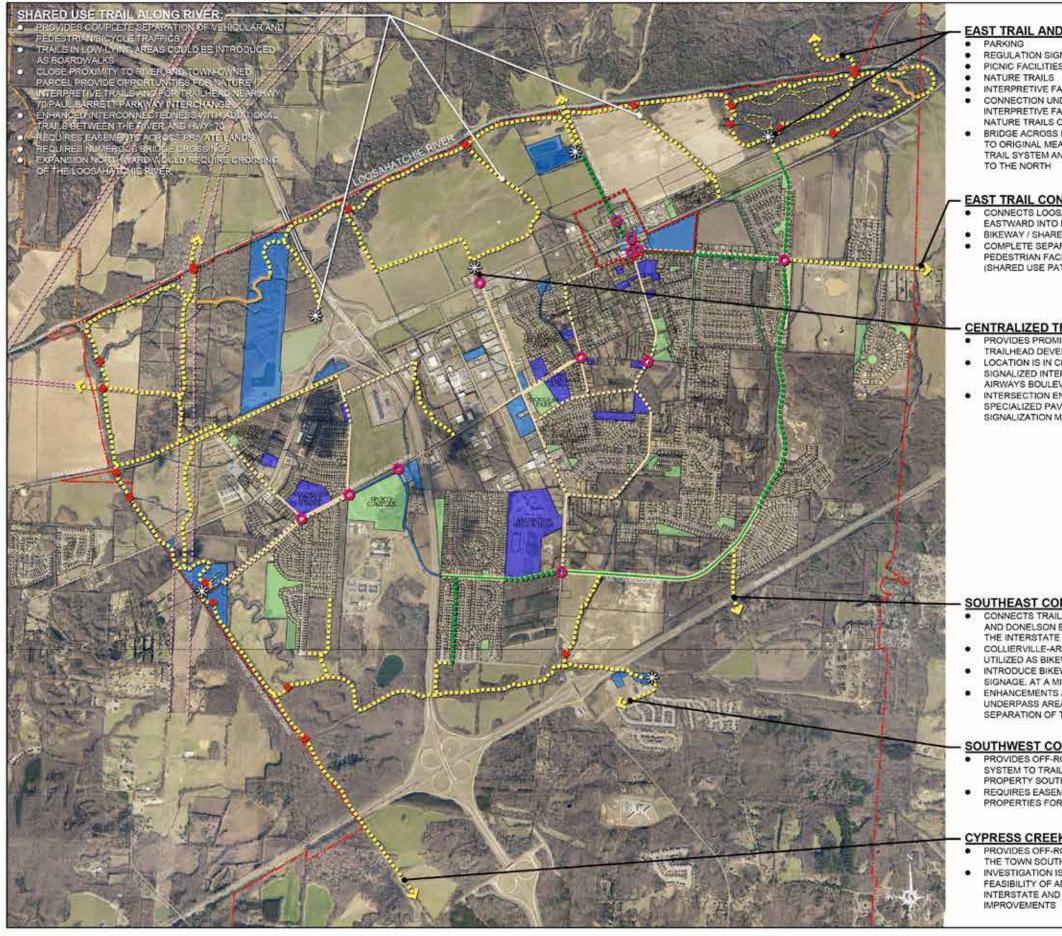
PROPOSED BOARDWALK



PROPOSED TRAIL HEAD



PROPOSED INTERSECTION IMPROVEMENTS



EAST TRAIL AND TRAILHEAD:

- REGULATION SIGNAGE
- PICNIC FACILITIES
- NATURE TRAILS
- INTERPRETIVE FACILITIES
- CONNECTION UNDER HWY. 70 FOR EXPANDED INTERPRETIVE FACILITIES AND BOARDWALK / NATURE TRAILS ON SOUTH SIDE OF THE HIGHWAY
- BRIDGE ACROSS LOOSAHATCHIE RIVER CONNECTS TO ORIGINAL MEANDER OF THE RIVER, EXPANDING TRAIL SYSTEM AND INTERPRETIVE OPPORTUNITIES TO THE NORTH

EAST TRAIL CONNECTOR:

- CONNECTS LOOSAHATCHIE TRAIL SYSTEM EASTWARD INTO FAYETTE COUNTY
- BIKEWAY / SHARE THE ROAD SIGNAGE AT A MINIMUM
- COMPLETE SEPARATION OF BICYCLE AND PEDESTRIAN FACILITIES FROM VEHICULAR TRAFFIC (SHARED USE PATHS) WHERE FEASIBLE

CENTRALIZED TRAILHEAD:

- PROVIDES PROMINENT LOCATION FOR MAIN TRAILHEAD DEVELOPMENT
- LOCATION IS IN CLOSE PROXIMITY TO RIVER AND SIGNALIZED INTERSECTION OF US HIGHWAY 70 AND AIRWAYS BOULEVARD
- INTERSECTION ENHANCEMENTS, INCLUDING SPECIALIZED PAVEMENTS, SIGNAGE AND SIGNALIZATION MODIFICATIONS ARE RECOMMENDED

SOUTHEAST CONNECTOR:

- CONNECTS TRAIL SYSTEM TO RESIDENTIAL AREAS AND DONELSON ELEMENTARY SCHOOL, SOUTH OF
- COLLIERVILLE-ARLINGTON ROAD IS ALREADY UTILIZED AS BIKEWAY
- INTRODUCE BIKEWAY SIGNS OR "SHARE THE ROAD" SIGNAGE, AT A MINIMUM
- ENHANCEMENTS ARE NEEDED AT INTERSTATE 40 UNDERPASS AREA TO IMPROVE SAFETY. SEPARATION OF TRAFFICS

SOUTHWEST CONNECTOR:

- PROVIDES OFF-ROAD CONNECTION OF THE TRAIL SYSTEM TO TRAIL HEAD ON TOWN-OWNED PROPERTY SOUTH OF THE INTERSTATE
- REQUIRES EASEMENT THROUGH PRIVATELY-HELD PROPERTIES FOR INTERCONNECTION

CYPRESS CREEK CONNECTOR:

- PROVIDES OFF-ROAD CONNECTION TO AREAS OF THE TOWN SOUTH OF THE INTERSTATE
- INVESTIGATION IS REQUIRED TO DETERMINE FEASIBILITY OF ADEQUATE CLEARANCE UNDER THE INTERSTATE AND EXTENT OF NEEDED **IMPROVEMENTS**

LOOSAHATCHIE RIVER GREENWAY TRAIL MASTER PLAN

ARLINGTON, TENNESSEE MARCH, 2014

PREPARED FOR.
TOWN OF ARLENGTON
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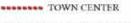
Legend



MUNICIPAL



SCHOOLS, CHURCHES



UTILITY EASEMENT TOWN LIMIT

+HHHHH RAILROAD

---- MAJOR DRAINAGE

- MINOR DRAINAGE

TRAIL COMPONENTS

EXISTING BIKEWAY

********* PROPOSED BIKEWAY

PROPOSED SIDEWALK

EXISTING SIDEWALK

EXISTING SHARED USE PATH

PROPOSED SHARED USE PATH

PROPOSED BOARDWALK

PROPOSED BRIDGE

→ PROPOSED TRAIL HEAD



PROPOSED INTERSECTION IMPROVEMENTS



3.5.0 Master Plan Development

The two concept plans were presented to the Executive Committee, with each element of the plan discussed. Several decisions were reached, including the following:

- 1. Concept Plan B was selected as the preferred option.
- 2. The former landfill site will no longer be a consideration as a future park site.
- 3. Additional trail segments are needed on the north and south sides of the railroad, from Depot Square to Mary Alice Park.
- 4. An additional trail segment is needed, from Greenlee Street to the Kroger grocery store property, on the north side of the railroad track.

The Master Plan was developed utilizing Concept B as the basis and the above comments for guidance, illustrated in Figure 10, Master Greenway Plan. Full descriptions of the plan elements are provided in Section 4.0.0, Master Plan.

3.6.0 Phasing Plan

Discussion of the master plan elements also included establishing a priority for the first segment of the trail system. The Phasing Plan is illustrated in Figure 11, Phasing Plan. Four phases of development have been identified for the first segment of the Loosahatchie Greenway Trail, which is to extend along the river channel, from the Paul Barrett Parkway Trail Head to the Milton Wilson Boulevard Trail Head. This segment will optimize use of the channel's natural features, and include interpretive facilities that enhance environmental awareness.

3.7.0 Design Standards

The initial phases of trail system development will set the tone for the remainder of the greenway system, and will provide a definitive beginning and ending point for this initial phase of the greenway trail. Design standards have been developed to establish the design intent and minimum standards for the various trail elements, including accessibility, signage, fencing, and site furnishings. Standards have been defined for the various trail types (natural paths, hard surfaced trails, boardwalks, and bridges), including minimum dimensions for trail width, clearances, and vegetative clearing requirements. This guidance is provided in Section 6.0.0, Design Standards.



4.0.0 Master Plan

The following paragraphs summarize the elements of the proposed trail system, illustrated on the next page, in Figure 10.

4.1.0 Trail heads

A total of six trail heads are proposed, including one south of Interstate 40. Three are proposed on Town-owned property, and two on privately-owned land. The trail heads are intended to serve not only the local community, but visitors to the community as well. The trail heads will provide the following amenities: parking spaces, regulatory signs (trail rules, hours of operation, trail length and slope description, etc.), directional signs, and litter receptacles at a minimum. Major trail heads could also include other amenities such as picnic tables; interpretive signs and trails to supplement the main greenway trail; pavilion shelters; and drinking fountains for sites with close access to public utilities. The following sections provide descriptions of the trail heads proposed for the greenway.

A. Milton Wilson Boulevard Trail Head

This trail head would be located on private property at a heavily wooded natural area on the north side of US Highway 70 at the intersection of Milton Wilson Boulevard. In addition to the basic trail head elements, it should provide interpretive amenities, including nature trails through the wooded area and alongside the Loosahatchie River Channel. Facilities could extend beneath US Highway 70 to include the heavily wooded area between the highway and the CSX Railroad. This location offers an exciting gateway for the greenway trail system, and should include as many as 30 parking spaces to accommodate Town residents as well as visitors.

B. Collierville-Arlington Road Trail Head

This trail head offers another opportunity to provide environmental education, this time as it relates to wastewater treatment facility land reclamation. Its close proximity to the Loosahatchie River Channel also offers an opportunity to provide instruction related to river channelization and its impact upon the surrounding land areas. Reclamation of this site as a trail head would build upon the Town's role of environmental stewardship, begun with reclamation of the Mary Alice Park former superfund site. The property is currently owned by the Town. Parking will be limited to 10 to 12 spaces, as the site is located in the floodway and fill is not permitted for construction activities.

Improvements to the intersection of Collierville-Arlington Road with US Highway 70 should accompany development of this trail

head to improve safety for pedestrians and bicyclists visiting the facility, including sidewalks with bump-outs, signalization, signage, and special crosswalk pavement.

C. Airline Road Trail Head

This trail head, located at the intersection of Airline Road with US Highway 70 offers yet another highly visible yet easily accessible location for the introduction of a trail head. This trail head would offer not only the basic amenities, but would also include recommendations for improving the intersection as part of trail head development. Parking for up to 20 spaces should be provided to accommodate residents and visitors.

D. Paul Barrett Parkway Trail Head

This trail head would be in close proximity to the Town's current wastewater treatment facility, and could offer educational opportunities related to the wastewater treatment process itself. Nature trails, boardwalks, and interpretive facilities would be additional amenities for this location. This trail head would be accessed from US Highway 70 and is in close proximity to the River. It should provide from 15 to 20 parking spaces.

E. Memphis-Arlington Road Trail Head

This trail head would provide a western gateway to the Town's greenway trail system and is located on Town-owned property. It offers the opportunity to introduce nature and interpretive trails and signage, with swampy areas providing another unique habitat for exploration. This trail head would provide direct connection to the segment of the trail that borders the Cypress Creek Drainage Canal. Picnic facilities could be considered for the trail head location, with parking for up to 20 visitors.

F. Hall Creek Trail Head

This trail head would be located on Town-owned property bordered by Hall Creek, although it would require an ingressegress easement or other arrangement with a private land owner for access. This trail head would serve the Town's community south of Interstate 40 and could include picnic and interpretive facilities in addition to the basic amenities. Parking should be provided to accommodate up to 30 visitors at this location.

4.2.0 Trail Linkages

Various options exist for connecting the proposed greenway trail system with the trail heads and with the existing sidewalk and bikeway infrastructure of the Town. Two primary types are



proposed, described in the following paragraphs.

A. Primary connectors

Connectors are proposed along the Loosahatchie River Channel, along the edges of drainage ways and tree lines on the publicly-and privately-owned properties along the channel and its main west tributary, the Cypress Creek Drainage Canal. Clearances would need to be confirmed for passage beneath several structures: at the west edge of Town under the CSX Railroad, US Highway 70, Memphis-Arlington Road, and Interstate 40; beneath US Highway 70 at the CSX Railroad; beneath TN 385, Collierville-Arlington Road and Interstate 40 at Hall Creek; and beneath TN 385, Collierville-Arlington Road and US Highway 70 at the Loosahatchie River Channel.

Other primary connectors include those linking densely populated residential areas with the trail system. Although many of the large residential developments in Town contain open parkland with walking trails, these are considered for use primarily by residents of those developments, so linkage to the greenway trail system should be limited to linking with the existing sidewalk or bikeway facilities only on the public streets in those locations.

B. Secondary connectors

Where wooded areas exist, nature trails and boardwalks are proposed for interest and education. Separate loops that connect to the primary trail could be introduced, either with trail development or during later phases.

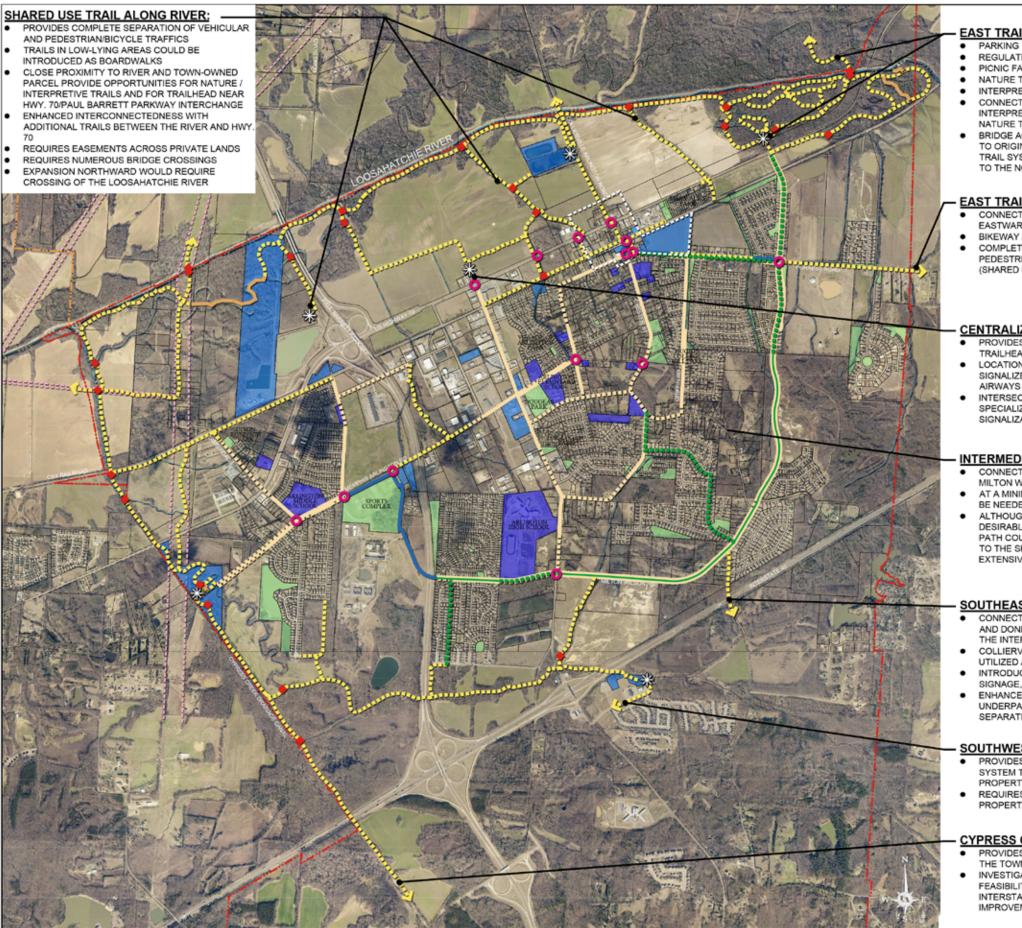
Existing utility easements are utilized as supplemental access ways, and are secondary to the primary loop system that would extend along the Loosahatchie River Channel and the Cypress Creek Drainage Canal. Although utility easements will be beneficial as secondary trails, they should not be considered as primary locations, as the high voltage electrical lines can pose hazards to individuals with pacemakers or who are particularly sensitive to these areas.

4.3.0 Support Improvements

As noted previously, interconnectedness will be the key to success for the new greenway trail system. The interconnectedness of this system will be reliant upon the existing sidewalk and bicycle lane infrastructure for much of its success. Accessibility, condition, safety, and completeness of existing facilities will affect utilization of the trail system. Improving the existing infrastructure of sidewalks, bike lanes, and intersections will play a key role in establishing a complete trail system.

Comprehensive accessibility and integration of the greenway trail system with the sidewalk and bikeways throughout the Town are necessary for establishing a well-utilized alternative transportation system. The sidewalk and bikeway inventory procedure mentioned previously will provide documentation of the extent and condition of the existing system, and improvements to the existing infrastructure are recommended as part of the implementation process for the greenway trail system. The master plan illustrates areas where sidewalks are lacking and intersections are in need of improvement for enhanced user safety, but does not identify support improvements (accessible ramps, walk repairs, etc.) needed for existing facilities. This master plan recommends that a program for identifying deficiencies of the existing infrastructure be initiated and funding sought to make the improvements needed for a comprehensive alternative transportation system.





EAST TRAIL AND TRAILHEAD:

- REGULATION SIGNAGE
- PICNIC FACILITIES
- NATURE TRAILS
- INTERPRETIVE FACILITIES
- CONNECTION UNDER HWY. 70 FOR EXPANDED INTERPRETIVE FACILITIES AND BOARDWALK / NATURE TRAILS ON SOUTH SIDE OF THE HIGHWAY
- BRIDGE ACROSS LOOSAHATCHIE RIVER CONNECTS TO ORIGINAL MEANDER OF THE RIVER, EXPANDING TRAIL SYSTEM AND INTERPRETIVE OPPORTUNITIES TO THE NORTH

EAST TRAIL CONNECTOR:

- CONNECTS LOOSAHATCHIE TRAIL SYSTEM EASTWARD INTO FAYETTE COUNTY
- BIKEWAY / SHARE THE ROAD SIGNAGE AT A MINIMUM
- COMPLETE SEPARATION OF BICYCLE AND PEDESTRIAN FACILITIES FROM VEHICULAR TRAFFIC (SHARED USE PATHS) WHERE FEASIBLE

CENTRALIZED TRAILHEAD:

- PROVIDES PROMINENT LOCATION FOR MAIN TRAILHEAD DEVELOPMENT
 - LOCATION IS IN CLOSE PROXIMITY TO RIVER AND SIGNALIZED INTERSECTION OF US HIGHWAY 70 AND AIRWAYS BOULEVARD
- INTERSECTION ENHANCEMENTS, INCLUDING SPECIALIZED PAVEMENTS, SIGNAGE AND SIGNALIZATION MODIFICATIONS ARE RECOMMENDED

INTERMEDIATE LINKAGE:

- CONNECTION BETWEEN CHESTER STREET AND MILTON WILSON ROAD
- AT A MINIMUM, "SHARE THE ROAD" SIGNAGE WOULD BE NEEDED
- ALTHOUGH PEDESTRIAN CONNECTION IS DESIRABLE, THE INTRODUCTION OF A SHARED USE PATH COULD REQUIRE SIGNIFICANT IMPROVEMENTS TO THE SHOULDERS OF THE ROADWAY AND / OR EXTENSIVE DRAINAGE IMPROVEMENTS

SOUTHEAST CONNECTOR:

- CONNECTS TRAIL SYSTEM TO RESIDENTIAL AREAS AND DONELSON ELEMENTARY SCHOOL, SOUTH OF THE INTERSTATE
- COLLIERVILLE-ARLINGTON ROAD IS ALREADY UTILIZED AS BIKEWAY
- INTRODUCE BIKEWAY SIGNS OR "SHARE THE ROAD" SIGNAGE, AT A MINIMUM
- ENHANCEMENTS ARE NEEDED AT INTERSTATE 40 UNDERPASS AREA TO IMPROVE SAFETY, SEPARATION OF TRAFFICS

SOUTHWEST CONNECTOR:

- PROVIDES OFF-ROAD CONNECTION OF THE TRAIL SYSTEM TO TRAIL HEAD ON TOWN-OWNED PROPERTY SOUTH OF THE INTERSTATE
- REQUIRES EASEMENT THROUGH PRIVATELY-HELD PROPERTIES FOR INTERCONNECTION

CYPRESS CREEK CONNECTOR:

- PROVIDES OFF-ROAD CONNECTION TO AREAS OF THE TOWN SOUTH OF THE INTERSTATE
- INVESTIGATION IS REQUIRED TO DETERMINE FEASIBILITY OF ADEQUATE CLEARANCE UNDER THE INTERSTATE AND EXTENT OF NEEDED IMPROVEMENTS

LOOSAHATCHIE RIVER GREENWAY TRAIL MASTER PLAN

ARLINGTON, TENNESSEE MAY, 2014

SHEET 1 OF 1

Legend



MUNICIPAL



SCHOOLS, CHURCHES

TOWN CENTER

UTILITY EASEMENT TOWN LIMIT

++++++++ RAILROAD

MAJOR DRAINAGE

MINOR DRAINAGE

TRAIL COMPONENTS

EXISTING BIKEWAY

PROPOSED BIKEWAY

EXISTING SIDEWALK PROPOSED SIDEWALK

EXISTING SHARED USE PATH

PROPOSED SHARED USE PATH

PROPOSED BOARDWALK

PROPOSED BRIDGE

→ PROPOSED TRAIL HEAD



PROPOSED INTERSECTION IMPROVEMENTS



5.0.0 Phasing Plan

The Town's Executive Committee determined that the greenway trail along the Loosahatchie River Channel should be the primary focus for initial development of the system, and four phases have been identified for initiating construction of the trail (see Figure 11, next page).

5.1.0 Phase I: Environmental Awareness Trail Heads

Phase I consists of introducing the two trailheads on Townowned property. These locations offer immediate potential for development and are in close proximity to the Loosahatchie River Channel. The

Paul Barrett Parkway Trail Head could be developed with boardwalk and interpretive facilities, which could extend onto adjacent properties, through arrangement with the owners of those parcels. The added benefit of interpretive facilities would enhance the attraction of this facility, which essentially will serve as the initial gateway to the greenway trail system. The Collierville-Arlington Road / US Highway 70 intersection, as noted previously, should be improved with pedestrian safety measures as part of the introduction of this trail head. Its interpretive facilities will also serve to attract users, and will reinforce the character of environmental awareness for the greenway trail system.

5.2.0 Phase II: The River Connection

Phase II consists of linking the two trailheads together, following the course of the Loosahatchie River Channel. The trail would utilize several bridges where major drainage routes intersect with the River, and would pass beneath Paul Barrett Parkway. Given the location of this trail in the floodway directly adjacent to the River, this section of the greenway trail may consist mostly of elevated boardwalks. Stabilization of the channel is recommended as part of this trail section's development. The trail should follow the channel closely, so as to disturb agricultural activities as little as possible.

5.3.0 Phase III: The Loosahatchie River Trail Head and Nature Park

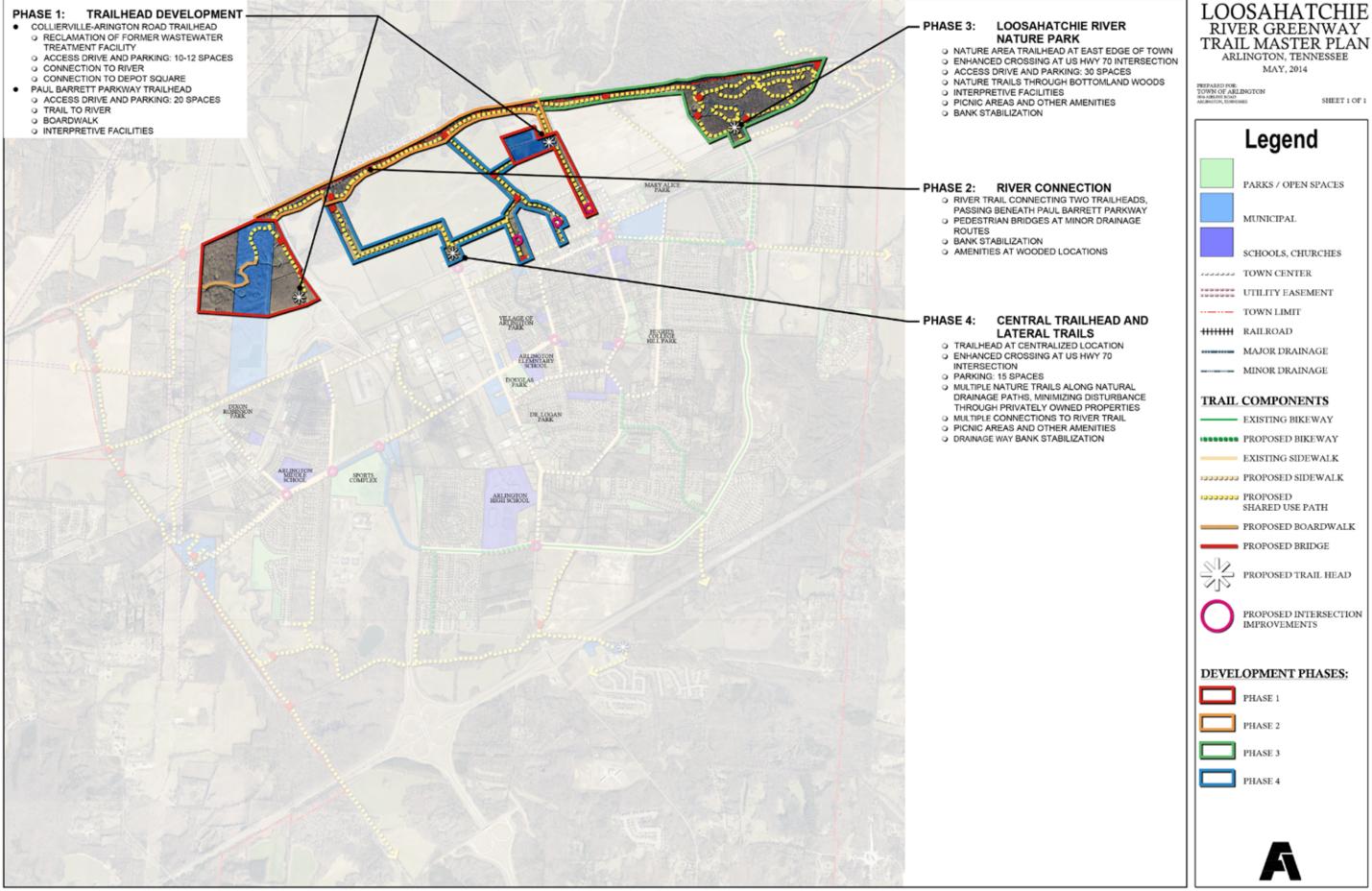
This trail head, located at the north terminus of the Milton Wilson Boulevard, offers exciting possibilities. Along with a parking lot and access drives, this trail head will incorporate additional trails along the Loosahatchie River Channel, as well as interpretive trails through the heavily wooded bottom land forest. The trail head could also be enhanced with a full-blown nature park facility, including interpretive and other nature-related facilities. This trail head has the potential to draw visitors from a wider region than the Town of Arlington community, and should accordingly

be provided a larger number of parking spaces and enhanced amenities to support the anticipated usage.

5.4.0 Phase IV: Airline Road Trail Head and Connectors

With the introduction of this trail head and connectors along the major drainage routes connecting to the River, a major loop of the Loosahatchie River Greenway Trail would be completed. Interface with much of the Town's residential population would be provided, as would connection to the major employment center and historic district in Town. These facilities would form the core of the expanded future trail system.





Legend

RIVER GREENWAY

ARLINGTON, TENNESSEE

MAY, 2014

PARKS / OPEN SPACES

MUNICIPAL

SCHOOLS, CHURCHES

TOWN CENTER

UTILITY EASEMENT

TOWN LIMIT

HHHH RAILROAD

MAJOR DRAINAGE

MINOR DRAINAGE

TRAIL COMPONENTS

PROPOSED BIKEWAY

EXISTING SIDEWALK

EXISTING BIKEWAY

PROPOSED SIDEWALK

PROPOSED

SHARED USE PATH

PROPOSED BOARDWALK

PROPOSED BRIDGE

PROPOSED TRAIL HEAD

PROPOSED INTERSECTION IMPROVEMENTS

DEVELOPMENT PHASES:

PHASE 1

PHASE 2

PHASE 3

PHASE 4

6.0.0 Greenway Design Standards

It is the intent of this master plan study to adhere the standards defined in the American Association of State Highway Transportation Officials (AASHTO), the American with Disabilities Act (ADA), the Federal Highway Administration (FHWA), and the Tennessee Department of Transportation (TDOT). Specific standards recommended in this plan are found in ASSHTO's Manual on Uniform Traffic Control Devices (MUTCD), 2009 edition, and Guide for the Development of Bicycle Facilities, 4th Edition. This plan also recognizes the recommendations and guidance found in the Memphis Urban Area Metropolitan Planning Organization's Regional Bicycle & Pedestrian Plan, which was adopted by that agency in December, 2011. The standards found in this document should be reviewed as needed when these reference standards are updated.

6.1.0 Trails

This master plan includes recommendations for three principal components of the proposed greenway trail system: pedestrian facilities, bike lanes, and shared use paths. Each is described in detail in the following sections.

6.1.1 Pedestrian facilities

Pedestrians are people on foot, using an assistive device such as a wheelchair, or walking a bicycle. Appropriate pedestrian facilities are safe, accessible, and provide connection to desired destinations such as homes, schools, shopping areas, and parks. The space required for accommodating two pedestrians, either in passing or walking side by side, is 4'-8", so a 5-foot minimum dimension is the recommended width for all pedestrian facilities.

Concrete sidewalks form the basic framework of Arlington's existing pedestrian system, distributed consistently in the newer subdivisions and planned development areas, but inconsistently or not at all in the older neighborhoods, which were developed during the Town's early history. An inventory of the width and condition of walkways and curbs (and the absence of walks) throughout the Town needs to be conducted in order to establish and prioritize the need for new or replacement sidewalks. The survey should include identification of all existing deficiencies, including lack of ADA accessible curb ramps, utilities (power poles, fire hydrants, etc.), and any other obstructions. Firm, durable surfaces are required for pedestrian ways, with concrete or asphaltic pavements being the preferred options.

The current code requires 5-foot wide sidewalks to be constructed along public rights-of-way associated with new development,

separated from vehicular ways by a landscaped area 4-1/2 feet in width, and in compliance with ADA standards (see Figure 12). This requirement provides adequate infrastructure for continuation of the pedestrian system with new development. However, guidance is needed for extending pedestrian facilities in already-developed areas of the urban core and along the more rural roadways of the Town. This development guideline section provides the standards to be utilized when introducing pedestrian facilities to complete the greenway trail system.

A. Urban facilities

The Depot Square area was recently improved with new pedestrian facilities consisting of sidewalk, curbs and gutter, and crosswalks. The pedestrian areas have a brick texture and color, as do the crosswalks, and the parking space bulb-out areas serve to enhance pedestrian safety. Similar improvements should be introduced for new developments in the core Depot Square area, in keeping with the street cross-sections provided in the Arlington Depot Square Master Plan, and incorporating the following recommendations.

Curb and gutter with specialty pedestrian pavements are recommended in the remaining core area of the Town, providing enhanced separation of traffics. In addition to the minimum 5-foot pavement dimension, extra width should be provided where utility poles, signs, or other obstructions are present. Figure 13 illustrates the minimum pedestrian walkway area with minimum clearance requirements in urban areas. Where buildings are located close to or adjacent to the right-of-way, additional pavement width, known as "shy distance" provides enhanced comfort for pedestrians. Continuation of the pavement material, color, and texture are also recommended in the Depot Square area, also in keeping with its Master Plan, lending uniformity to the historic area of Town.

Additional pavement width is needed for parking spaces adjacent to the pedestrian way, as illustrated in Figure 14 to accommodate vehicle overhang and the opening of passenger doors, in locations where street parking is permitted. Vertical clearances need to be maintained as well, with 7 feet required at signs and 8 feet required at permanent overhead structures (see Figure 13).



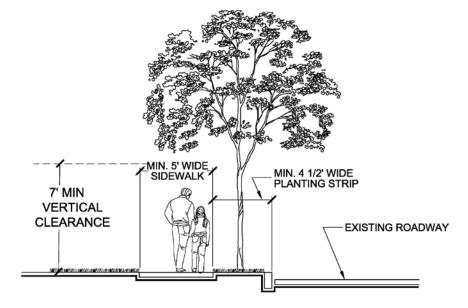


Figure 12. Typical sidewalk section

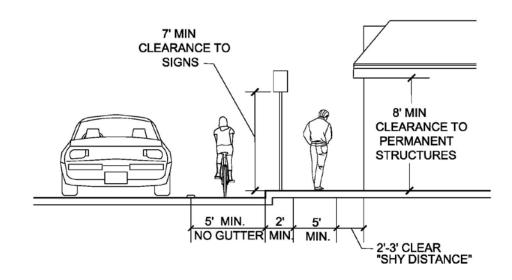


Figure 13. Minimum pedestrian way clearances



Enhanced separation of pedestrian and vehicular traffic can be provided with the use of planted areas adjacent to the curb where width permits (see Figure 15). The planting area provides space for shade trees, bicycle storage, and street furniture, all of which enrich the pedestrian experience. Bicycle lanes between the travel lane and the curb also increases separation between vehicular and pedestrian traffics, thereby enhancing pedestrian safety (see Section 6.1.2). In areas where adequate width is not available for introduction of bike lanes, a multi-use path adjacent to one side of the street should be introduced, with the planting strip and sidewalk on the other, providing enhanced bicycle safety.

B. Suburban and rural facilities

Suburban and rural pedestrian facilities, characterized by lack of curb and gutter, would be introduced in locations which currently lack sidewalks. Figure 16 illustrates the recommended separation between roadways and pedestrian walkways, as well as clearances needed where a ditch separates the two. Although the minimal dimensions are shown, it is recommended that broad curves be introduced to the pedestrian trails when feasible to improve the overall esthetic effect of the walkway. Segments of the proposed trail system adjacent to developed properties which lack curb and gutter should utilize this approach when introducing new pedestrian facilities. Either concrete or asphalt paths are acceptable materials for rural pedestrian routes.

C. Safety enhancement strategies

Statistics obtained from the *Pedestrian Safety Facts* publication of 1998 (National Highway Traffic Safety Administration, Washington, DC) reveal that pedestrians are susceptible to fatal injury under the following circumstances:

- in urban areas (71 percent of pedestrian fatalities);
- under the age of 16 (22 percent of all traffic fatalities, with 43 percent of those occurring between the hours of 4 PM and 8 PM);
- children between the ages of 5 and 9 (31 percent of those killed in traffic accidents were pedestrians); and
- older pedestrians (the death rate for those aged 70 years and above was 3.92 per 100,000 population higher than for any other age group, and accounting for 18 percent of all pedestrian fatalities).

Pedestrians are characterized by a wide range of abilities and rates of travel speed due to age, physical ability, and cognitive awareness. As a result, the prudent approach is to design pedestrian facilities to accommodate those who travel at the slowest rate of speed. This design aspect is most critical when considering intersection design. A larger corner radius requires a longer crosswalk, compared with a smaller turning radius at intersections (see Figure 17).

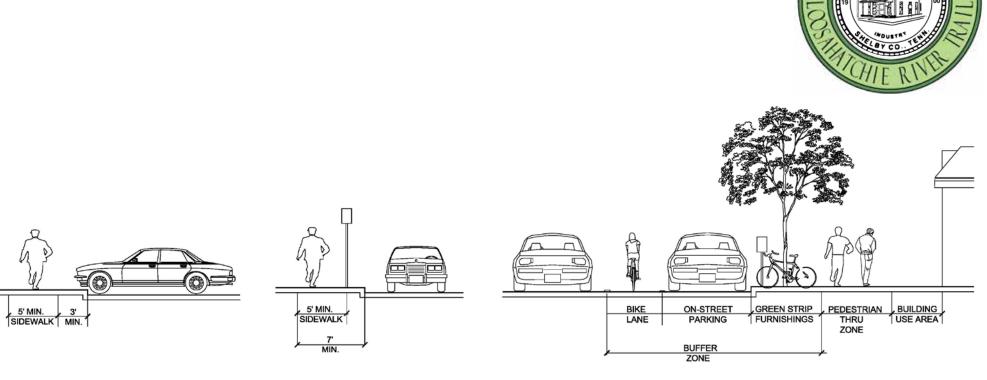


Figure 14. Minimum clearances at on-street parking locations

Figure 15. Typical section of pedestrian way in Depot Square area

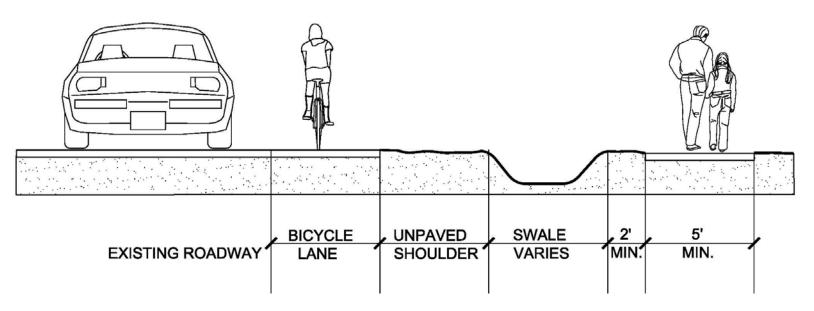


Figure 16. Minimum clearances for roads without curb and gutter.

The Town of Arlington's subdivision regulations identify a minimum radius for intersections in commercial areas as 45 feet and in residential areas as 30 feet. Larger turning radii permit smoother and faster turning movements by vehicles, but require pedestrians to spend more time in traffic, both of which increase the hazard to pedestrians (especially those travelling more slowly). Larger turning radii also require angled curb ramps, requiring pedestrians in wheelchairs to make a turning movement in the crosswalk (travel lanes), reducing the intersection's safety for those users.

One strategy for improving pedestrian safety is to require or permit smaller turning radii at intersections with a high volume of pedestrian activity, serving to reduce vehicular speed through turns while reducing the amount of time pedestrians spend in the intersection. This type of intersection configuration utilizes paired crosswalks at each corner, providing a straight line of travel through the intersection for pedestrians.

Another strategy to improve intersection crossings for pedestrians is to raise the entire intersection so that vehicles must reduce speed for the crossing. The entire intersection is raised to the elevation of the surrounding sidewalks, requiring the use of vehicular ramps but eliminating the need for pedestrian curb ramps. This measure is recommended for lower traffic volume (local) streets, and not for more heavily traveled thoroughfares, including federal and state highways.

The pavement markings utilized in the crosswalks can enhance visibility of the crossing areas, thereby enhancing pedestrian safety. Contrasting colored pavements, especially with lighter contrasting edges, provide improved visibility of the crosswalk area, as do large block-patterned painted stripes (see Figure 17). If utilizing contrasting pavement color, texture and pattern is the method selected for highlighting crosswalks, it is recommended that all such crosswalks be consistent throughout the greenway system. Any stamped asphalt treatment should include the thickest available material as well as new asphalt for the installation to maximize durability and longevity of the crosswalk pavement.

Another method for improving pedestrian safety at intersections uses pedestrian bump-outs (as utilized in the Depot Square pedestrian improvement areas). This method would be very useful for establishing a pedestrian presence at the intersection of Collierville-Arlington Road/Chester Street and US Highway 70. This improvement would provide pedestrian refuge in this large area of asphalt, and should include enough project area so as to provide a smooth transition between the 2-lane traffic configuration on US Highway 70 east of the intersection and the 4-lane configuration west of the intersection.

Boulevard streets can enhance pedestrian safety, especially for mid-block crossings. Boulevards serve as a place of refuge for pedestrians, and the crossings need to be designed so that the pedestrian travel route is angled toward oncoming traffic. This method should be utilized if future mid-block crossings are considered for Milton Wilson Boulevard. In addition, the Arlington Depot Square Master Plan recommends the introduction of a median on US Highway 70, a proposal also endorsed by this trail development plan.

D. Nature paths

One final pedestrian trail type that may be considered for the Loosahatchie River Greenway Trail system is the nature path. Figure 18 illustrates the necessary clearances and narrower width requirement for nature paths, which are intended to serve smaller groups of pedestrians accessing more sensitive natural areas. Nature trails are typically made of naturally-occurring materials (dirt trails) and are secondary to the paved main trails. They are recommended as part of the interpretive facilities suggested for the trail heads of the greenway system.



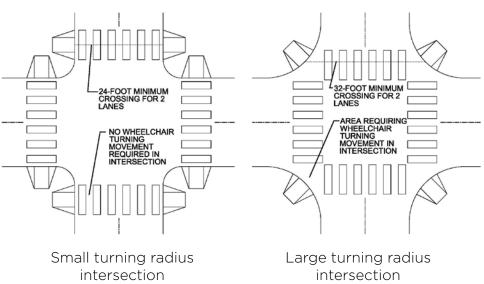


Figure 17. Comparison of crosswalks with varying corner radius

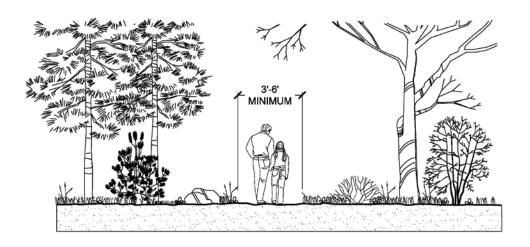


Figure 18. Nature path section



6.1.2 Bike lane (on-road) facilities

On-road bicycle facilities recommended for the greenway trail system include several options: marked bike lanes, shared lanes, wide curb lanes, and paved shoulders. The following paragraphs provide descriptions for the various forms of bikeways, including preferred locations, dimensions, and other characteristics. Pavement markings are included with the element descriptions, while signage requirements are found in Section 6.3.0.

A. Marked bike lanes

Marked bike lanes provide the most clearly delineated bicycle routes which are part of paved vehicular traveled ways. They are recommended for major roadways with design speeds greater than 25 miles an hour which provide direct connection between major land uses. The recommended width of marked bike lanes is five (5) feet, except under the following circumstances:

- Adjacent to a narrow on-street parking lane with high turnover, bike lanes between 6 and 7 feet in width are recommended to permit cyclists to avoid opening car doors without leaving the bike lane.
- In areas of high volume bicycle use and where on-street parking is not allowed, bicycle lanes between 6 and 8 feet allow cyclists to pass each other or ride side-by-side without leaving the lane.
- Six to 8-foot width bike lanes may be used in areas of high use, on high-speed or high volume roadways, or where there is a large proportion of oversize vehicles. The additional width helps offset the effects of wind from the larger vehicles.

Signage and pavement markings are required for proper delineation of bike lanes (see the *MUTCD* for signage requirements).

In addition to the existing facilities on Milton Wilson Boulevard, new bike lanes should be introduced when improvements are made to major roads in the Town of Arlington, including Collierville-Arlington Road / Chelsea Road and Airways Road.

B. Shared lanes / wide curb lanes

Shared lanes are utilized when adequate pavement width is not available for separately marked bike lanes, and are either marked or unmarked. They are recommended for major arterial or collector roadways with posted speed limits greater than 25 miles per hour, providing wider outside lanes on roads with heavier traffic. If adequate width is available, shared lanes could be considered for bicycle linkage on US Highway 70.

Recommended pavement lane width for shared lanes is between 14 and 15 feet, the greater width allowing extra room for bicyclists on steep uphill grades, as needed. The lane width should be measured from the center of the marked lane line to the center of the outside lane line (or gutter pan line for curbed roadways). Shared lanes in excess of 15 feet are not recommended, as this would encourage use of the additional lane width by motorists as an unmarked vehicle lane. See the *MUTCD* for recommended signage. Pavement marking options include the shared-lane marking referred to as a "sharrow". This marking should be placed in the location in the shared lane which represents a practical path for bicycles under normal circumstances. The *MUTCD* provides detailed guidance on placement options for sharrow markings.

C. Paved shoulders

Paved shoulders can be designated as bikeways where the shoulder width is at least 4 feet with no obstructions, or 5 feet where there are vertical obstructions such as guardrails or curbs. Additional width is recommended for roadways with designed speeds in excess of 50 miles per hour, where static obstructions exist at the edge of the roadway, or if the road has heavy use by trucks, buses or recreational vehicles. Paved shoulders which are utilized as bikeways cannot be utilized for other purposes such as parking or breakdown lanes, and supplemental pavement at unpaved driveways would be required to minimize gravel accumulation in the bikeway area. Paved shoulders utilized as bikeways should be appropriately marked (see the *MUTCD*).



6.1.3. Shared use paths

Trails which provide transportation routes separate from vehicular traffic routes are known as shared use paths. They are hard-surfaced paths at least 10 feet in width, and can be utilized in utility easement areas, along drainage ways, in floodways, or along residential developments. They are made of durable materials that provide stable surfaces, most usually asphalt but also concrete, and accommodate a wide range of users, including cyclists, pedestrians, skaters, skateboarders, and non-motorized scooters. Figure 19 illustrates the minimum dimensions and clearances for shared use paths. Another stable material option that may be utilized is the stabilized earth, which incorporates a resinous material into the native soil, which is then compacted in place and allowed to harden. This option has been utilized in numerous municipal gardens across the country, and is a good alternative for locations that are not inundated by flood waters.

The shared use path will follow drainage channels (see Figures 20 and 21), pass through wooded areas (see Figure 22), under roadways and the railroad (see Figure 23), and require bridges at drainage crossings (see Figures 24 -26). Underpasses (Figure 27) need to be designed so that users have unobstructed views through the underpass from both directions.

Prefabricated steel truss pedestrian bridges are an economical option, compared with cast-in-place bridges (see Figure 24). The bridges need to be designed to accommodate the full loaded weight of Town maintenance vehicles. Weathering steel is recommended for the structural members, because these do not require painting, thereby reducing the cost of maintenance. The bridge decking can be made of asphalt, concrete, or wood, although the latter is not recommended because of maintenance requirements. Removable bollards are needed at the bridge locations to prevent entry of unauthorized vehicles, but permit entry by maintenance vehicles (see Figure 28). Prefabricated bridges can be customized easily to provide a signature design element for the greenway trail, as can the constructed-in-place boardwalk elements (see Figure 29).

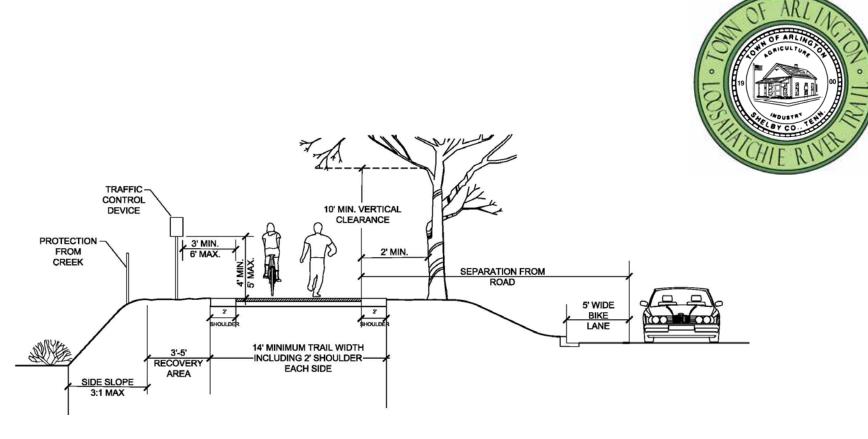


Figure 19. Typical clearance requirements for shared use paths

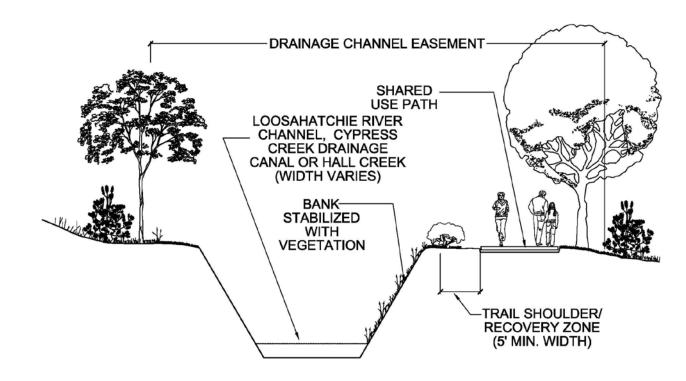


Figure 20. Shared use path section at channel edge





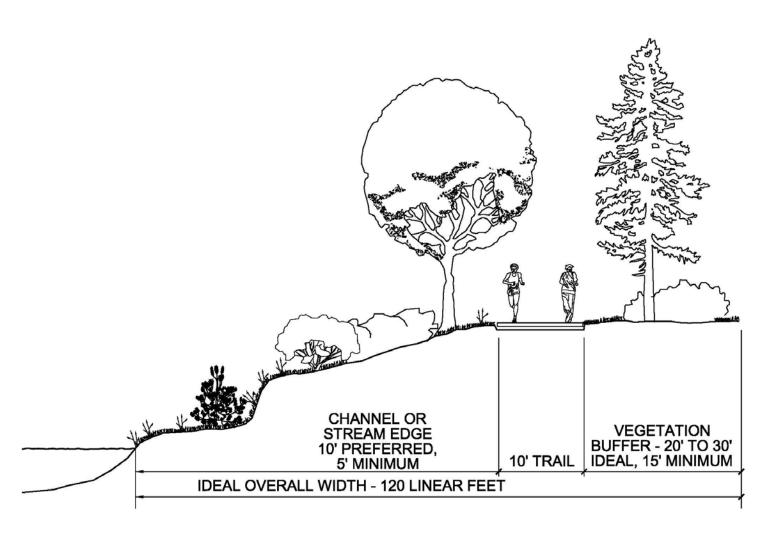


Figure 21. Shared use path section near channel

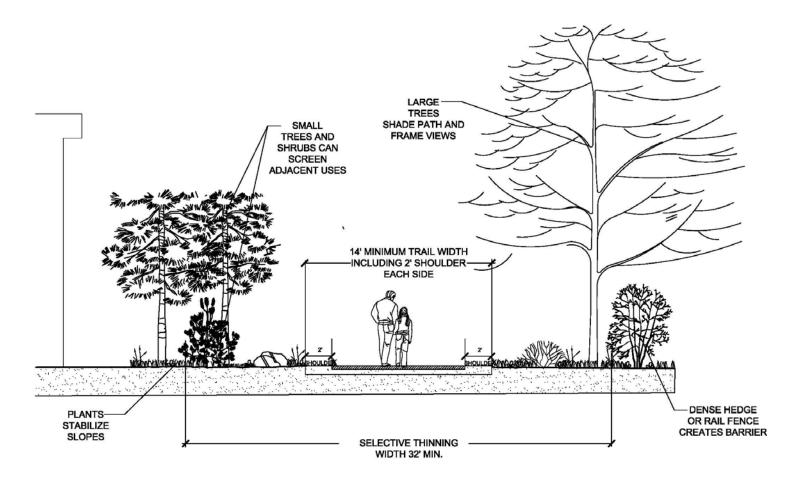


Figure 22 Shared use path through wooded area.

Barriers will be needed to provide safety for trail users in steeply graded locations, at bridge access points, and in other locations. Two-rail fences may be considered in the non-wooded agricultural zones near the Loosahatchie River channel area, and in locations where the shared use trails are in close proximity to residential developments. See Figures 22 and 25 through 27 for barrier element recommended locations.

Other supplemental elements for shared use paths include mile markers, benches, trash receptacles, and landscaping. Drinking fountains can be considered in locations where water service is easily accessed.

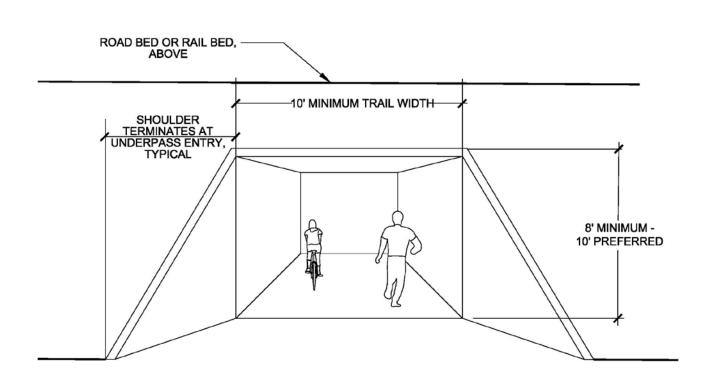


Figure 23. Underpass at roadways and under railroad tracks

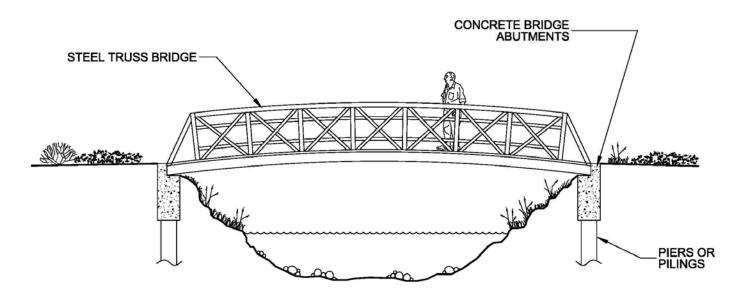
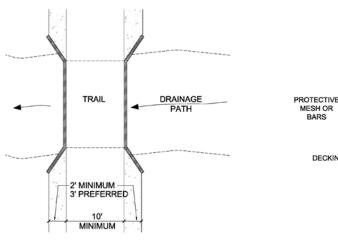


Figure 24. Pedestrian bridge elevation









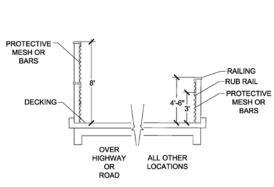


Figure 26. Railing section

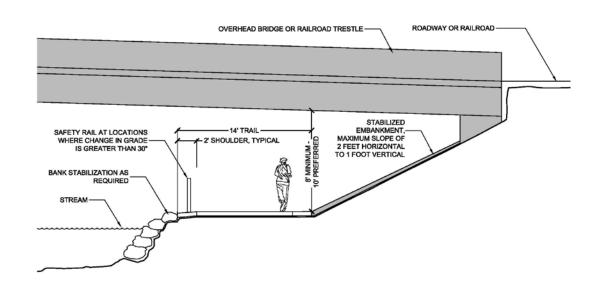


Figure 27. Trail section at railroad or highway overpass

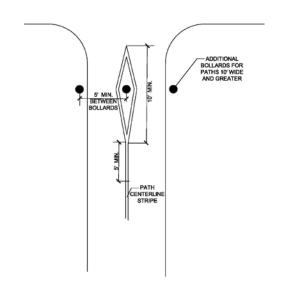


Figure 28. Bollard layout at trail and pedestrian bridge entry points

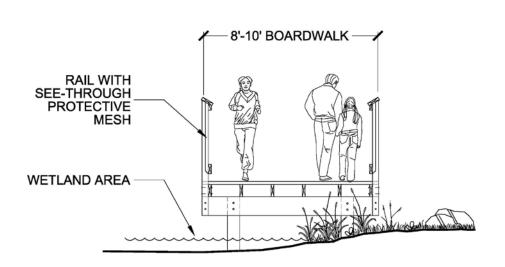


Figure 29. Section through boardwalk

6.2.0 Support facilities (trail heads)

Trail heads provide parking, signage, and other facilities which can include benches, trash receptacles, drinking fountains, picnic tables, shade structures and/or restroom facilities.

Parking should be provided at major trail head locations, utilizing the master plan section as guidance for number of spaces. The parking should be located in close proximity to the public access road, to minimize disturbance to the selected sites as much as possible. Accessible parking should be provided in accordance with the latest edition of the *ADA Standards for Accessible Design*, published by the US Department of Justice.

Restroom facilities are recommended at the Milton Wilson Boulevard Trail Head, which will also serve as the Town's east gateway for the greenway trail system, and could take the form of an enclosed pavilion or other similar structure.

Interpretive facilities should be introduced at various points along the greenway, especially at wetland areas, along the River's old meanders, and at the former wastewater treatment facility. Supplemental amenities for the interpretive elements could be as simple as a widened boardwalk area with signs and limited seating. The design of such facilities should be responsive to the featured subject, but should incorporate the design standards suggested for the various components of the trail system.

6.3.0 Signs, pavement markings and traffic signals

Signage for the Loosahatchie River Greenway Trail system should include the following types:

- Identification, regulatory, and way-finding signs (including mile markers)
- Bike route signs (for segments with and without bike lanes)
- Pavement markings (bike lanes, shared lanes, paved shoulders)

A signature, easily identifiable, sign prototype is needed to establish the identity of the new Loosahatchie River Greenway Trail system. Figure 30 illustrates one such sign that could be utilized to identify trail head facilities. This sign format could be installed with masonry, steel or wood supports in a ground-mounted sign format that would provide clear identification of park facilities. This sign could be replicated easily in a smaller size as a masthead for regulatory signs that would be needed at the trail head facilities. The second sign format, illustrated in Figure 31, echoes the format of the primary sign format, and could be utilized as the identifying element of supplemental signs placed

on roadways, such as bike route designated signs or directional signs. It could also be created in a survey monument format, to be embedded in a concrete base for use as mile markers on the trail or as medallions on the boardwalk as mile markers.

Signs for on-road bike facilities (including bike routes, bike lanes, shared lanes, and paved shoulders) are identified by the *MUTCD* and should be the standard utilized for marking such facilities of the trail system, including enhanced signalization and markings at railroad crossings. In particular, where the shared use path or sidewalks are proposed to cross the railroad tracks, complete separation from vehicular traffic is recommended.

Intersections should be improved as noted in the master plan, incorporating textured, contrasting pavement in the crosswalk areas. Ideally, the crosswalks should be as wide as the shared use path, but in no case should be less than 8 feet in width.

Alternatively, the block crosswalk markings illustrated in Figure 17 can be utilized for denoting crosswalks in minor intersections.

Additional signage is needed for shared use paths and at trail heads. Shared use paths require signs to indicate non-motorized traffic restrictions, and warnings of bridge approaches and roadway or railroad intersections.

Regulatory signs are needed, tailored to meet the requirements of local policy, such as whether animals are permitted on the trails, hours of operation, length of trail segments, difficulty of traversing the trail, and yielding information (cyclists yield to pedestrians). This information must be posted at each trail head to ensure consistency and to promote safe trail use.

Trail heads also require an overall map of the trail system, including a "you are here" notation indicating the location of the user for reference. Detailed maps and interpretive signs may accompany the regulatory and map signs, as needed.

6.4.0 Site furnishings and landscaping

Standards for trail elements should be adopted, with the intent that they be utilized for each phase of construction. The initial phase of trail development will introduce the trail's intended identity, so the elements to be incorporated in its design should utilize the following recommendations.

A. Pavilions and shelters

Hexagonal or octagonal prefabricated steel frame picnic pavilions are available in a wide variety of styles, finishes, and colors. The picnic shelter in Dixon-Robinson Neighborhood Park (see Figure



Figure 30. Welcome sign / main trail identification sign.



Figure 31. Supplemental sign



34) provides an example of such a facility. The shelters can be enclosed with solid sides (for use as restroom facilities) or with low railings, are available in a wide variety of sizes and colors, and are reasonably priced. It is suggested that other pavilions included in the trail system be similar in style, materials, and appearance. Shelters are manufactured by the following companies: RCP Shelters, Inc., Poligon (a subsidiary of Porter Corporation Manufacturing), and Picnic Shelters USA.

B. Benches, litter receptacles

Benches are offered in a multitude of styles, with many manufacturers providing distinctive designs. Unique designs, however, translate to single manufacturers for the product, and no competitive pricing. Benches with straightforward, clean lines and a minimum of material types are provided by several manufacturers, and so are recommended for the Town's greenway trail system (see Figure 35). Fewer materials translate to less expensive maintenance costs. Steel or cast aluminum frames (for durability) are paired with recycled plastic slats (for very low maintenance and durability) as the bench's recommended materials. The bench shown was introduced at Dixon Robinson Neighborhood Park, and is proposed as the signature bench style for the greenway trail system. The bench is available from Du Mor Site Furnishings, with similar products offered by Canaan Site Furnishings, and Maglin.

Litter receptacles similar to the park's benches in style, material, and color are suggested as the standards for the Greenway Trail (see Figure 33), and also are available from numerous manufacturers.



Figure 32. Pavilion style recommended for the Loosahatchie River Greenway Trail System





Figure 33. Design standard suggested for benches and accessible drinking fountains.



C. Bike racks

The "inverted staple" style bike rack is recommended for the greenway trail system. Consisting of an inverted "U" shaped steel tube embedded in a concrete footing, the bike rack style is usable by two bikes at a time and offers the most flexibility with regard to placement options. It can also be customized, as shown in Figure 34, with laser-cut and powder-coated sign elements. Full embedment in concrete footings is recommended as the standard installation option.

D. Bollards

Bollards should be highly visible, utilizing reflective tape for additional safety during twilight hours. They can be designed to coordinate with the bike racks, with many similar products being available from many manufacturers. Powder-coated galvanized round steel tubing with an angled top and inset reveals for application of safety reflective tape is the recommended style and material, which can accommodate a signature trail medallion. A similar, shorter bollard could be utilized for trail mile markers. The bollard's suggested appearance is shown in Figure 35, similar to Victor Stanley's Street Sentry Collection (model W-289) bollard.

E. Drinking fountains

Drinking fountains should be similar to the accessible fountain shown in Figure 33. This particular fountain is manufactured locally, by Most Dependable Fountains. Models include facilities for pets, and are available in a wide range of colors. It is suggested that the bollard and sign colors should also be utilized for the drinking fountains, providing another measure of consistency with the greenway design elements.

F. Landscaping

Possibly the most important aspect of landscaping for the new greenway trail is the opportunity to provide environmental enhancements. Plants can be introduced to the trail which assist in restoring natural habitat, stabilize the banks of the Loosahatchie River Channel and the Cypress Creek Drainage Canal, and provide shade and screening for the greenway system.

Plant material and low fencing should be utilized to demarcate the boundaries of the trail, especially in areas in close proximity to existing residential development and agricultural activities. Two-rail split rail fencing is recommended in the agricultural segments of the greenway trail system, while evergreen and other native plantings are recommended to provide separation from residential properties (see Figure 22). Native grasses, ground covers and

shrubs should be utilized along the banks of streams, channel, and canal, assisting in stabilizing the banks and offering wildlife habitat. Trees planted along the banks improve water quality by filtering pollutants and providing shade for the waterway. An excellent planting guide that should be utilized for the greenway trail systems is *Landscaping with Native Plants of West Tennessee*, a brochure published by the Tennessee Department of Environment and Conservation (TDEC) and included in the Appendix.



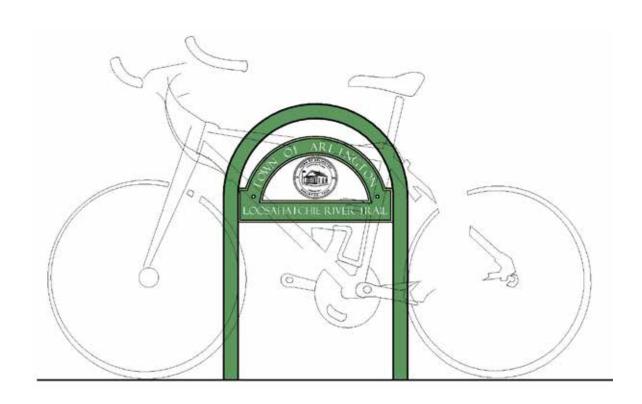


Figure 34. Customized bike rack

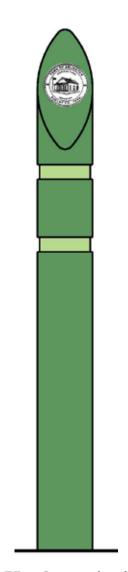


Figure 35. Customized bollard

7.0.0 Appendix

7.1.0 Master Plan Participants and Meeting Minutes See attached sheets.

7.1.1 Master Plan Participants

Seven individuals formed the core planning team for the Loosahatchie River Greenway Trail Master Plan project, and provided invaluable guidance:

Town of Arlington, Tennessee

Oscar Brooks, Alderman Heather Sparkes, Town Planner Kevin Carter, Parks Department Director Daniel Davidson Angela Reeder Steve McCarver

Fisher & Arnold, Inc.

David Baker, Director of Planning Isobel Ritch, Landscape Architect



MEETING MINUTES LOOSAHATCHIE GREENWAY TOWN OF ARLINGTON FEBRUARY 4, 2014

5:30 p.m.

Attendees:

Alderman Oscar Brooks
Heather Sparkes, Town Planner
Kevin Carter, Parks Department
David Baker, Fisher Arnold, Inc.

Daniel Davidson
Angela Reeder
Steve McCarver

Heather Sparkes opened the meeting with a brief overview of the project and discussed the background of the Greenprint Initiative. Each member introduced themselves and gave a little bit about their background as it relates to the Greenway project. The group also discussed a standing meeting schedule (first Tuesday of each month at 5:30) for the duration of the project.

David Baker outlined the schedule and content for the upcoming meetings:

February 4^{th} meeting - Kick off meeting

Inventory and Analysis

*Land Use

*Floodway/Floodplain

*Town Assets

*Pedestrian/Vehicular Circulation

March 4th meeting – Design Concepts April 1st – Master Plan/Draft Report

May 6th - Final Master Plan and Report

Presentation to Legislative Bodies - to be determined

Items discussed for consider for design:

- a. West of Paul Barrett Parkway is best opportunity for wildlife viewing and naturalistic area but is extremely wet most of the year consider boardwalk type system thru that area
- b. Majority of residents would utilize trail system for biking, walking, jogging. Very little or no interest in equestrian facilities.
- c. Consider educational opportunities such as plant and animal identification stations especially in the western natural area
- d. Look at ways to create connectivity from Depot Square to Kroger commercial area
- e. A secondary high interest area is western town limits along Memphis-Arlington Road
- f. Need for restroom facilities along trail system. Possibly at trailheads.
- g. Provide a mix of on street bicycle facilities, paved off road facilities and natural (dirt/mulch) paths
- h. Intersection improvements planned for Airline Road and Hwy 70, needed at Collierville-Arlington and Hwy 70.
- i. Would like long term connection to north side of Loosahatchie River similar to the Wolf River Pedestrian bridge.



MEETING MINUTES LOOSAHATCHIE GREENWAY TOWN OF ARLINGTON MARCH 4, 2014

5:30 p.m.

Attendees:

Heather Sparkes, Town Planner
Kevin Carter, Parks Department
David Baker, Fisher Arnold, Inc.

Angela Reeder
Steve McCarver

David Baker opened the meeting with a review of last month's meeting and discussion of meeting minutes from the previous meeting.

David Baker presented 2 conceptual plans for trail layout and connectivity to other parts of the town. Concept A:

Access - 3 trail heads located at Milton Wilson/Hwy 70, Collierville Arlington/lagoon site, and Memphis Arlington/West town limits.

Trail - restricted to along the Loosahatchie River to minimize impact to sod farm business.

natural area with boardwalk north of treatment facility.

Concept B:

Access - 5 trail heads located at Milton Wilson/Hwy 70, Collierville Arlington/lagoon site, retail center north of Collierville Arlington/Hwy 70, north of treatment plant, Memphis Arlington/west town limits.

Trail - expanded to connect to residential and retail areas along drainage off of Loosahatchie River. Connectivity illustrated into Fayette County, South of I-40 at 2 locations, north of the river via Hwy 70, Collierville Arlington and pedestrian bridge at TVA easement and river crossing.

Items discussed for consideration:

- a. Concept B was preferred option
- b. Remove landfill site as future open space from plan
- c. Add trail on the north and south side of railroad from Depot Square to Mary Alice Park.
- d. Provide trail from Green Lee to Kroger along railroad
- e. Remove trail on north side of track at Lamb Road
- f. Look at Phasing Opportunities
- g. Develop trail identification/branding element such as standard fence, sign, etc.
- h. Refine site furnishing palate to similar features used in Dixon Robinson Park.

Closed meeting with discussion about deliverables for next meeting revised master plan, phasing plan, site furnishings and draft report.



MEETING MINUTES LOOSAHATCHIE GREENWAY TOWN OF ARLINGTON APRIL 1, 2014

5:30 p.m.

Attendees:

Alderman Oscar Brooks Heather Sparkes, Town Planner

Kevin Carter, Parks Department Steve McCarver David Baker, Fisher Arnold, Inc. Angela Reeder

David Baker opened the meeting with a review of last month's meeting and discussed the prior concept plans and the revised master plan. After review of the revised master plan, the discussion focused on the phasing plan.

- A. Phase 1 Trailhead Development at 2 locations. The first is at the former treatment facility which includes: parking, limited access to the river, connection to Depot Square. The second is the Paul Barrett Parkway Trailhead north of treatment facility which includes: boardwalk, nature center, interpretive facilities, parking
- B. Phase 2 Connector between trailheads along river. Amenities include pedestrian bridges, bank stabilization, signage, amenities in wooded locations.
- C. Phase 3 Development of Nature Park at eastern end of study area. This area is to be comprised of parking, nature trails, primitive and paved, picnic areas, signage, educational components, wildlife viewing stations and pedestrian bridges.
- D. Phase 4 Central Trailhead and lateral trails located at, or within or adjacent to the retail development north of Hwy 70 and Airline Road. This consists of parking, intersection improvements to Hwy 70 for friendlier pedestrian movement, signage, trails to connect to Phase 2 trails, picnic areas to support potential restaurants in retail area.
- E. Phase 5 Ongoing expansion of on street and sidewalk infrastructure.

During the discussion, Steven McCarver brought up the idea to move Phase 1 to the eastern limits of the Town along with the Trail head at the abandoned treatment lagoon. The committee felt like this was a good suggestion in that it started the greenway system closer to the existing and future, planned residential areas. This would also coincide with the completion of Milton Wilson Road and that pedestrian and bicycle circulation system.

Subsequent phasing would be:

Phase 2 - Connector between trailheads along river. Amenities include pedestrian bridges, bank stabilization, signage, amenities in wooded locations.

Phase 3 - Development of the trailhead and related improvements at the area by the western treatment facility

Phase 4 - Development of the Central Trailhead and lateral trails located at, or within or adjacent to the retail development north of Hwy 70 and Airline Road. This consists of parking, intersection improvements to Hwy 70 for friendlier pedestrian movement, signage, trails to connect to Phase 2 trails, picnic areas to support potential restaurants in retail area.

Prior to closing the meeting the committee discussed deliverables prior to the next meeting and discussions on conducting a public hearing with the community prior to scheduling a joint Planning Commission, Design Review Commission and Mayor and Board of Alderman meeting.



Loosahatchie Greenway Master Plan Public Outreach Arlington in April – April 28, 2014

Heather Sparkes manned a table at Arlington in April from 9 a.m. to 3 p.m. A copy of the draft aerial plan showing proposed the proposed trail network was on display. Approximately 25 individuals viewed the draft plan and talked to staff. Staff reviewed the plan, describing the intent, connection to existing parks facilities, on-road and off-road pedestrian paths, nature paths, and the locations of proposed trailheads.

Comments were all favorable. Below is a summary of the comments.

- Residents asked about locations of planned parks within specific areas of town, near where they live. Staff explained the proposed plan, and identified locations. Residents talked about a desire for playground and open space facilities for passive recreation and activities such as kite flying, picnics, etc. There was discussion about recreational fields, and a desire for the Town to also include other activities in their planning efforts.
- Staff spoke with a resident that lives in the current Arlington Urban Growth Boundary area. This resident was excited to see the proposed trails, and possible connections to the north side of the Loosahatchie. She stated that she and her family currently drive to East Memphis to ride bicycles on the Greenway and Greenline on a weekly basis, but sees a need to have something closer so that they do not have to drive in order to find a place to ride their bicycles.
- There were a couple of discussions of the benefits of such a network for tourism and economic development. The residents that spoke of these activities explained that they have driven to other states to bike on regional networks, and that this is how they spend their vacation time. These individuals explained that there is a large amount of tourism and economic development potential for a town like Arlington to tap in to. Bicyclists eat and sleep along these networks, and it is a national movement toward these activities.
- Other individuals simply stated that they felt the trail system would be nice in Arlington.



Loosahatchie Greenway Master Plan Public Outreach Neighborhood Meetings May 17, 2014

Heather Sparkes and Kevin Carter attended each of the meetings. It had rained the evening prior, and continued into the morning. As a result, the first neighborhood meeting at the Doctor Logan Park was cancelled. We also believe that this led to a low turnout of individuals at the neighborhood meetings, as they were all located in parks.

The following are comments from attendees of each of the neighborhood meetings.

Dixon Robinson Park

- Trails will provide positive health benefits.
- Resident liked the location of the proposed Phases 1 and 2 of the plan, specifically the natural areas.
- There were positive comments about the emphasis of the trail network through the natural areas to create an area for people to enjoy nature, providing them something to see and experience. It was discussed that this will be nicer than having only paved areas through town and dealing with vehicular traffic.
- Residents discussed the benefits of being able to connect to the region from this trail system, and asked about connections to Lakeland as well as Fayette County.
- It was discussed that Arlington residents are currently driving to the Shelby Farms Greenline and other greenways in the region, and that this will be a benefit to have in Arlington. The discussion of the connectivity of the Loosahatchie Greenway to other trails systems was noted as a regional benefit in the future.
- Questions were asked about specific crossing points for residents to be able to access the trail system.
- One resident was concerned about snakes in the low lying areas and adjacent to the river.

Mary Alice Park

- Resident stated that he will like having the connection from the Mary Alice Park to the trail system nearby. He stated that he currently walks he trails at the Mary Alice Park, and is looking forward to being able to walk farther with the additional trails.
- The benefit for children in the neighborhood to have this trail system accessible to the residents was discussed.
- Resident liked the connection to Depot Square and ability to walk to the commercial areas.

College Hill Park

- Suggestions were made about the path along Chester Street between Milton Wilson Boulevard and Hayes Road, noting the winding configuration of the road and safety concerns. A recommendation was made to move the trail through the Chapel Ridge Subdivision to Dargie, which is a wider road and connects to Hayes Road.
- Resident wanted to make sure that the plan emphasizes nature and preservation. Wanted to make sure that any plants used along the trail are native plants, and not plant non-native plants along the river.
- There was interest in connecting to the larger region, specifically eastward to Lakeland, Bartlett, and eventually the Harrahan Bridge connections to west Memphis.
- There was discussion of the economic benefits of this plan, and the opportunity to attract bicycle shops, places for bicyclists to gather, eat, and one day lodge. This would be a great place for group rides to be arranged. The same for runners.



Loosahatchie Greenway Master Plan Public Outreach Public Meeting: Arlington Town Hall May 22, 2014

This Public Meeting was held at Arlington Town Hall, and was led by Heather Sparkes and David Baker. Comments during the meeting were positive. A Power Point presentation was provided, and large copies of the draft Master Plan and Phasing Plan were displayed on boards for the public to view closely and discuss.

The attendees stated that they liked to the reach of the plan to areas of town, not just along the river. They liked that the trail system will connect the parks and neighborhoods to the greenway trail. The locations of the trailheads were discussed, and there was positive feedback on the locations, and the amenities that could be provided at each trailhead. Attendees also discussed the boardwalk and nature trails along the river, and commented that they felt these would be nice additions for children and school groups for learning opportunities and for people to be able to see and experience nature in a different way than along a regular paved trail.

There was discussion about the ability to tie the trail system to the region, with one of the attendees being from Bartlett. That individual noted the benefit of having a regional trail system that connects Fayette County, Arlington, Lakeland, Bartlett, Memphis to Shelby Forrest, and then to the Mississippi River would be a great benefit to residents, as well as the potential to find connections to other trail systems in the region.



Loosahatchie Greenway Plan Neighborhood Meeting: Dixon Robinson Park May 17, 2014 12:00 to 1:00

Name Mila Malag	Address	E-Mail (if you would like us to keep you informed about the plan)
Moke Mckee	5509 Milton Wilson	memphomicket Rearthlink. net
Gary Lowry	5566 Lamb Rd.	
Diane Larry	5566 Land-Rd	
Diane Larry Jeff Mckee	6020 Carter View Lane	
Harry Mckee	12360 Forrest Street	



Loosahatchie Greenway Plan Neighborhood Meeting: Mary Alice Park May 17, 2014 1:30 to 2:30

Name	Address	E-Mail (if you would like us to keep you informed about the plan)
Steve Shaw	1215/Mary Alice	
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Loosahatchie Greenway Plan Neighborhood Meeting: College Hill Park May 17, 2014 3:00 to 4:00

Name	Address	E-Mail (if you would like us to keep you informed about the plan)
Steve Mc Carver	5728 Statley Hollow Cu	
Jenny Carter Mike Kennedy		
Mike Kennedy	5191 Summer Mist Drive Dept & Biological Sciences Unit of Memphis	mekenndy ememph, s, edu
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Loosahatchie Greenway Plan Public Meeting: Arlington Town Hall May 22, 2014 6:00

Name	Address	E-Mail (if you would like us to keep you informed about the plan)
Tara Wohlgemuch	8495 Brakhusi Rd. Grdou	modsouragreen ways egmail. com
Shotos Pedraza	N (I)	
David Thompson	5868 Stage Rd Bartlott	DThompson@cityosBartleH.ORG
	5215 Summer WIND LANE	Dos. Hiscie@Prusestique. com
Somuel Marrell	5215 Summer WIND LANE 48-13 Choter OD	
Angela Reeder		
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9180 Crestwyn Hills Drive | Memphis, TN 38125 888.583.9724 | www.fisherarnold.com