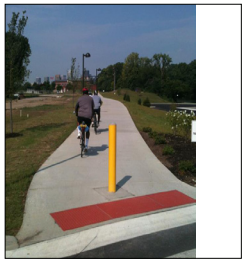
Louisville Loop

MASTER PLAN

CONNECTING PEOPLE TO A GREENER HEALTHIER COMMUNITY






ADOPTED

June 7, 2013

Greg Fischer, Mayor
Louisville Metro Council

Table of Contents

Acknowledgments

The Louisville Loop Master Plan builds upon the Louisville Loop Design Guidelines Manual and continues the vision, community ideals and principles set forth in that guiding document. Several individuals and groups have had a significant influence during the development of the Master Plan. The following are recognized for their commitment and participation in this master plan.

LOUISVILLE METRO AGENCIES:
MAYOR'S OFFICE
LOUISVILLE METRO COUNCIL
LOUISVILLE METRO PARKS
LOUISVILLE METRO PUBLIC WORKS
LOUISVILLE METRO ECONOMIC GROWTH AND INNOVATION
LOUISVILLE METRO DEPARTMENT OF PUBLIC HEALTH AND WELLNESS
LOUISVILLE METRO POLICE DEPARTMENT (LMPD)
LOUISVILLE METRO PLANNING AND DESIGN SERVICES
LOUISVILLE METRO FIRE AND RESCUE
LOUISVILLE METROSAFE

LOUISVILLE LOOP PARTNERS (External):
Transit Authority of River City (TARC)
University of Louisville
Louisville Downtown Development Corporation
Kentuckiana Planning and Development Agency (KIPDA)
Metropolitan Sewer District (MSD)
Waterfront Development Corporation
Olmsted Parks Conservancy
City of Prospect
City of Middletown
21st Century Parks
Kentucky Transportation Cabinet, District 5 (KYTC)
Private Developers

CHAPTER 1

Introduction

"When we build, let us think that we build forever. Let it not be for present delight, nor for present use alone; let it be such work as our descendants will thank us for; and let us think...that a time is to come when men will say, 'See, this our fathers (mothers) did for us!' – John Ruskin

The Louisville Loop Master Plan

The purpose of the Louisville Loop Master Plan is to expand this vision and define the cohesive elements and role of the entire system by providing a central location of information for the overall project that is available to citizens, elected officials, project managers, planners, users of the Loop, developers and others. It provides a context for the Loop within the history and growth of Louisville. It summarizes the elements of previously produced contributing documents and planning elements of the Loop and offers data, terms and background to build knowledge about trail alignment, design issues, the transportation network, maintenance and management, funding options, project prioritization and so on.

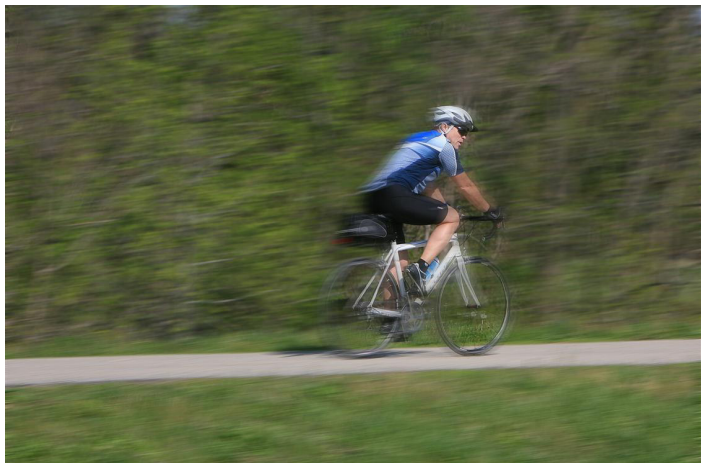
At the turn of the 20th Century, leaders in Louisville engaged the father of American landscape architecture, Frederick Law Olmsted, to design a legacy park system to be connected by a series of shared-use parkways. Over a century later, these 18 parks and five parkways provide the framework of a world-class park system. And, they provide inspiration for the Louisville Loop. This Master Plan document is the centerpiece for the implementation and sustainability of the Loop as a legacy project.

The Loop Master Plan and work on the Loop is guided by the Louisville Loop Strategic Plan and its five goals:

- Build Community Engagement
- Encourage Health and Wellness
- Maintain and Conserve
- Encourage Sustainable Development around the Loop Corridor
- Ensure Funding to Develop and Sustain the Loop

History of the Louisville Loop

Setting the vision for the Louisville Loop began in 1993 when more than 600 people worked together in a seven-year effort called Cornerstone 2020 under then County Judge Executive David Armstrong. The outcome was a call to transform our city into a community that brings people together in livable communities with a distinct sense of place. In 2003 this call was heard by Mayor Jerry Abramson as the first mayor of the merged city and county governments. In 2011, it was carried forward by Mayor Greg Fischer into the twenty-five year vision for Louisville.



One of the transformative projects of Cornerstone 2020 was a "perimeter loop trail along the entire length of the Ohio River in the southwest... along Pond Creek eastward via McNeely Park to Floyds Fork... back to the Ohio River. The loop trail should be developed as a special recreational feature which could include public art and an interpretive program designed to reveal the natural and cultural history of the County" (85). Parks and Open Space Master Plan, July 1995. The Louisville Loop also would "incorporate varying types and intensity of human use, including trails for passive recreation and alternative transportation" (2). MSD Stream Corridor/Greenway Plan, March 1995.

In 2005 Mayor Abramson launched the CITY OF PARKS initiative with the Louisville Loop as its centerpiece along with expanding and improving parkland and environmental education throughout the new city. As a result of community input, the perimeter path was named the Louisville Loop. An estimated 100-mile path system, the Loop will ring the city and link existing and new parks and neighborhoods to civic attractions while providing transportation alternatives that include bike and transit access. In 2011 Mayor Fischer described the potential of the Loop when he said: "The Louisville Loop will not only set us apart as a desirable city…it will bring us together as a community…it will be a wedding ring for our city…joining neighborhoods… helping connect people to recreation, to their work and to the place they do business."

Looking Forward

The vision of the Louisville Loop is to develop an estimated 100-mile loop path system that becomes an essential component for the growth and prosperity of the Region. It will form a network of shared-use paths, soft surface trails, on road bike lanes, stream corridors, Olmsted Parkways, greenways and transit routes. A transformative project for Louisville, it will create an integrated transportation system of sidewalks, transit, and bicycle facilities for our city and enhance the health and quality of life of our citizens. The Loop celebrates the City's history and natural world through public art in its infrastructure, complementing special places, and interpreting the land and geology through exploring its five physiographic regions. The intent of the Loop is to leverage the impact of the original Olmsted Park and Parkway system and to help shape the future experience of our community.

Potential of the Louisville Loop

The Loop exists primarily as an off-road shared-use path. It does and will meander through the community, often paralleling a stream, the Ohio River, a road, or natural area. The Loop has the potential to incorporate many best practices of sustainable communities and fulfill the mission to connect people to a greener and healthier community. It will distinguish Louisville as one of the nation's most livable cities through the use of green infrastructure, shared-use trails, active transportation systems, and safe and vibrant neighborhood districts. These are best practices employed by many of the more desirable and livable cities in the United States, including Denver, Indianapolis, Portland, Minneapolis, Raleigh, and Charlotte. These cities have elevated the quality of life for their residents and provide a tool to attract economic investment and tourism dollars. The new economy and chronic health issues require cities to invest in these resources. Louisville is primed to be among the best cities through the Louisville Loop project.

When completed, the Louisville Loop will pass within a mile of the majority of the population and connect directly to some of the largest employment centers in the county. This deep reach into the community has been the focus of the project's principles

and approach to:

- Improve mobility for non-motorized travel for pedestrians, bicyclists, transit users and equestrians
- Connect neighborhoods, schools, parks, workplaces and shopping areas to the Loop
- Encourage a wide range of users including families, children, people with disabilities, and athletes to improve health and fitness
- Celebrate the natural and cultural history of Louisville
- Enrich our lives with public art
- Serve as a catalyst for economic development by increasing property values near the Loop, encouraging tourism and providing amenities for neighborhoods and workplaces near the trail.
- Be an essential component for the growth and prosperity of the Region. A critical element to its success will be the coordination of many public agencies and private partners to assure the mission and vision of the Loop.

The Louisville Loop Master Plan supports successful implementation of the project, cohesive treatment of the facility and integration with all aspects of Louisville's built environment as it informs the progress and possibilities for Louisville and the region.

Benefits of the Louisville Loop

Over recent decades, shared-use trail projects across the country have yielded multiple benefits. It is critical in the planning and implementation of the Loop to understand the various and often interconnected benefits of urban trails. This understanding gives decision makers leverage to capitalize on other related opportunities (e.g. real estate, health, tourism, etc.) and maximize otherwise limited funding. A project like the Louisville Loop does affect the sustainability of a city's economic, environmental, and social health. These benefits include:

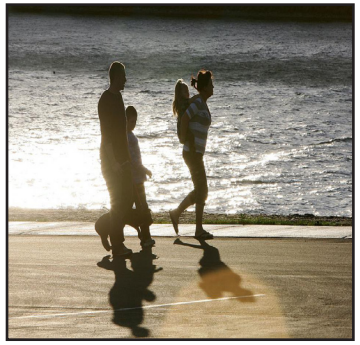
- Community Engagement
- Health and Wellness
- Economic and Transportation
- Environmental and Conservation

Community Engagement Benefits

Over the past 120 years park and parkway systems such as Boston's Emerald Necklace and Louisville's Olmsted Parks and Parkways have proven that this type of public investment is sustainable infrastructure that connects communities through safe and inviting facilities. Shared-use paths along these corridors provide the opportunity for residents to circulate in urban, suburban and rural areas in a safe, efficient, and fun way. Designed appropriately, these facilities link residential areas to parks, schools, workplaces, transit, and activity centers that provide goods and services. As a venue for recreation and transportation, trails and greenways serve communities as sites for community events and celebrations. In many communities across America, these types of facilities are becoming the new "front porches" of many communities. They provide the opportunities for families to spend "quality time" outside the household in a safe and inviting environment. These positive life-long experiences can serve all generations of a community and aid in overall well-being.

By capitalizing on the unique characteristics of place, a community can use trails and greenways to improve the quality and enhance its overall character. They provide friendly places to meet and socialize with neighbors and can be a source of neighborhood, community, and regional pride. Louisville has the opportunity to celebrate and connect the community to its cultural heritage of its natural and built environment by capitalizing on the Loop's alignment through historic and natural areas such as the Ohio River waterfront, the Jefferson Memorial Forest and the Floyds Fork watershed. All of these connections promote a sense of place and contribute to a safe and cohesive community.

Health and Wellness Benefits



The U.S. Surgeon General stated in a 1996 report on physical activity and health that at least 30 minutes of moderate activity per day will reduce people's risks of such chronic conditions such as coronary heart disease, hypertension, colon cancer, and diabetes. Promoting physical activity among children and adults has become a national priority and is an important strategy for reversing the obesity epidemic. Several studies have found that people get more physical activity if they have good access to specific places to exercise such as parks and trails. Residents with access and the choice to use safe places to be active, such as trails, within walking distance (typically 10 minute walk) of their home are more likely to meet the recommended 30 minutes of

physical activity. Older adults, and particularly women, who live within walking distance of trails and parks have demonstrated higher activity rates than those without access.

Social networking is an added health benefit provided by trails. Trails can provide a social focus, enhance a neighborhood's perception and lead to greater social ties. These ties have demonstrated outcomes such as increasing lifespan, improving mental health, and reducing crime and its associated health outcomes.

Poor health outcomes in a community are also a potential significant barrier for a community to attract or maintain companies and talent. Past studies have demonstrated that people who exercise regularly have lower claims against their medical insurance and spend fewer days in the hospital. Investment in amenities such as trails and parks have shown to increase economic investment as well as physical activity, especially close to home or work. With cities demonstrating high obesity rates investing in the right amenities to improve a community's health can be an asset to lure and maintain companies and talent. Cities like Oklahoma City are recognizing that an obesity epidemic could deter businesses that might consider locating there. They and many other cities are investing in bicycle and pedestrian facilities as well as parks create the right environment for promoting healthy and active lifestyles.

Economic Benefits

Trails, pedestrian pathways and bicycle paths have repeatedly proven to contribute to local economies through more than one route. Job creation, tourism, the development of commercial businesses and increases in real estate value are key areas through which these types of facilities have impacted local economies throughout the United States. A 2004 survey of by the National Association of Home Builders documented that the majority of recent homebuyers said trails are the number one amenity (outside of highways) potential homebuyers cite when asked what they would like to see in a new community. This result confirms what researchers have discovered in several communities over the last two decades – properties within an accessible distance and direct access of trails (1/2 mile typically) demonstrate increased property values and provide higher tax revenues for local jurisdictions.

A recent study of nearly 2,000 residential properties in Hamilton County, Ohio (Cincinnati) demonstrated the influence of the Little Miami Scenic Trail. For every 1,000 feet from the trail, the average priced house in the sample devalued by $8,960. In other words, the closer to the trail entrance, the higher the values. Trails also provide a viable tool for improving a local economy's vitality as a workforce attraction and tourism amenity.

A recent study conducted by the Political Economy Research Institute at the University of Massachusetts to investigate the employment impacts of pedestrian and bicycle infrastructure in 11 cities in the U.S. reveals that off-street multi-use trails create more jobs per $1 million investment (i.e. direct, indirect and enhanced jobs) than road infrastructure only projects.

In our high-tech and service-oriented economy, employers and employees seek communities that provide a high quality of life, with trails playing a central role. Office site locations adjacent to rivers, trails and greenways are more attractive to prospective tenants than sites lacking such amenities. Businesses realize the benefits of healthy employees, both in increased efficiency and decreased health insurance claims.

Tourism and recreation-related revenue from trails and greenways has the potential to benefit a community's economy. In addition to the construction and maintenance of trails and greenways, they create opportunities in recreation rentals (such as bicycles), recreation services (shuttle buses and guided tours), historic preservation, retail, restaurants and lodging. The tourism industry rule of thumb is that for every one dollar of investment, there is a three dollar return on that investment, if not more.

Transportation Benefits

Bicycle and pedestrian infrastructure first became eligible for Federal surface transportation funds following the passage of the Intermodal Surface Transportation Efficiency Act (ISTEA) of 1991. Various ISTEA funded programs supported trails and greenways with the goal to increase the viability of bicycling and walking as a form of transportation. Since that time, the construction of shared-use paths, sidewalks, and dedicated bicycle facilities has played a critical role in many American cities for building community support around non-motorized forms of mobility. Today, half of all trips made can be completed within a 20-minute bike ride, and a quarter of trips are within a 20-minute walk.[2] The reality is that most of these trips are made by vehicle. Cities that have invested in infrastructure that supports more bicycling and walking as modes of transportation have demonstrated an increase in ridership levels and reduced crashes and fatalities.

Following two decades of implementation of trail and greenway systems throughout the United States, several studies have begun to present evidence of the transportation impact of separated bicycle and pedestrian facilities such as trails and greenways. A 2011 study of cycling facilities in 90 large U.S. cities demonstrated that cities with a greater supply of bike paths and lanes have higher bike commute levels. Due to investments in separated paths and on-street lanes, between 2007 and 2010, Minneapolis saw an 33% increase in ridership.[3] Research in Seattle, WA demonstrated that household proximity to bicycle paths increased likelihood to cycle by at least 20%.[4] Other studies have shown that people are more likely to travel greater distance and increase time if they ride on shared-use paths as compared to more direct, shorter distances with on-street facilities. Even more, trails and greenways have demonstrated the potential to attract a greater diversity of users as studies have shown that women and inexperienced cyclists prefer riding on paths, lanes, and low-volume roads.

This evidence infers it is possible in some of Louisville's highest residential and employment density areas, particularly in the neighborhoods along the RiverWalk and the Olmsted Parkways sections, that paths offer a viable alternative to single-occupant vehicle use. Through the planning process, these trails have been considered useful links between neighborhoods and destinations such as downtown,

[2] 2009 Natinoal Household Travel Survey, FHWA Office of Policy

[3] Federal Highway Administration. 2012. Report to the U.S. Congress on the Outcomes of the Nonmotorized Transportation Pilot Program SAFETEA-LU Section 1807. Federal Highway Administration

[4] Pucher, John and Ralph Buehler. 2012. "Cycling to Work in 90 Large American Cities: New Evidence on the Role of Bike Paths and Lanes." Transportation, Vol. 39, No. 2, March/April 2012, pp 409-432

community facilities, parks, retail outlets and many more. These facilities should receive even greater attention when considering their dual value as both recreational trails and transportation alternatives as well as other impacts such as improving air quality, saving energy and reducing congestion.

Environment and Conservation Benefits

The mission of many trail and greenway projects nationally is to create synergy between conservation and outreach and reengage the public in those activities. Where trails touch and provide access to streams, rivers, wetlands, and other natural areas, they increase the opportunities for connecting the community to those resources. In this context, greenway trails can serve as an ecological tool by providing habitat corridors for wildlife as well as help mitigate impacts of flooding on a community. As an educational tool, trail signage can be designed to inform trail users about water and air quality issues and the geological and cultural history of a particular area or watershed. As part of a greenway system, the Loop provides a hands-on environmental classroom for people of all ages to experience natural landscapes and to become more environmentally aware. Trails and greenways in urban areas provide the opportunity to improve the aesthetics and safety of the city. They serve as a catalyst for transformation, especially as it relates to reducing vandalism and encouraging neighborhoods to take pride in their natural areas.

Beyond the path, shared-use paths have shown to perform transportation benefits

that also serve to aid in environmental and conservation matters. Using shared-use paths for short distance trips has the potential to positively affect a community's greenhouse gas emissions as it replaces a motorized trip with a non-motorized trip. This greenhouse gas reduction can also lead to beneficial health outcomes. A reduction in carbon dioxide emissions through an increase in biking and walking for transportation has greater health benefits for a population than from the increased use of lower-emission motor vehicles. As an economic development tool, demand to be closer to trails can encourage higher-density development closer to the trail. This approach can serve to promote sustainable growth and development by helping to define patterns of development and in some cases protect sensitive areas while meeting the community's economic and spatial needs.

Two Key Terms: Loopshed and Greenways

Loop specific terms are identified in the 2009 *Louisville Loop Design Guidelines Standards*. Two terms specific to the Loop, Loopshed and Greenway, provide an understanding of its potential and inform planning and development. The success of the Louisville Loop depends on the urban and suburban networks that feed into and support the connections and amenities to the facility. The way to analyze, plan, and implement connections and amenities is to consider the Louisville Loop within the context of the "Loopshed." The Loopshed is defined as the links within a network or defined space (typically 1/2 to 1 mile radius) that feed into the main Loop pathway corridor, much like waterways within a watershed; it includes streets, greenways, and other key corridors that link the Louisville Loop path with the immediate communities and their destinations.

With the existing built portions and proposed future alignments, the Loopshed, defined as 1/2 to 1 mile from the Loop, has the potential to capture the majority of the habitable areas of Louisville. The Loopshed is the context to analyze the most effective and efficient network for the Louisville Loop to provide connections within an area and to connect that area to other parts of the city, creating a greenway system.

Modern greenways have become key to urban infrastructure in cities across the country. The value as infrastructure goes beyond landscape. Trail systems across the country now consider storm water management, water quality, habitat preservation and economic development as multi-objective values of greenways. The Louisville Loop, alongside the existing and future trails, will form the framework and basis of a dynamic greenway system for Louisville. The vision for creating a greenway network, including the development of the Louisville Loop was a central focus of the 1995 published *Louisville and Jefferson County Multi-Objective Stream Corridor/Greenway Plan.* The plan recognized greenways as "land use that supports the natural infrastructure of the county landscape" (2).

For this *Loop Master Plan*, greenways are defined as a linear, accessible corridor of interconnected land that may offer public facilities. A greenway connects parks, natural areas, cultural features, historic sites, and schools with commercial business and residential areas. A greenway often follows a river, creek, ridgeline, valley or linear open spaces but may also follow railroad corridors, utility rights-of-ways, parkways and other roads. A greenway can provide hike and bike trails, pedestrian and transit connections, a linear park system, a wildlife corridor, areas for flood control, and a means for preserving water quality while serving as an active transportation system that connects citizens to a greener, healthier city.

Louisville Loop Progress

Prior to the CITY OF PARKS initiative in 2005, various path segments of the Loop alignment had been implemented and enjoyed. In the early 1990s, Hargreaves Associates developed plans for Waterfront Park, incorporating elements of the future path that would become the Louisville Loop, including the Big Four Pedestrian Bridge. After the 1996 completion of Phase II of the RiverWalk, a continuous path extended from Waterfront Park to Shawnee Park. In subsequent years, phases along various segments of the Ohio River allowed pedestrians and cyclists to enjoy long segments of the Loop and that effort continues.

The 1996 *Ohio River Corridor Master Plan*, developed as part of Cornerstone 2020, set the goal to connect people and neighborhoods to the Ohio River. Through multiple segments, the "Ohio River Corridor Trail" would extend the RiverWalk into northeast-Jefferson County and link adjacent neighborhoods through street and path connections. The waterfront would "provide

a continuous publicly accessible strip of land along the entire 37-mile riverfront that allows for pedestrian and bicycle circulation along the River's Edge" (3). In 1995, then Governor Brereton Jones granted Jefferson County funding to begin constructing the first segment of the path, starting at the Water Tower at Zorn Avenue and heading north and terminating at Indian Hills Trail.

In 2000, the Metropolitan Sewer District (MSD) and Jefferson County Public Works partnered to build a 3.5 mile segment of the Levee Trail connecting Farnsley-Moremen Landing to Riverview Park at Greenwood Road. In 2002, the project continued with Phase II of the path opening a 3-mile segment between Greenwood Road and the juncture at Cane Run Road and Lower Hunter's Trace. In 2005, under the newly-merged government, Louisville Metro began planning and implementing the Louisville Loop alignment from the Levee Trail north to Shawnee Park. The 2008 dedication of the Mill Creek Bridge in southwest Louisville marked the opening of a contiguous 23-mile section of the Louisville Loop. In 2012 a private developer, the Poe Company, built a nearly mile long section of the Loop that links Waterfront Park to Eva Bandman Park.

Segments of the Loop have been built by the Metropolitan Sewer District in the southwest and by KYTC in the east. These efforts are documented in the Partner section of this document.

Louisville Loop planners and their partners have achieved key milestones for the Loop's future. Future path segment planning has been included in plans such as *The Floyds Fork Greenway Master Plan* (2009) developed by 21st Century Parks, the *Olmsted Parkway Shared-Use Pathway System Master Plan* (2009) and the *Northeast Loop Corridor Plan* (2010), among others.

In 2010, the U.S. Centers for Disease Control and Prevention (CDC) awarded Louisville Metro funds through the "Communities Putting Prevention to Work" grant that would accelerate planning efforts for the Loop. This funding opportunity led to the development of the *South and Southwest Greenway Master Plan*, the *Northwest Parkway Livability Plan*, and the Louisville Loop Signage and Wayfinding Plan. Other segments of the Loop are being incorporated into the planning of other road projects including Cooper Chapel Road and Shelbyville Road/I-265 interchange including the Middletown-Eastwood Trail (MET). Design, safety, and construction standards, among other items, have been included in such documents as *Louisville Loop Design Guidelines* (2009). A summary of each of these documents will be discussed in the Existing Conditions chapter of this document.

The progress of the Louisville Loop is ongoing and one that will require frequent updating to capture the story. Methodology for updating progress in the Louisville Loop Master Plan will be addressed in the Implementation chapter.

Partners

The Louisville Loop is a complex multi-year project that requires strong partnerships to succeed. The early success for planning and implementing parts of the project can be attributed to a wide spectrum of partners that embrace the Loop as more than a path. Because of its broad focus and reach in the community, partnerships have evolved to meet mutual needs and maximize opportunities. This partnering includes planning the alignment, safety, maintaining various segments, and programming uses along its route. For example, the Levee Trail in southwest Jefferson County began as a project of MSD along the Ohio River Levee. From there, Jefferson County Public Works partnered with Jefferson County Parks officials to complete sections further north, working in partnership with MSD. The RiverWalk Trail established the partnership between the City of Louisville's Public Works and the Waterfront Development Corporation. In the post-merger era of Louisville Metro Government, Waterfront Development Corporation continues to be a key partner as they incorporate the Loop into various phases of the Waterfront Park expansion, including the landmark project and mile 0 of the Louisville Loop at the Big Four Bridge. The Poe Company commitment to build demonstrates the value of private partners to complete the Loop.

In recent years, strong partnerships have formed with external entities that sustain the project and enrich its scope. The Olmsted Conservancy has been a key partner due to the Olmsted Parks and Parkways being a centerpiece of the Loop project and its connection to the city. In 2005, a strong partnership formed between the non-profit organization 21st Century Parks and Louisville Metro Government and Future Fund to develop the Parklands of Floyds Fork. This system of parks along the Floyds Fork stream will incorporate approximately 19 miles of the Loop through 4,000 acres of new parks between Bardstown Road and Shelbyville Road. Louisville Metro Parks has partnered with the U.S. Army Corp of Engineers to develop watershed planning for the Pond Creek corridor including the Louisville Loop connection between Dixie Highway and Bardstown Road.

Several sections of the path go beyond parks and require the use of public right-of-way. A key partnership has been established with the Kentucky Transportation Cabinet. In areas of northeast Louisville, KYTC has incorporated portions of the Loop in segments along Shelbyville Road and U.S. 42 in the Prospect area. KYTC has included key connections to the Loop in their planning projects, such as Greenwood Road in Southwest Louisville.

A strategic partner in recent years has been the partnership with the Louisville Metro Department of Public Health and Wellness. Under the grant awarded to Lou-

isville Metro Government in 2010 by the United States Center for Disease Control and Prevention (CDC), Communities Putting Prevention to Work (CPPW), significant visible progress was achieved. Development and implementation of a wayfinding system, planning a complementary greenway system in Southwest Louisville, and establishing emergency response protocols for the Loop all advanced under the support of the CPPW grant.

Citizen partnerships have evolved with the planning of the route alignment. The Anchorage Trail Committee and the Friends of the Loop advisory group have asked key questions and provided support. Over 100 cyclists and pedestrians are now members of the Louisville Loop Trailwatch and report damage, debris and unsafe activities on the Loop. Each of these partnerships and many others established over the timeframe of the Louisville Loop project have provided new opportunities for financial and technical resources. In future years, aligning the key objectives of the project with these partners and beyond will assure a sustainable project and the continuation of strategic alliances to assure maximum impact of the Loop on the quality of life in Louisville.

Key Partners of the Louisville Loop:

- Mayor's Office
- Metro Council
- Metro Parks
- Louisville Metro Public Works
- Metropolitan Sewer District (MSD)
- Waterfront Development Corporation
- 21st Century Parks
- Olmsted Parks Conservancy
- Kentucky Transportation Cabinet (KYTC)
- Louisville Metro Department of Public Health and Wellness
- U.S. Army Corp of Engineers
- Transit Authority of the River City (TARC)
- Kentuckiana Regional Planning and Development Agency (KIPDA)
- Louisville Metro Planning and Design Services
- Louisville Metro Economic Growth and Innovation
- MetroSafe
- Louisville Metro Police Department (LMPD)
- Louisville Metro Fire and Rescue
- Downtown Development Corporation
- Private developers

Loop-Related Milestones:

1989 – RiverWalk Preliminary Concept Plan
1990 – Waterfront Park Master Plan
1993 – Riverwalk Phase I dedicated
1994 – Olmsted Parks and Parkways Master Plan
1995 – Parks and Open Space Master Plan
1996 - Riverwalk Phase II (connected to Shawnee Park) dedicated
1997 – Waterfront Park dedicated
1998 – Levee Trail Phase I
2000 – Cornerstone 2020
2002 - Levee Trail Phase II from Riverview Park to Farnsley-Moremen Landing
2004 – Partnership with 21st Century Parks
2005 – City of Parks Initiative
2005-2012 Forest Acquisition receives $3,450,000 million donation for Loop-related land
2006 - Louisville Loop Designated among top 25 innovative projects by Harvard
2007-2017 – Olmsted Parkways planning, design and construction phases
2008 – Louisville Loop public naming contest
2005-2008 – Planning and Implementation to connect Levee Trail to Shawnee Park
2008 – 23-mile section of Louisville Loop dedicated with opening of Mill Creek Bridge
2009 - 21st Century Parks releases "The Floyds Fork Greenway Master Plan" outlining 19-mile segment of Louisville Loop
2009 – Louisville Loop Strategic Plan
2009 – Louisville Public Art Master Plan designates Loop as critical public art venue
2009 – Louisville Loop Design Guidelines
2009 – Jefferson Memorial Forest Master Plan
2009 – Olmsted Parkway Shared-Use Pathway System Master Plan

2007-2010 – Planning for Northeast Corridor
2009-2013 MET (Middletown/Eastwood) segment plan, design, construct
2010 – Louisville Loop Soft Surface Trail Standards Manual
2010 – Center for Disease Control grant for Wayfinding, security, communication, Louisville Greenways – South Points: A Greenways Master Plan for South and Southwest Louisville and Northwestern Parkway studies
2011 – Louisville Loop Wayfinding Master Plan
2011 – Parks, LMPD, EMS, Fire And Rescue develop security/safety plan
2011 - Pond Creek Corridor Shared-use Path and Ecological Restoration Plan completed
2011 – Construction begins on Floyds Fork Loop section
2011-2013 – McNeely Lake Park planning, design and construction phases
2012 – KYTC constructs Loop from English Station to Beckley Woods Drive
2012 – Health Impact Assessment, Economic Opportunity, and Community Transportation reports completed
2012 – LOOPWATCH Team created (100+ volunteers)
2012 – Poe Company constructs Loop from Waterfront Park to Eva Bandman Park
2012 - Metro Parks initiates planning for Loop segment between National Turnpike and Bardstown Road
2012 – Metro Council approves budget and funding for dedicated Loop maintenance crew and program
2012 - Directors of Metro Parks, Public Works, and MSD sign interagency maintenance agreement
2012 – Wayfinding Plan implemented from Big 4 Bridge to Watson Lane
2012 – Louisville Loop Strategic Plan update
2012 – Governor supports funding for East End Bridge/Prospect connector
2013 – McNeely Road and path construction to begin
2013- Extension of Loop path from Farnsley-Moreman Landing to Watson Lane to begin
2013 - Big Four Bridge Opening
2013 - Metro Parks initiates planning final Loop corridor along Ohio River in northeast Louisville
2013 - Louisville Loop Master Plan Adoption

Mission, Vision, Goals and Objectives

Mission: The Louisville Loop connects people to a greener healthier community.

Vision:
The Louisville Loop is an essential component for the growth and prosperity of the Region. A network of shared-use paths, soft surface trails, bike lanes on roadways, stream corridors, Olmsted parkways, and transit routes, the Loop provides alternative transportation choices for residents and visitors of Louisville and the Region. The Loop celebrates the City's history and natural world through public art in its infrastructure and special places.

The Loop:

- Enhances economic development opportunities in the Loopshed (1/2 mile to two miles on either side of the Loop);
- Encourages sustainable development in the Loopshed;
- Provides safe and accessible opportunities to engage in active lifestyles;
- Connects neighborhoods to each other, schools, work, retail businesses and parks;
- Promotes the protection and appreciation of natural assets, culture, and history; and,
- Enhances and improves air quality and the natural environment.

Goals and Objectives:

Goal 1: Complete the Loop
Plan, design, and construct segments of the Louisvillle Loop to modern Federal rules, regulations, and guidance.
Objectives:

- Establish priorities for designing and building projects using performance criteria as a guide for decision making.
- Develop a timeline for project implementation over the next 10 years.
- Ensure the Loop becomes an integral part of Louisville Metro's transportation system by connecting with pedestrian, bicycle, and transit networks.

Goal 2: Build Community Engagement:
Create and nurture a widespread belief in the community that the Louisville Loop is an essential part of the Region's quality of life that people will be inspired to support and defend.
Objectives:

- Develop a functioning external advocacy group, Friends of the Loop, based on structure recommended by organizing committee.
- Ensure that Metro provide adequate resources to sustain the advocacy group.
- Develop and implement a program for public outreach and communication for the Louisville Loop.
- Develop a partnership with businesses, civic groups, government entities, churches, schools and neighborhood groups to sustain and enhance the Louisville Loop through increased usage, financial support and

volunteerism.

Goal 3: Encourage Health and Wellness:
Use the Loop to demonstrate and reinforce a lifestyle of health and wellness by promoting, partnering, and providing opportunities for all.
Objectives:

- Ensure safe access to Loop from neighborhoods, schools and youth populated areas.
- Create opportunities to enhance quality of life and active living at individual, neighborhood, and community levels by using the Loop for walking, bicycling and other recreational activities.
- Provide fun and lifestyle-oriented destinations for organizations and individuals.
- Assess the health impact of the Loop and use findings to develop key indicators for measuring future progress of the community's health and wellness.
- Provide educational opportunities with partners such as JCPS, which integrate the Louisville Loop.

Goal 4: Maintain and Conserve
Ensure the Loop is maintained at the highest standards for safe public use, connectivity, recreation, and transportation.
Ensure stewardship of the Loop and the Loopshed that enhances the physical and natural landscape.
Objectives:

- Determine the appropriate entity and organizational structure to oversee maintenance and protection of the Louisville Loop that appropriately addresses the statutory and regulatory roles of key agencies.
- Develop a general maintenance plan for the Loop that meets the goals of being cost effective, with efficient delivery of services, while protecting and enhancing the ecological integrity of the Loop.
- Ensure public safety within the Loop by developing the necessary relationships with local police, fire, and EMS and developing appropriate initiatives to engage the community to promote public safety.
- Determine conservation initiatives and partnerships that enhances and protects the loop as a provider of habitat, a vital resource connecting the community to the natural world, and that uses public art as a tool to interpret the natural worlds as well as to celebrate special places on the Loop

Goal 5: Encourage Sustainable Development around the Loop Corridor
Encourage growth and sustainable development in the Loopshed to create healthy communities, support local economies, and protect the environment. Ensure investment in infrastructure respects the existing communities yet creates vibrancy and sustainable community form for generations to cherish.
Objectives:

- Create incentives, guidelines and regulations as part of the development review process that support the Loop as the heart of an alternative transportation network and ensures that public and private development provides appropriate connections to the Loop with shared-use paths, sidewalks, bike lanes and transit service.
- Ensure that development of the Loop respects and celebrates the environmental constraints and natural features of the land, as well as the historic and cultural resources of the community through careful planning, design and implementation.
- Create and implement a communication plan with a focus on planning, design and construction of the Loop and nearby development that inspires growth that is seen as an asset and is valued by the community and that contributes to the overall wealth and well-being of all our citizens.

Goal 6: Ensure Funding to Develop and Sustain the Loop
Ensure the Loop has funding for planning, development, construction, and maintenance. Encourage regional economic growth through securing funds for the Loop.

Objectives:

- Identify public and private revenue sources.
- Create the governance structure of the Loop.
- Establish relationships with city/state, non-profit agencies to explore partnership opportunities in planning, funding, and advocacy.
- Produce a study about the economic impact of the Loop to increase awareness of the Loop's economic contribution to the community.
- Collaborate with private developers to encourage development complementary of Loop design guidelines.

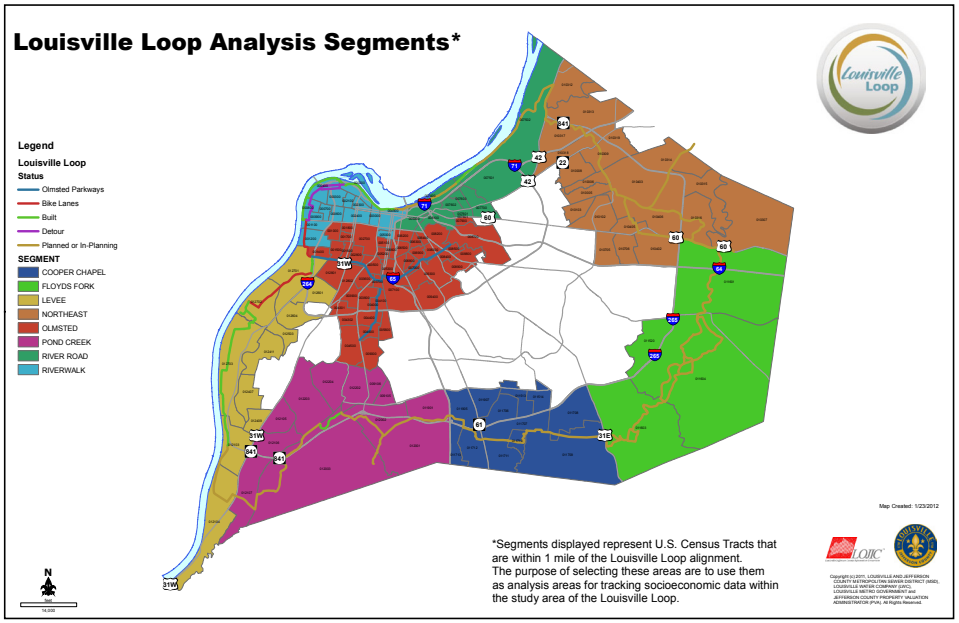
CHAPTER 2

Existing Conditions

DEMOGRAPHICS

The Louisville Loop alignment will traverse a significant portion of Louisville Metro and will impact its population and future development patterns. Twenty-nine urban neighborhoods within the former City of Louisville and eleven small cities in addition to many other communities will have the Loop at their front step. Within this great span of Louisville Metro, the Loop will provide significant access for Louisville's households to parks, worksites, schools, transit, and many more facilities. Due to this impact, some segments will be more heavily used and will function differently than other segments.

The following data was captured using 2010 U.S. Census Data and GIS analysis of LOJIC published data. For data analysis purpose, the Louisville Loop alignment has been divided into segments based on general landscape characteristics and divisions by physical features such as roads and waterways. The analysis areas are based on the U.S. Census tracts that are within 1-mile of the built and proposed Loop alignment. The eight segments include the RiverWalk, Levee, Pond Creek, Cooper Chapel, Floyds Fork, Northeast, River Road, and Olmsted Parkways (See Map on right). Key indicators of measurement included in the chart below include general



population, families, households, and density measures such as families per acre, households per acre, and population per square mile. The results for each segment, particularly the density calculations, can then be compared to Louisville Metro and regional (Louisville Metropolitan Statistical Area) census data.

Socioeconomic. The analysis of socioeconomic data for Louisville Metro includes data from both the 2010 US Census and 5-year Estimates from the 2010 American Community Survey. Each of these surveys captures important details about the magnitude of impact on the overall population of Louisville Metro. Of the 741,096 persons counted in Louisville for the 2010 Census, 66% of the population lives within census tracts that lie within 1 mile of the future Loop alignment. Likewise, 72% of households and 65% of families in the county live within 1 mile of the Loop. The most densely populated segment areas of the Loop include the Olmsted, Riverwalk, and Cooper Chapel. A slight majority of the census tracts (56%) have a median household income below the county median ($45,352) and a majority of census tracts (67%) have a median age above the county median (36.2).

Physical. While the Loop will connect neighborhoods across the community, it will serve to connect those populations to jobs, parks, retail services, schools, transit and multiple community destinations. The Loop will connect directly to 24 Louisville Metro Parks, including 5 Olmsted Parks, and will pass within ½ mile of 72 other Metro Parks. In addition, the Loop will traverse E.P. Sawyer State Park, Waterfront Park, Riverview Park, and the parks of the Parklands being developed by 21st Century Parks, Inc. This will provide the community to greater than 10,000 acres of park lands and other natural areas. Along the way, there will also be 98 Louisville Metro playgrounds. This analysis does not include playgrounds that are within schools, private facilities, churches, or other public access facilities.

Another significant feature of the Loop's reach will be its connection to commercial and retail opportunities around Louisville Metro. Using straight distance measurement, approximately 1,500 retail establishments are within 1 mile of the Loop alignment. A more detailed analysis is needed to determine the specific services and goods available within these establishments.

The Loop:

- 72 parks within ½ mile of the Loop. 1 state park.
- 28 parks that the Loop passes directly through, including 5 Olmsted Parks.
- 98 playgrounds (in public parks) within a ½ mile of the Loop
- 10,845 acres of parkland within ½ mile
- 74 schools within 1 mile of the Loop (42%). 36 are within ½ mile of the Loop (21%).
- 1,596 retail establishments within 1 mile of Loop
- Pass through 29 city neighborhoods and 11 small cities around the county
- 66% of Louisville Metro's population lives within 1 mile of the Loop
- 65% of families within Louisville Metro live within 1 mile of the Loop
- 72% of households in the county live within 1 mile of the Loop
- Majority of census tracts (56%) have a median household income below the county median ($45,352).
- Majority of census tracts (67%) have a median age above the county median (36.2).
- 94% of TARC routes are within ½ mile of the Loop.
- 59% of Louisville Metro's employment occurs within 1 mile of the Loop

TABLE 1 Data represents 2010 US Census Tracts within 1 mile of the Loop. Source: U.S. Census Bureau

ANALYSIS SEGMENT	POPULATION	FAMILIES PER ACRE	POPULATION PER SQUARE MILE	HOUSEHOLDS PER ACRE	FAMILIES	HOUSEHOLDS
OLMSTED	142,279	1.45	4,177.30	3.22	31,639	70,107
NORTHEAST	94,421	0.71	1,696.25	1.12	26,235	41,435
POND CREEK	56,624	.48	1,130.67	0.73	15,325	23,545
COOPER CHAPEL	53,395	0.78	1,825.47	1.17	14,594	21,873
LEVEE	49,774	0.60	1,424.15	0.94	13,423	21,010
RIVERWALK	42,452	1.16	3,233.21	2.56	9,772	21,495
RIVER ROAD	31,746	0.50	1,374.28	1.10	7,384	16,268
FLOYDS FORK	16,535	012	263.08	0.16	4,970	6,483
OVERALL	**487,226**	**0.63**	**1,597**	**1.14**	**123,342**	**222,216**

TABLE 2 Data represents 2010 US Census Regional Data. Source: U.S. Census Bureau

ANALYSIS SEGMENT	POPULATION	FAMILIES PER ACRE	POPULATION PER SQUARE MILE	HOUSEHOLDS PER ACRE	FAMILIES	HOUSEHOLDS
LOUISVILLE METRO	741,096	0.74	1,864	1.21	188,982	309,175
MSA REGION[1]	1,283,566	0.15	368	0.23	337,088	514,214

[1] THE METROPOLITAN STATISTICAL AREA FOR LOUISVILLE (MSA) IS JEFFERSON COUNTY AND 12 SURROUNDING COUNTIES INCLUDING CLARK (IN), FLOYD (IN), HARRISON (IN), WASHINGTON (IN), BULLITT, OLDHAM, SPENCER, MEADE, NELSON, TRIMBLE, SHELBY, AND HENRY.

TABLE 3 Data represents 2010 US Census Employment Data for Census Tracts within 1 mile of Loop. Source: U.S. Census Bureau

LOOP REGION	LIMESTONE BELT SOUTH	FLOYDS FORK	OHIO VALLEY SOUTHWEST	LIMESTONE BELT N.E.	OLMSTED	POND CREEK	OHIO VALLEY NORTHEAST	RIVERWALK	TOTAL
PERSONS EMPLOYED	5,668	2,014	25,884	67,625	99,939	27,469	47,494	118,094	394,187
LOUISVILLE METRO EMPLOYMENT POPULATION (16 AND OVER)									665,859

Background/Contributing Studies

The vision for the Louisville Loop evolved out of the planning process of Cornerstone 2020, the city's comprehensive plan, developed in the 1990s. During the process, three documents developed as sub-studies to the overall comprehensive plan incorporated the vision of the Louisville Loop. In recent years, there have been several studies and projects that have included the Loop as a core element, including significant corridor studies, design guidelines, and wayfinding plan. The following sections provide a general overview of those documents that have served as a central resource and principle reference for the existing and future trail alignment for the Loop.

Louisville and Jefferson County Parks and Open Space Master Plan (1995)

Completed in 1995, the master plan was intended to provide the vision and framework for development of Louisville and Jefferson County's parks, recreation facilities, and open spaces for the next 25 years. The plan outlined four specific goals to provide:

- A system of well-maintained parks and recreational facilities which meets the needs of the residents of Louisville and Jefferson County
- A network of open spaces and greenway corridors which protects significant natural resources
- A parks and open space system which preserves and enhances visual quality, protects historic and archaeological resources, and provides opportunities for education; and
- An open space network which incorporates land needed to protect public health and safety.

A major recommendation of the plan included the addition of nearly 6,000 acres of greenways and regional parkland and over 2,000 acres of local parkland distributed throughout the county in areas of need.

The vision for the Loop arouse out of the Parks and Open Space Master plan. The idea to create linear greenways to connect parks and open space was elaborated within the plan to be a "County Loop" trail linking the Ohio River Corridor, through the Jefferson County Memorial Forest, eastward to Floyds Fork, and then north again to the Ohio River.

Louisville and Jefferson County Multi-Objective Stream Corridor/Greenway Plan (1995)

The purpose of the Multi-Objective Stream Corridor/Greenway plan was to outline a vision and plan for developing an interconnected network of greenways and open spaces along Louisville and Jefferson County's stream corridors. The plan was developed as an element of Cornerstone 2020, the comprehensive plan, and directed by the Metropolitan Sewer District. The greenway plan was developed to complement the Parks and Open Space Master Plan, particularly in areas where greenway trail and recreation facilities were planned, designed, and programmed within greenway areas. The plan iterated an important distinction for greenways when discussing trail usage stating that "not all greenways within the County will contain public-use trails." There were no specific trail alignments conceptually outlined in the plan, however, pilot projects such as the early phases of the Levee Trail were developed around the time the plan was being developed.

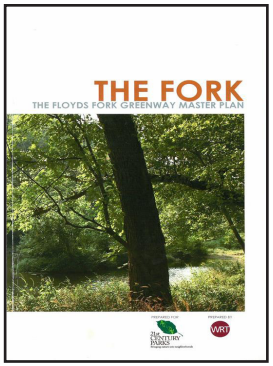
Ohio River Corridor Master Plan (1996)

The Ohio River Corridor Master Plan recognized the importance of the 37-mile corridor along the Ohio River for the future of Louisville and Jefferson County. Developed as part of the Cornerstone 2020 process, the Master Plan created a 25-year vision and policy framework for reconnecting the citizens of Louisville and Jefferson County to the river and its assets. The vision also expanded on the idea to connect people to each other, nature, workplaces, and the overall historical and current culture of the community. It was created over many months of intensive public input and was completed in 1996. The document was never officially adopted, yet many of its concepts were included within the overall Cornerstone 2020 plan. One major concept and a significant influence on the planning for the Louisville Loop was the concept for a "Ohio River Corridor Trail." This trail would serve draw people to the river and enjoy its scenery and assets. The master plan also contained key concepts that should serve as guiding design and planning principles in the development of the Louisville Loop. These include expanding access to and along the River in the form of neighborhood connections and a continuous river corridor trail (the Loop). In addition to focusing community connection through connecting streets and greenways, the plan outlined the use of "activity centers" located at regular intervals (about every 2 miles) to concentrate public facilities, such as parks and plazas, and appropriate private commercial businesses, such as restaurants and marinas, that "would serve as community gathering places along the River's edge."

Cornerstone 2020 Comprehensive Plan (2000)

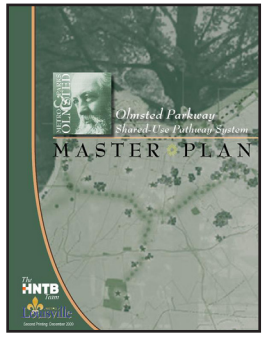
Cornerstone 2020, Louisville's comprehensive plan, was a seven year planning process between 1993 and 2000 that produced a vision for Louisville to become a more livable, attractive, mobile, efficient, and environmentally sensitive community. Study committees within Cornerstone 2020 addressed the current and future planning efforts in several areas, including land use, park space, open space, transportation, economic growth, and open communication between residents, businesses, and public agencies. The committees performed ancillary studies to complement Cornerstone 2020 through plans that focused on areas and concepts such as the Ohio River Corridor, the Jefferson Memorial Forest, the Portland Wharf, parkways, open spaces, recreation, flood control, water quality, bicycle and pedestrian paths, the connections between people, jobs, and housing, and other specific areas of community life. As an update to the 1979 Comprehensive Plan, Cornerstone 2020 attempted to set a new course that emphasizes building design within context, compatibility of development with the community's environmental goals, assuring access to transportation choices, and redevelopment of distressed neighborhoods. The concept for the Louisville Loop arose in the planning process through the ancillary studies of the Bicycle and Pedestrian Circulation Plan (1994), Parks and Open Space Master Plan (1995), Multi-Objective Stream Corridor/Greenway Plan (1995) and the Ohio River Corridor Master Plan (1996).

The Fork: The Floyds Fork Greenway Master Plan (2008)



The Floyds Fork Greenway Master Plan illustrates the grand vision of a public-private partnership to create more than 3,200 acres and 19 miles of continuous recreation and open space in the eastern portion of Louisville Metro. The master plan provides a "framework, or "blueprint", for the long-term development of The Fork predicated on permanent public access and design excellence." Developed by the firm Wallace, Roberts, and Todd of Philadelphia for 21st Century Parks, the master plan has been the recipient of several awards, including the "Honor Award in Analysis and Planning" by the American Society of Landscape Architects. When completed, the Floyds Fork area will include numerous opportunities for outdoor recreation, education, and environmental stewardship through the Parklands of Floyds Fork, a system of high-quality greenways, trails, and parklands. Beginning at Shelbyville Road in the north and extending to Bardstown Road in the south, approximately 19 miles of the Louisville Loop will traverse the area and parallel the Floyd Fork stream.

Olmsted Parkways Multi-Use Path Master Plan (2009)



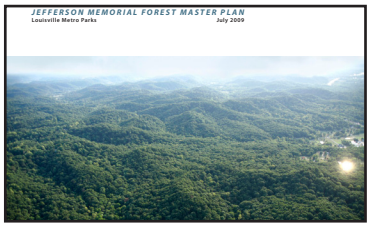
The Olmsted Parkways Multi-Use Path Master Plan is envisioned to carry forward Frederick Law Olmsted's design of connecting Louisville's great ring of historic parks through its parkways. The Olmsted Parkways Master Plan aims to renew parkways as a community resource through the design and implementation of a continuous multi-use path connecting Eastern, Southern, Algonquin, and Southwestern Parkways. In addition to the plan outlining the path alignment, there are design details pertaining to the preservation and renewal of the parkways' character, the addition of parkway trees and vegetation, infrastructure including curbs, utility lines and drainage, landscape character and the creation of a sense of continuity including visual separation from parking lots or other commercial uses inconsistent with the original Olmsted vision, lighting improvements, and linkages between the parks, parkways, schools, downtown and university. The Parkway system connects 24 Louisville neighborhoods in addition to numerous destinations and serves as a key element of the Loop's mission to connect the entirety of Louisville Metro to its natural and cultural landscape and provide greater opportunities for physical activity and overall improved quality of life.

Louisville Loop Trail Standards Manual (2009)

Louisville Metro Parks recognized the need to establish a consistent signage and overall design standard associated with the Louisville Loop. As a result, they created the Trail Standards Manual in order to celebrate the uniqueness of the different regions through which the trail passes and to find a way to provide the visual cues for the user experience throughout the entire system. The design standards provide the regulatory guidelines for development of the Loop and a unifying character to the system regardless of the location of the trail. These standards describe, both graphically and in text, the intended standard to which the entire 100-mile loop is to be constructed. They are meant to ensure that the trail functions as one cohesive system, regardless of when segments are constructed. The standards are respectful of the unique identity of individual trail segments such as the Levee Trail, Floyd's Fork Greenway and RiverWalk. These standards are based on current state and national documents in-

cluding the AASHTO Guide for Development of Bicycle Facilities, (AASHTO, 1999), the Manual for Uniform Traffic Control Devices (MUTCD) and the Kentucky Transportation Cabinet's Highway Design Manual (Exhibit 1500-01). The Louisville Loop Trail guidelines use these documents as a baseline for minimum conditions, and are intended to facilitate creative solutions to a wide range of bicycle and pedestrian facility types. It is recognized that when facilities are maintained by the Kentucky Transportation Cabinet, the State's design guidelines will apply, and that Louisville has the potential to exceed these minimum guidelines where conditions warrant on facilities within their jurisdiction.

Jefferson Memorial Forest Master Plan (2009)



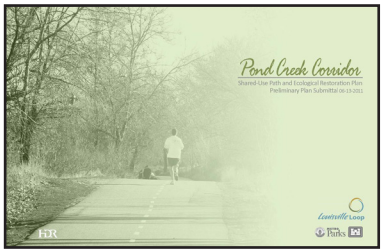
In July 2009, Louisville Metro Parks unveiled a new master plan to guide future improvements to the 6,191-acre Jefferson Memorial Forest in the Fairdale area. The master plan provides a detailed vision for future land acquisitions, public facilities and nature/adventure programs at the Forest. In addition, this plan also includes identification of a preliminary route and alignment of the Louisville Loop. The inclusion of the Loop in the master plan considers how various sections of the Forest will connect to the Loop alignment, particularly from amenities such as Tom Wallace Lake, Moreman's Hill, the Welcome Center, the proposed Jeff Jack Resource Management Center, and various hiking camping, and mountain biking areas. Portions of the Loop through the Forest area will also include an equestrian trail alongside the paved multi-use path accessed at the Paul Yost and Equestrian Center sites.

Northeast Segment of the Louisville Loop Master Plan and Design Guidelines (2012)

From 2007 through 2012, Louisville Metro Parks worked with the public and leaders from neighborhoods and small cities in the northeastern areas of Louisville Metro to identify the preliminary alternative routes for this area's segment of the Louisville Loop path. The study area for this plan included the eastern portion of Jefferson County from I-264 to Oldham County and from the Ohio River to I-64. Due to the large scope of area and need to analyze data and gather public input, the area was divided into three smaller regions: Region 1 between the Ohio River and I-71; Region 2 between I-71 and Anchorage; and Region 3 between Anchorage and I-64. The Northeast segment will connect two other planned segments of the Louisville Loop: the route through the Parklands of Floyds Fork and a shared-use path in the Ohio River Valley Northeast region. The planned alignment for the Loop delineated in the Northeast Segment plan will begin in Prospect and will terminate at Beckley Creek Park (former Miles Park) at the head of the Parklands of Floyds Fork project. The planning process inventoried and analyzed the area's general built environment character, major community facilities, activity nodes (specific areas where people live, work, or recreate), potential opportunities, and potential points of conflict.

Over the five year period to develop the master plan, Metro Parks led a comprehensive planning process determined by proactive engagement of the community with professionals in path development. The plan documents various issues identified in the process such as how the path would be routed through historic communities, be incorporated into neighborhoods and add value to the area. One of the challenges of the plan was the coordination among those entities with control of rights-of-ways such as railroads and interstate corridors. From 2009-2011, Metro Parks met with concerned citizens, community groups, CSX, and KYTC to work through these issues in order to designate conceptual route alternatives. The concept was built around the model that one defined route would pass through the region with multiple connections feeding into the main route. The main route would be the shared-use path and the connections are made through the sidewalks, trails, bike lanes, and other pedestrian facilities connecting the Loop to community destination points.

The Pond Creek Corridor Shared-use Path and Ecological Restoration Plan (2011)



The Pond Creek Corridor plan examined the best location for the Loop alignment beginning at the southern end of the future extension of the Ohio River Levee Trail on Watson Lane and ending at National Turnpike and Fairdale Road in Fairdale, a direct distance of just over 9 miles. The study area for the shared-use path portion of the project included a 2-mile-wide region centered on the Metro Park's preferred route, which was identified in the 2009 Pond Creek and Mill Creek Recreational Concept Plan.

The Plan included a conceptual analysis of the possible shared-use path alignments within the Pond Creek corridor along with the identification of potential ecosystem restoration opportunities along Pond Creek and initial determination on of environmental, cultural, historical, and archaeological resources within the path and ecosystem restoration zones.

Three distinct options for aligning a shared-use path from Watson Lane to National Turnpike were developed based on feedback from a series of public meetings, Metro Parks staff input, and sub-route analysis. The alignments were assembled using the best of the 49 sub-routes. The alignments take different approaches to crossing major barriers, such as the Dixie Highway and the Gene Snyder Freeway. Each alignment has positives and negatives, striking different balances between user experience, safety, cost, land acquisition, and environmental sensitivity. A preferred route will be developed during a design and construction phase of the project.

Louisville Greenways – South Points: A Greenways Master Plan for South and Southwest Louisville (2012)

The South and Southwest Greenway Master Plan was undertaken by Louisville Metro in December 2010 as a first step toward creating a system of shared-use paths and soft-surface trails that would encourage people to improve their fitness and health by exploring the region's natural and historic resources and using travel ways for non-motorized transportation. The master plan was funded through a federal grant by the Centers for Disease Control. The plan's study area encompassed a broad area over 98 square miles in the southwestern portion of Louisville.

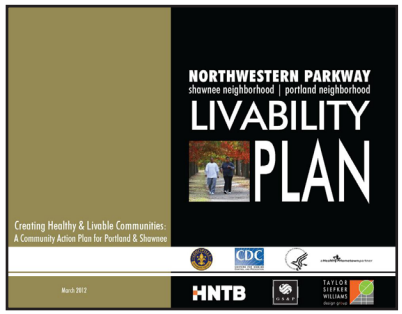
The 14-month period to develop the plan included a comprehensive inventory and analysis of the area's historic, archeological, cultural, biological, and natural resources to assess the opportunities and constraints associated with the development of a greenway network. It included significant public input including several public meetings, workshops, focus group discussions with various stakeholders including youth, community survey, and detailed discussions with a Technical Advisory Group. In addition, the project team reviewed several existing studies review to gather information and recommendations from previous work to be incorporated in the recommendations, where feasible.

Several key goals and objectives were developed to guide the planning process. They were divided into the following categories: recreation and alternative transportation; safety; fitness, health and quality of life; environmental stewardship; and improving economic health. At completion of the inventory and analysis phase, the project team developed a hierarchy of alternative paths and trails to meet the goals and objectives of the master plan. Special considerations were given to ecologically, historically and culturally sensitive areas. Routes were located to provide connections to the Louisville Loop, neighborhoods, schools and business centers as well as area parks.

In addition to the alternative routes map, the Master Plan provides several key resources for implementing the southwestern system and beyond. There are detailed guidelines for such elements as facility design guidelines, marketing and branding guidelines, preliminary costs estimates, and general criteria for prioritizing the construction of paths and trails. An operations and management plan within the Master Plan has specific application for the South and Southwest Greenways, but may be used as a guideline establishing O&M practices for all trails and paths in Louisville, including the Louisville Loop.

Northwestern Parkway Livability Plan (2012)

The Livability Plan is the result of an opportunity made available to two Louisville neighborhoods, Shawnee and Portland, as part of the $7.9 million obesity-prevention grant received by the city of Louisville from the U.S. Department of Health and Human Services and the Centers for Disease Control and Prevention for its



Louisville Putting Prevention to Work (LPPW) program. The purpose of the plan is to identify potential solutions for a detour route due to frequent flooding and unsafe trail conditions on the RiverWalk. City officials made the decision to permanently close the section and detour the route along Northwestern Parkway and Bank Streets in 2010. Louisville Metro Parks is working with the U.S. Army Corp of Engineers to identify solutions for fixing the damaged portion of the trail. Upon completion of their assessment, City officials will evaluate all possible options about the Loop's route through the area, including the options presented in the Livability Plan.

The plan encompasses the Northwestern Parkway corridor between 29th Street in the east and Market and Duncan Streets on the south. Louisville Metro Parks staff and their consultant worked with an advisory committee and the community to identify concerns and to develop an action plan to address conditions that affect the community's livability. The Plan outlines the various prioritized issues raised by the neighborhood including speeding, sidewalk connections, lighting and security, maintenance and services, bicycle facilities and programming, community programming, land use, and historic character. The plan provides a discussion of each priority issue, community comments, and recommendations for action.

One of the key elements of the Livability Plan is the context-sensitive bicycle and pedestrian facility design options for the Parkway. These recommendations are intended to provide an overall definition of future conditions and to illustrate how these facilities can be integrated into the historic fabric of the Parkway. The Parkway varies in character and right-of-way width, with some sections containing pavement widths as much as 64 feet. There are four "zones" with treatment alternatives devised to introduce "complete street" options that safely accommodate all users. The plan recommends several types of bicycle and pedestrian facilities, many of which have never been used in Louisville before, including buffered bike lanes and cycle-tracks. It presents typical roadway cross sections of existing and recommended treatment and where appropriate, outlines a phased approach to future improvements.

The Livability Plan will become an important resource to the address the long-term flood route for the Loop. The plan process engaged residents from both Shawnee and Portland in a discussion that reached beyond the Louisville Loop and should serve as a reference to weave into solutions to address the community's desire to make the neighborhoods a more livable and healthier place.

ACTIVE TRANSPORTATION SYSTEM

The Louisville Loop is a transformative key to an integrated transportation system of sidewalks, transit, and bicycle facilities for our city and serves to enhance the health and quality of life for our citizens. The focus on the Loop as a tool for planning a sustainable transportation system for future generations depends on a cooperative approach from all local transportation and land use planning units including: Planning and Design Services, Economic Growth and Innovation, Public Works, Metro Parks, KIPDA, TARC, and KYTC.

Metro Parks is the agency responsible for planning, designing, and constructing the Louisville Loop. Transportation planning functions in Louisville currently operate under the responsibility of Louisville Metro Public Works (local) and KIPDA (regional). Public transportation is the responsibility of the Transit Authority of River City (TARC). Each agency performs designated roles to plan and manage an efficient and safe transportation network. At the local level, the Engineering Services group within Public Works provides transportation planning functions for the city, including design and construc-

tion of facilities from sidewalks to bridge replacements. They perform plan review, right-of-way permitting, traffic engineering, bicycle and pedestrian planning, project engineering, and other functions related to facilities within the public right-of-way. At the regional level, KIPDA is the federally designated Metropolitan Planning Organization and is responsible for coordinating all regional planning functions and serves as the funding clearinghouse (from State and Federal sources) for the Metro Louisville area.

Bike Network Connection

In recent years, Louisville has made continued efforts and commitment to making itself a great cycling city. Investments in bicycle facilities, including the Louisville Loop, along with the development of programs aimed to educate and engage the community cycling has served to increase ridership and overall awareness of this mode of transportation. In 2007, Louisville reached the bronze level "bicycle-friendly community" as defined by the League of American Bicyclists (LAB) judging a community's effort to address the five "e's" of Engineering, Education, Encouragement, Enforcement, and Evaluation & Planning. The goal established in Louisville's first bike summit in 2005 was to achieve gold by 2015. In order to achieve this, Louisville's bicycling program, Bike Louisville, intends to focus efforts around the criteria established by the LAB, in addition to expanding its bicycle network. The Louisville Bicycle Master Plan has two primary goals: increase bicycle ridership and decrease injuries and fatalities. The plan outlines a number of recommendations to achieve these goals as well as a guide to expand the network for the next 20 years.

Louisville's current bicycle network is 195 miles (Table X). These facilities range from bike lanes to multi□use trails. Table X describes each bicycle facility and its respective extent of length in the community. The bicycle network currently reaches a number of areas, but there are many more areas without bicycle facilities, particularly within two-miles of central Louisville and the University of Louisville. Understanding these areas will better help Bike Louisville continue to plan where to close the gaps in the cycling network and what type of bicycle facilities should be installed. The next step in understanding where and how the bicycle network is expanded will focus on the bicycle system network with a defensible, data-driven prioritization process that incorporates cyclist demand, socio-economic measures, and land use in order to make the most of limited funds and to ensure that improvements best meet needs.

Table 4: Miles of Facilities Existing for Louisville Loop and Bicycle Facility Network

Facility Type	Existing
Bicycle Lanes[1,3]	48
Shared lane pavement markings (Sharrows)	2.6
Other on-road bicycle facilities	0
Signed local street connections2	89.83
Shared-use trails[3]	28.7
Other off-road bicycle facilities	26
Total Network	**195**

1. For on-road bicycle facilities, total miles represent bicycle lanes on each side of the roadway
2. Signed local street connections include shared roadways with bicycle route signs but no other designated bicycle facilities.
3. Approximately 25 miles consists of the Louisville Loop, including 3.5 miles of marked bicycled lanes.

Connections to Other Trails

The Louisville Loop will connect to significant pedestrian, bicycling, and equestrian facilities throughout the county. Currently, within Metro Parks, there are over 40 miles of paved paths in 24 parks. Many of these trails will be incorporated as part of the Louisville Loop or become part of a community-wide greenway network that connects neighborhoods. These should include the potential for future greenways, mountain bike trails, hiking, and equestrian trails.

Louisville has 20 miles of mountain bike trails. Several miles are within urban areas of Louisville such as the Cherokee Park trail and Waverly Park. The trails have been revamped in partnership with the Kentucky Mountain Bike Association. There will be opportunities to increase off-road soft trail mileage for mountain biking along the Louisville Loop route and provide a unique recreational amenity.

Another form of trail cycling that has grown in popularity in recent years is cyclo-cross. Cyclo-cross bicycling is a form of cycling using a course featuring pavement, wooded trails, grass, steep hills and obstacles requiring the rider to quickly dismount, carry the bike while navigating the obstruction and remounting. Recently Louisville has made a name for itself by hosting a national cyclo-cross race. The race is known as the USGP and has attracted international talent. Louisville hosted the Cyclo-Cross World Championships event in February 2013 at Eva Bandman

Park, which was the first time this major event has been hosted in the United States. Eva Bandman Park is located directly adjacent to the Louisville Loop approximately one mile northeast from mile 0 of the Loop and is expected to continue being a popular destination for sport enthusiast as well as a premier venue in the local, regional, national, and international cyclo-cross circuit of competitions.

Soft surface trails are a complementary component of the Louisville Loop and serve as both additional pedestrian connectors and as recreational facilities for hiking, trail runners, mountain biking and equestrian use, where appropriate. These trails provide access to natural resources in a sustainable way while protecting the land, soils, habitats, native species, significant historical areas, vistas and geological formations. Soft surface trails are featured amenities at a number of parks within the Loop corridor. Currently, several miles of hiking trails exists in public parks such as Cherokee, Iroquois, and Jefferson Memorial Forest and will be an amenity in the Parklands of Floyds Fork. Equestrian trails are being developed in the Jefferson Memorial Forest and are planned for the Parklands project.

Transit

Transit Authority of River City's (TARC) recognizes that the Loop will be used for both recreation and transportation purposes and serve as a critical connector of neighborhoods, activity centers, and parks. All TARC full-size buses are equipped with bike racks on board providing the option for users to carry their bikes to their destination. Currently, the built Loop alignment passes within a ½ mile of 85% of bus routes. The future alignment of the Loop will pass within a ½ mile to 94% of the bus routes. The routes with the highest frequency (60 or more trips per day) and greatest ridership will also be directly connected to the Louisville Loop.

There are segments of the future Loop alignment that will require further effort to assure the connectivity with transit. The three eastern segments in the River Road, Northeast, and Floyds Fork areas have limited transit options. TARC's priorities to the Loop include assuring good connection between Loop and existing transit routes, improving pedestrian and bicycle connections to transit routes, improving transit facilities to accommodate pedestrian and bicycles, especially to meet ADA requirements by bringing people to the Loop by bus, assuring TARC is involved in road improvement projects that affect bus circulation and bus stop location. Coordination between TARC and Loop planners will be critical to assure all these elements are addressed.

Regional Impact

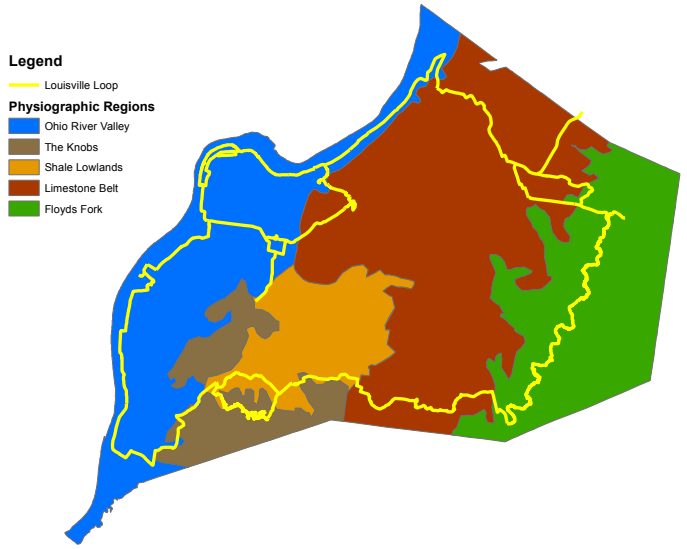
Due to the Louisville Loop's broad scope and comprehensive reach, once built, it will form the framework of a regional trail system. As a recreation and transportation facility for Louisville Metro, its impact will greatly affect the quality of life for the residents of the Louisville Metro region. However, in the long-term, one of its benefits will be its central location and connectivity within a regional trail system tied to adjacent counties within the Kentuckiana area. Within the last few years, significant trail systems have been planned, designed, and implemented along the Ohio River on the southern Indiana side connecting New Albany, Clarksville, and Jeffersonville to the terminating point of the Big 4 Bridge, the start of the Louisville Loop. Once completed, the Ohio River Greenway and the Big 4 Bridge will provide the critical juncture of a developing regional trail system. Further northeast of Jefferson County, in recent years planners in Oldham County have been planning and designing trails for an Oldham County greenway system. In March of 2008, the Oldham County Fiscal Court approved the Oldham County Bicycle, Pedestrian, and Greenway Trails Master Plan. One of the key features of the plan is the concept of the Interurban Greenway which would connect Oldham County to Jefferson County and the Louisville Loop.

CHAPTER 3

Louisville Loop System

Cornerstone 2020, Louisville Metro's comprehensive plan, identified five physiographic regions as a unique element to be enhanced in Louisville. Physiographic regions are defined by their distinct topography, geology, native flora and fauna, and history. These regions have provided both a palette of materials for the Loop that can be used to distinguish the regions, as well as oppor¬tunities to provide educational interpretation of those regions. Those regions include:

- **Ohio River Valley** - Much of Louisville exists within this valley which "is characterized by level, to sloping alluvial soils on terraces and bottoms along the Ohio River."
- **Knob Hills** - Found mostly in the southwestern portion of the City, these areas include the ridges and steep hills adjoining the Ohio River Valley. The Jefferson Memorial Forest and Iroquois Park are examples found within this region.
- **Shale Lowlands** - This is an area of level, poorly-drained soils which occur on the former site of an ancient lake bed to the north and east of the Knob Hills region.
- **Limestone Belt** - This region is characterized by level to steeply sloping soils formed from limestone and covers a major portion of Jefferson County. Included in this region is Cherokee Park.
- **Floyd's Fork** - this region is characterized by "diverse landscape of gently sloping to steep uplands in the extremely eastern portion of the County."



These regions educate the user of each region, they create awareness of the unique landscape character of Louisville and Jefferson County. While the regions define the design and

landscape elements of the Loop planning, this Master Plan recognizes that each trail segment lies within a specific region. Trail segments may cross multiple physiographic regions. The summary below provides a general overview of the various corridors and trail segments of the Loop. The maps displayed in this chapter reflect the constructed, preliminary, or preferred conceptual and various alternative routes determined during segment master plans and are subject to change during design/build phase of the project.

Ohio River Valley – RiverWalk Trail

Length: 9 miles (approximately)
Physiographic Region: Ohio River Valley
Character: Urban, Industrial, Waterfront, Historic
Highlights: Downtown Louisville, Parks (Waterfront, Lannan, Shawnee, Chickasaw), Historic Neighborhoods and their Landmarks (Portland, Russell, Shawnee, Chickasaw), Public Art, Historic U.S. Marine Hospital, Portland Canal and the McAlpine Locks and Dam, Louisville Wharf, Portland Wharf

The RiverWalk is one of the original trail segments of the Louisville Loop. Most importantly, it is the first segment of trail along Louisville's downtown waterfront heading west. Since 1996, this approximate 9 mile off-road shared use path has connected Waterfront Park to Shawnee Park providing the community a first-hand glimpse of some of Louisville's most defining elements. The backdrop of the Ohio River Valley as its defining character, it carries the user along the path providing glimpses of Louisville's river heritage.

Description: Starting at the Big Four Bridge, the RiverWalk traverses Louisville waterfront areas where the experience includes such highlights as the Waterfront Park with the Louisville Wharf, home of the historic Belle of Louisville steamboat; Louisville's founding site, Corn Island; the Portland Canal, and the McAlpine Locks and Dam. These sites provide users along the RiverWalk direct contact with this heritage. Interpretive signage along the way informs users about historic and natural elements, including the city's historic beginnings at Corn Island, flooding, riverboat commerce and travel, the U.S. Marine Hospital during the Civil War, and other important features. Starting at the Portland Wharf, the trail continues west along the river and arrives at Shawnee Park, one of the original Frederick Law Olmsted designed parks.

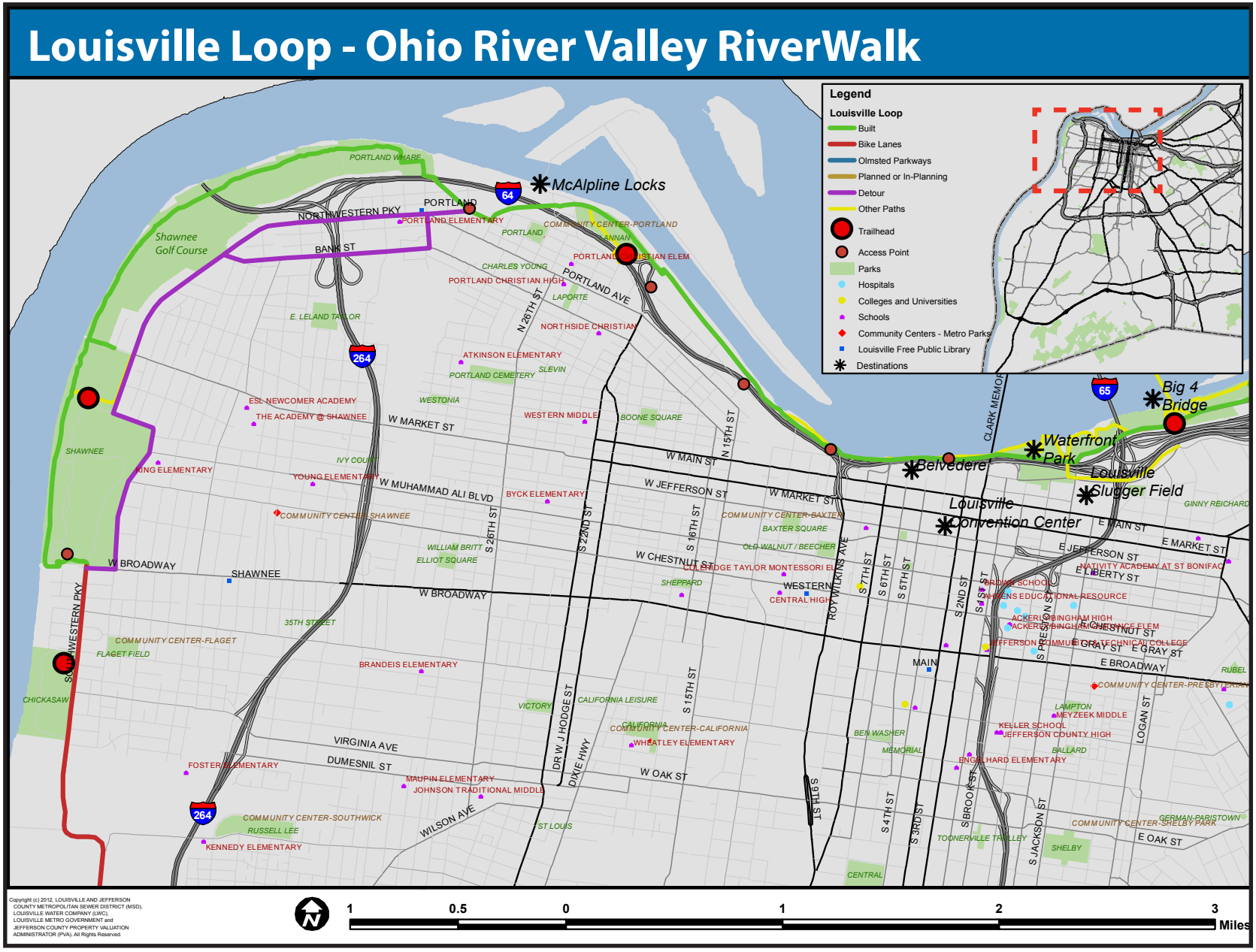
Destinations: The RiverWalk provides direct connection for residents and visitors to Louisville's Downtown and all of its amenities and events. Within 1000 feet of the Loop along the waterfront in the downtown area, users may access the rich array of museums and cultural events along West Main Street, the Belvedere and its many cultural events, Waterfront Park, and Louisville Slugger Field, hotels, and some of Louisville's largest employment locations. Many community facilities and neighborhood amenities lie within one-mile of the RiverWalk, with safe and direct access.

Community Facility Destinations w/in 1 Mile of RiverWalk:

- 22 schools (primary and secondary)
- Jefferson County Technical School Main Campus
- 5 Community Centers
- 4 Public Library Branches (including Main Branch)

Challenges: As the oldest trail segment, the RiverWalk portion presents several challenges. Modern standards for trail planning and access merit a review of conditions along the trail. These conditions and design standards include such issues as access points, trail width, location, connectivity and other defining amenities. In addition, due to changing conditions over time and other contributing factors, flooding and erosion have

Louisville Loop - Ohio River Valley RiverWalk

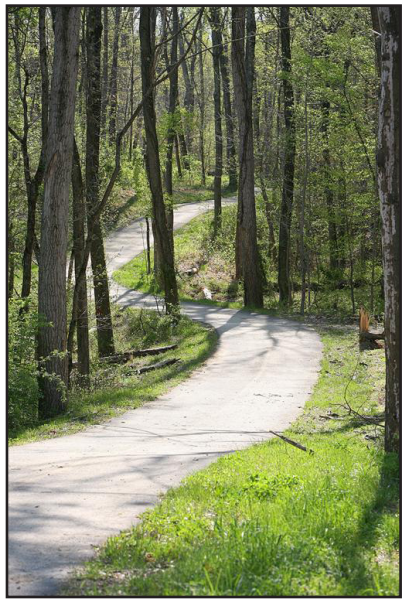


compromised the full use of the original alignment of the RiverWalk trail, resulting in temporary closure of unsafe trail sections.

Opportunities: The RiverWalk presents many unique opportunities as the "gateway" to the city. The adjacent areas of high residential and employment density along with the region's attractions in the Downtown core, it will be essential to create a world class trail out of the River-Walk. One of the first opportunities is to evaluate and assure a contiguous and inviting environment along the Louisville Wharf to assure bicycle and pedestrian safety and comfort. This will include the need to identify and create safe connections from the downtown and adjacent neighborhoods through protected routes. Improvements to upgrade the width, lighting, and other amenities are needed to create an world-class facility in the downtown area, especially in the trail portion from 4th Street west to 9th Street under Interstate 64.

Ohio River Valley –Levee Trail

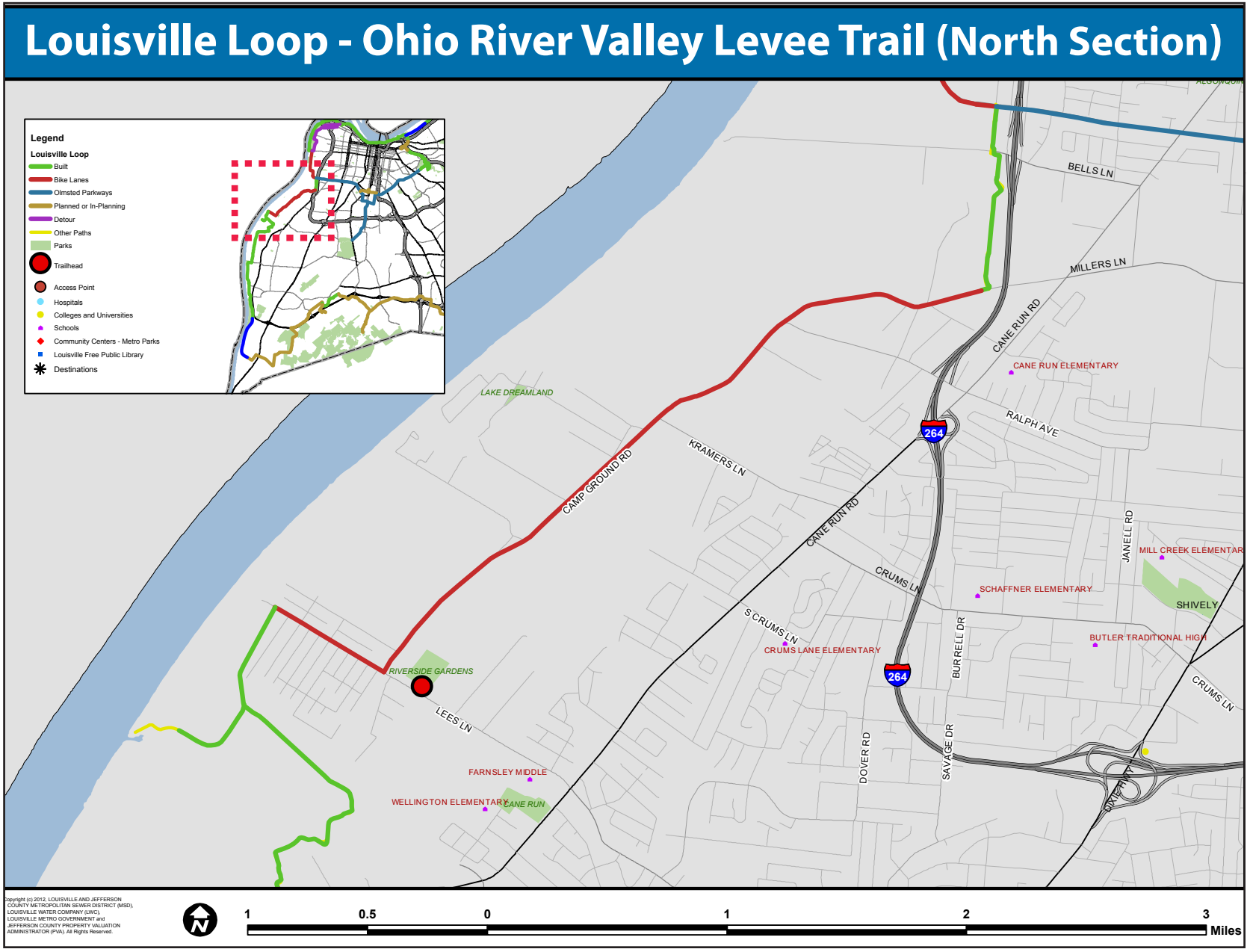
Length: 15 miles (approximately)
Physiographic Region: Ohio River Valley
Character: Pastoral, Industrial, Waterfront, Historic
Highlights: Riverview Park, Riverside Park at Farnesly-Moreman Landing, Mill Creek Bridge, Rubbertown, Ohio River Views

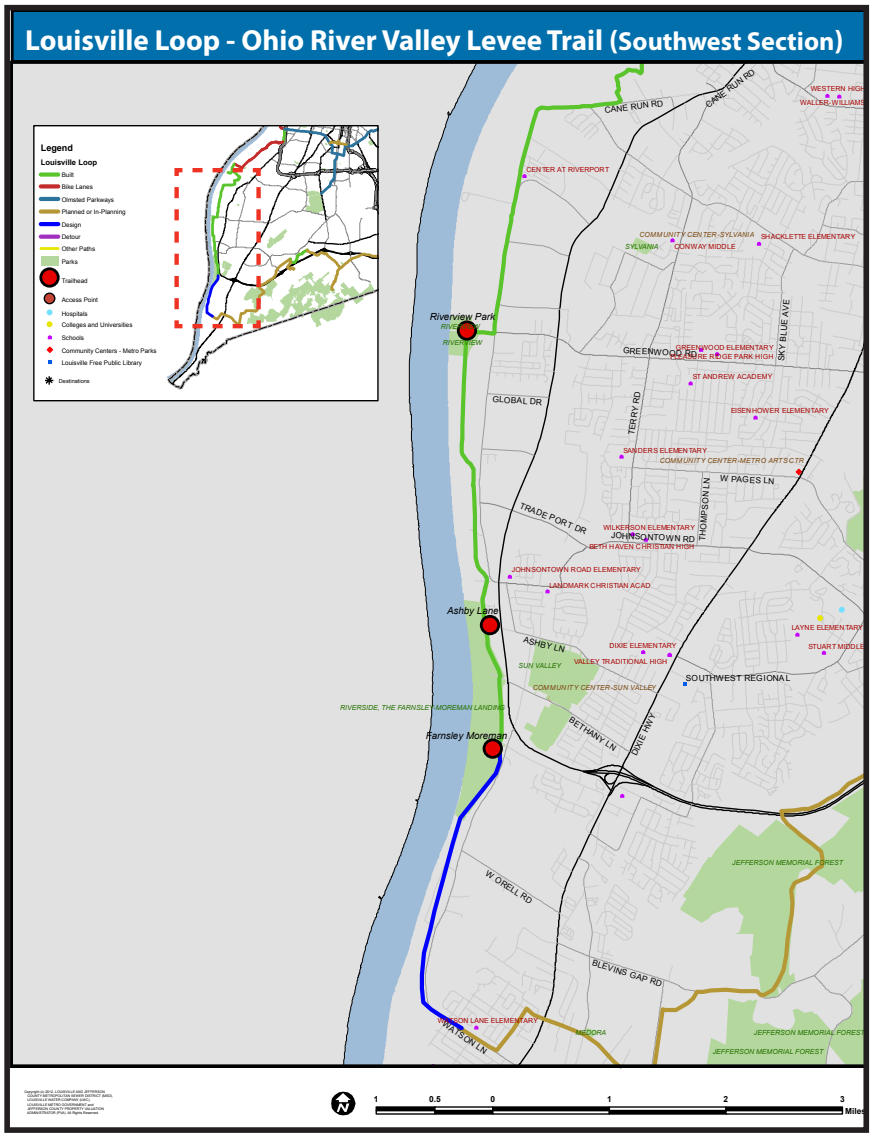


The Levee Trail section of the Louisville Loop captures how people have connected with the river for thousands of years. Archeology in the corridor documents the story of ancient civilizations on the riverbanks, the highly fertile soils of the agricultural history and the river-related transportation of the modern day from industry to recreation. Along the approximately 15-miles of trail are some of the most industrial portions of the city within minutes of panoramic views of the Ohio River. The Levee Trail section of the Loop connects parks and areas throughout the Ohio River and Mill Creek valleys and tells the story of the river and its people. Historic Chickasaw Park connects to the rich heritage of the Olmsted legacy and the African-American heritage of the community. Through the Rubbertown section, the landscape represents Louisville's long economic ties to the river from wartime economies and post-war market products in the chemical and rubber product industries. This dynamic corridor of the Louisville Loop is the most established of the segments with much of the trail in operation since the mid-1990s. A significant portion of the alignment is atop the flood levee opened in 2000; however portions lie within the street right-of-way or are on a shared-use path. The Levee Trail provides the community a direct link to the southwest of Louisville from its central core.

Description: The Levee Trail segment of the Louisville Loop begins at the 10-mile marker near the intersection of 41st Street and Algonquin Parkway. This segment interfaces with off-road trail segment along Algonquin Parkway, linking with the RiverWalk in the direction of Downtown and east to the neighborhoods along the Olmsted Parkways Algonquin, Eastern, and Southern. A one-mile off-road section between I-264 and the industrial properties on the west link the Parkway to Campground Road. Beginning at Campground Road, the trail becomes on-road bike lanes for the next three miles. From Lees Lane south, the trail then begins its interface atop the Levee wall and other off-road portions for the next 8.3 miles before arriving at Farnsley-Moremen Landing, an historic homestead and Metro Park. Near the 15.5 mile marker and the Mill Creek crossing, one of the Loop' highlights is the new single-span Mill Creek Bridge, one of the Southeastern United States' longest spanning pedestrian/bicycle bridges. The new segment of the Loop connects the RiverWalk to the Ohio River Levee Trail via a series of on and off-street facilities that totals 6.5 miles in length. A significant highlight of the Levee Trail experience is the arrival at mile-marker 22.5 and Riverside, the Farnsley-Moreman Landing. By 2013, the trail will extend 2.5 miles along the levee south at Watson Lane and Dixie Highway before eventually going east to Jefferson Memorial Forest.

Louisville Loop - Ohio River Valley Levee Trail (North Section)





Destinations: The Levee Trail provides many opportunities for the community to access parks, worksites, and contiguous miles of off-road bicycle and pedestrian facilities. In addition to the industrial campuses of Rubbertown, the Levee Trail section passes by approximately three miles of the industrial complex of Riverport an approximate 2,500 acre industrial park of manufacturing and distribution companies. Between the two industrial areas, over 10,000 people are employed. The Loop provides employees both transportation and recreation options. Riverview Park Trailhead near mile-marker 14.5 is the gateway to the adjacent park Riverview, complete with a boat ramp, playgrounds, and direct views of the river. Midway between Riverside and Farnsley-Moreman Landing is the popular destination for bicyclists and families, Mike Linnig's Restaurant. The final destination directly on the Levee Trail is Riverview, the Farnsley-Moreman Landing. This Louisville Metro Park facility is a 300-acre historic site on a 19th Century river farmstead that now provides Louisville some of the most spectacular views, wedding facilities, community garden, historic gardens, and center of community events.

Community Facility Destinations w/in 1 Mile of Levee Trail:

Neighborhoods: Valley Station, Valley Village, Kosmosdale, Pleasure Ridge Park, Sylvania, Shively, Lake Dreamland, St. Denis, Chickasaw

- 8 schools (primary and secondary)
- 1 Community Centers
- 7 public parks

Challenges: Even though the Levee Trail has been completed and connects to downtown, segments of the trail's on-road facility exposes the pedestrian and cyclists to potentially dangerous conditions. The Campground Road section currently exists as on-street bike lanes with no sidewalks. Funding has been identified to separate this from the often heavy truck traffic. Another challenge is the need to connect into the neighborhoods. Currently, many of the access points along roads lack safe facilities or direct connection for safe routes to schools, neighborhoods, parks,

retail services, and other destinations internal to the Loop. Finally, due to the reality of much of the corridor lying adjacent to industrial properties, there will be a need to soften the landscape with tree plantings, landscaping, and other means to provide a more welcoming facility for all users.

Opportunities: Future connections to adjacent areas will be possible through the implementation of the greenway and trail network planned in the 2012 South and Southwest Greenway Master Plan. The connection to the Loop from these trails and greenways will provide new economic opportunities at nodes such as Ashby Lane, Johnsontown Road, and Watson Lane, among possible others in this region. These efforts support the vision of creating southwest Louisville as a destination for recreation and cultural pursuits. The community will also have alternative transportation options to arrive at worksites along the corridor, including Riverport and Rubbertown industrial parks.

Knobs/Shale Lowlands

Length: 13-20 miles (conceptual)
Physiographic Region: Knobs/Shale Lowlands
Character: Pastoral, Forest, Agricultural, Village
Highlights: Jefferson Memorial Forest, Pond Creek, Fairdale village, scenic landscape

The Knobs/Shale Lowlands segment will continue the Loop alignment away from the Ohio River Valley as it transitions into the unique landscape around the Jefferson Memorial Forest, at 6,218 acres the largest urban forest in the United States. The Pond Creek corridor, the Forest, ponds/wetlands, and pastoral farms provide a scenic experience for the community. The trail routing developed as part of the takes advantage of these landscapes. This region will move from low, flat terrain near the river to the hills and topography near the forest and into the low wetlands north of the forest. Along the way, the Loop will provide direct connections to the Jefferson Memorial Forest, the retail services and amenities of Fairdale, the future worksites of the Renaissance Zone, and several schools and parks.

Description: Upon leaving the Ohio River Valley region heading east from Watson Lane at Dixie Highway, the Loop user will enter one of Louisville's most unique regions. This region is home to a variety of landscapes with the combination of farmland, forested hillsides, streamside, and wetlands. The 2012 Pond Creek Corridor Shared-Use and Ecological Restoration Plan considered several potential routing options as part of Metro Park's study of the region. They recognized four zones for potential alignment of the Loop through the region. Zone 1 is considered as part of the Ohio River Valley Region starting from Watson Lane and ending around Blevins Gap Road. It is near Blevins Gap Road where the Knobs region begins. Zone 2 includes the area from Blevins Gap Road to Stonestreet Road. Zone 3 includes Stonestreet Road to Penile Road/Blevins Gap Road (eastern section), and Zone 4 is from Fairdale Road east to National Turnpike. The Plan identifies multiple route options in each of the zones in order to provide information necessary to determine a preferred alignment as the projects from planning to design.

Destinations: Jefferson Memorial Forest will be the feature destination for this region with its vast acreage of natural settings for active and passive recreation as well as environmental education programs. Fairdale, an unincorporated area of Louisville Metro and directly adjacent to the Forest, provides a variety of retail services, parks, schools, library, churches and residential neighborhoods. The final alignment of the path has not been determined, however, all possible routes considered in the Pond Creek Corridor plan indicate that these two resources will be central to the Loop.

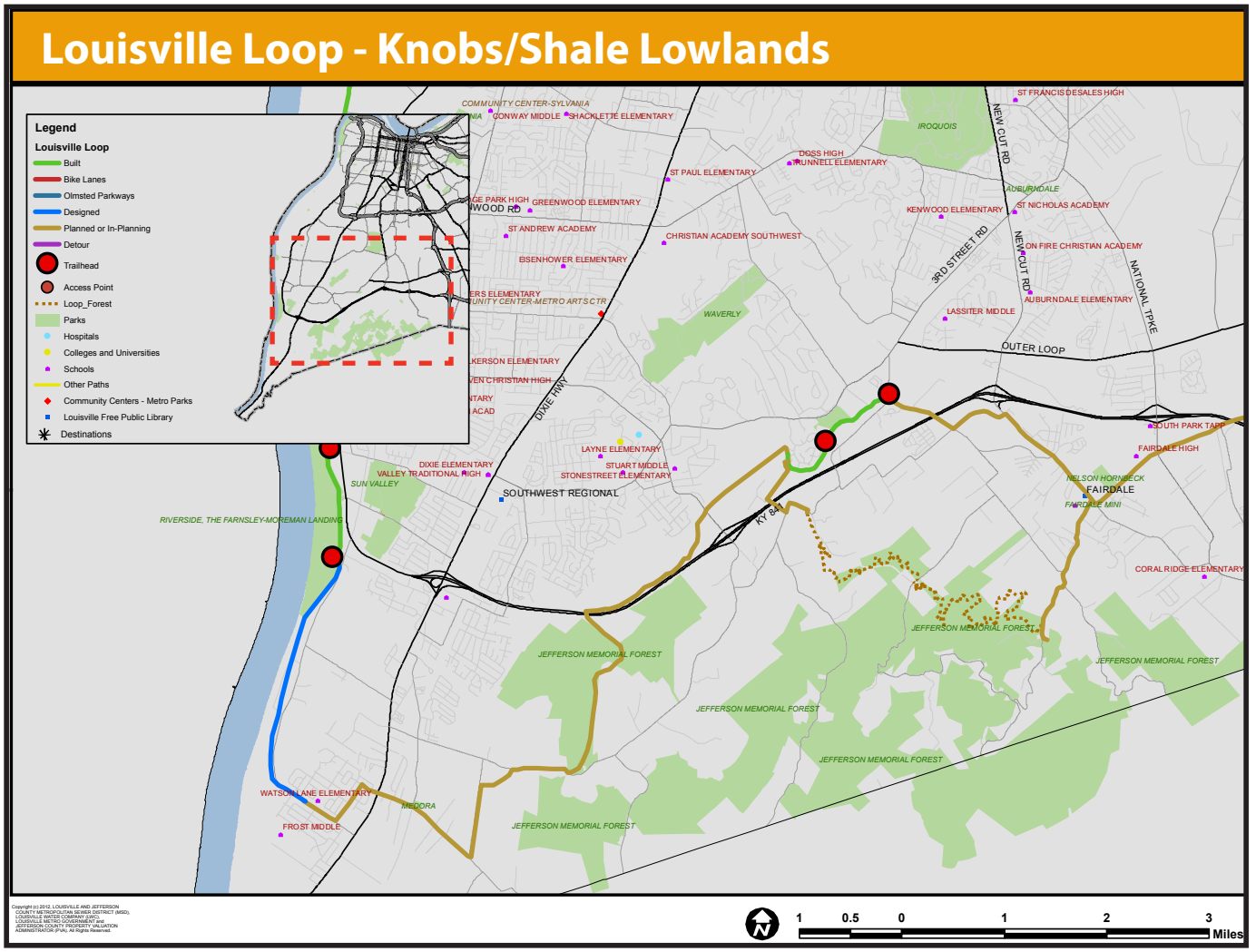
Community Facility Destinations w/in 1 Mile of Knobs/Shale Lowlands segment:

- Small Communities and Neighborhoods: Auburndale, Fairdale, Hollyvilla, Valley Station
- 7 schools
- 1 Hospital (Jewish Hospital Southwest)
- 4 public parks

Challenges: Crossing at major roadways and railroads is one of the Loop's greatest routing challenges in this segment. Existing grade-separated or signalized crossing locations would typically provide the best opportunity for overcoming these barriers and will influence the choice of the preferred route. Several tunnel underpasses at the Gene Snyder Freeway will aid in mitigating this challenge. Other roadways that will require special attention include Stonestreet Road and New Cut Road. Each carries a significant traffic volume (18,300 vehicles for Stonestreet Road and 11,400 for New Cut Road). The Louisville Loop Design Guidelines provide AASHTO derived treatments to ensure safe crossings at intersections along these types of roadways.

Like other segments of the Loop, residential and commercial driveways will provide safety concerns due to increased risk for bike/pedestrian and automobile conflicts. Other challenges in the corridor identified mostly in the *Pond Creek Corridor Shared-Use and Ecological Restoration Plan* include potential land acquisition,

Louisville Loop - Knobs/Shale Lowlands

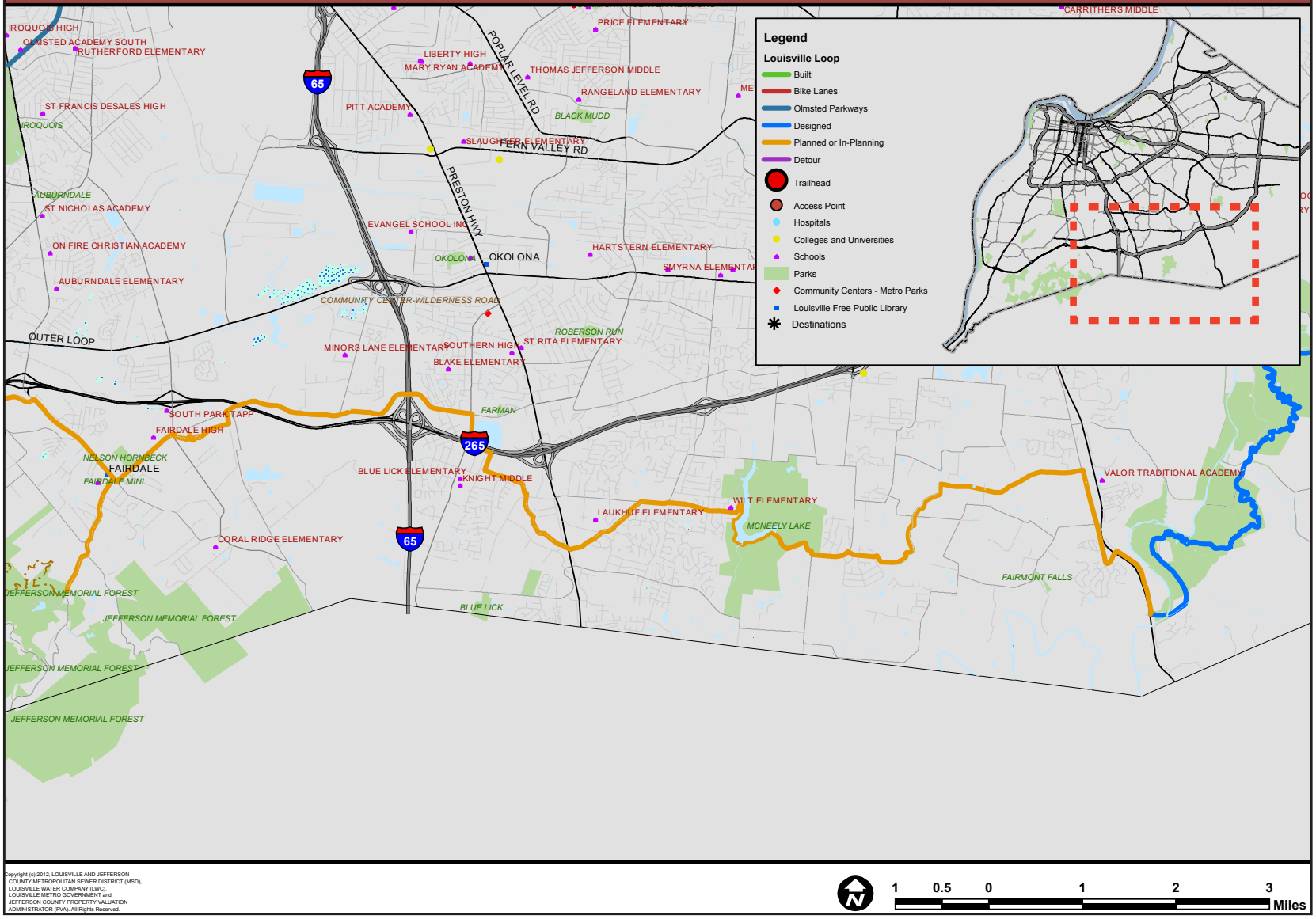


flood zones, wetlands, and topography.

Opportunities: The greatest opportunity in the region is access to the Jefferson Memorial Forest. The Forest provides many amenities to enjoy the land including such activities as hiking, camping, fishing, equestrian use, environmental education, and more. Fairdale, an unincorporated area of Louisville Metro, provides a variety of retail services, parks, schools, library, churches and several residential neighborhoods that make it a prime area for trail-oriented development. Around the U.S. many small towns similar in character to Fairdale have benefited greatly from trail integration into its built environment enriching the local economy and general vibrancy.

East of Fairdale and along South Park Road, the preferred

Louisville Loop - Limestone Belt South



alignment of the Loop, lies the southern end of the Louisville Renaissance South Business Park, a part of the 3,000 acre commercial and industrial zone managed by the Louisville Airport Authority. The Renaissance Zone will be a major feature of the regional economy and major employment center. Direct access via the Louisville Loop coupled with transit service will provide a transportation alternative for residents in the area who choose to bike or walk to work or exercise using the Loop.

Limestone Belt South

Length: 10-12 miles (conceptual)
Physiographic Region: Limestone Belt South
Character: Rolling, Pastoral, Agricultural, low-density suburban residential
Highlights: McNeely Lake, Fairmount Falls

Description: The area east of Jefferson Memorial Forest and the former "Wet Woods" region of southern Jefferson County transitions into the Limestone Belt South area. This area is defined by the layer of limestone bedrock combined with the gentle topography and multiple creeks. These characteristics have historically made it ideal for farming and agriculture. In the modern era, residential subdivisions and pastoral landscapes define the roadsides along this stretch of Louisville. At the center of the area is one of Louisville's largest public parks, McNeely Lake Park. Defined by its scenic 46-acre fishing lake, the Park provides a focal point for the future Loop. Within the region are multiple waterfalls near Bardstown Road and Floyds Fork stream. Fairmount Falls, a part of the Louisville Metro Parks system, is a highlight of this district, featuring a nearly 40-foot waterfall.

Destinations: The Limestone Belt South region lies central to the southern part of Louisville and will provide direct connection between the city's two large natural areas: Jefferson Memorial Forest and The Parklands of Floyds Fork. McNeely Lake Park will be the central feature between the two natural areas. The trail will be within proximity of major employment centers, Commerce Crossings and the Renaissance Zone south of the Louisville International Airport.

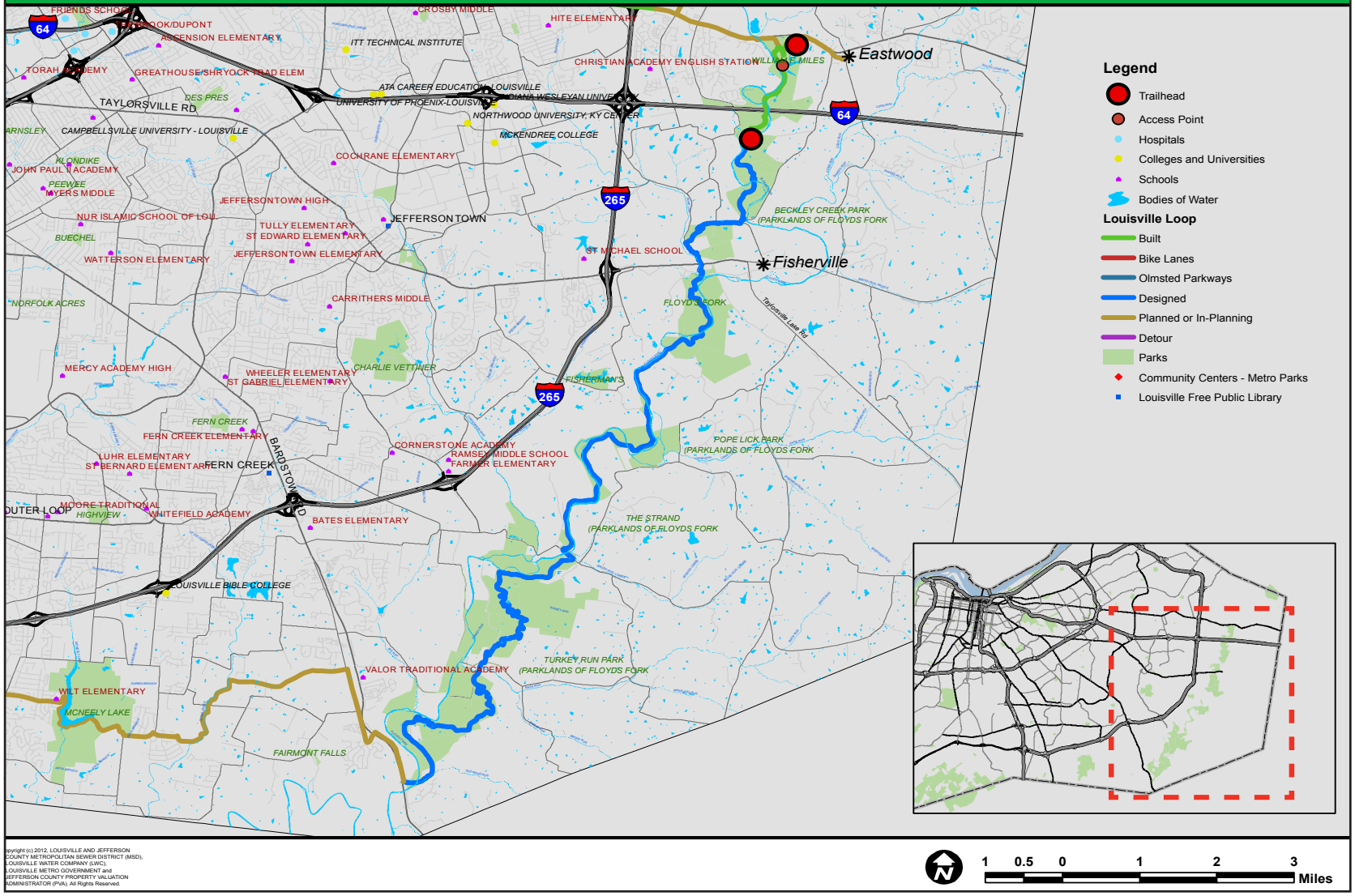
Community Facility Destinations w/in 1 Mile of Limestone Belt South segment:

- Neighborhoods: Fairdale, Okolona, Heritage Creek, Minor Lane Heights, Fern Creek,
- 7 schools
- 3 public parks: McNeely Lake Park, Fairmount, Farman

Challenges: While much of the region is characterized by low-density residential development and pastoral settings, there are several infrastructure challenges that will need to be addressed in final design and engineering of the Loop route. Determining the safest route and access point to cross Preston Highway will require special attention. Preston Highway carries in excess of 30,000 vehicles per day in some portions, particularly near the Gene Snyder Freeway. Another challenge created by the existing infrastructure is the potential risk of aligning a shared-use path along roads with a high-frequency of driveway crossings. Many roads and right-of-ways in the region with the capacity to accommodate a path and will require extra detail in the design and engineering phase of the final alignment to mitigate potential conflict points for cyclists and motorists.

Opportunities: Along the corridor, several key opportunities exist to connect the community to key destinations and leverage construction on the future expansion of Cooper Chapel Road. At the center of the region is McNeely Lake Park. The Loop's alignment through or next to the park will create new opportunities for the area's residents to enjoy the parks' amenities with alternative options for arriving. In addition, tying the region to Jefferson Memorial Forest in the west and the Parklands in the east will provide this region direct access to some of the region's most unique natural settings. In the southeastern portion of this region near Bardstown Road, Floyds Fork and its feeding tributaries have carved a series of waterfalls in various places. One of the falls, Fairmount Falls, is a Metro Park and could potentially be linked to the Loop through soft-surface spur trails. In addition, with General Electric's Appliance Park just to the north of Gene Snyder, there are potential opportunities to explore a bicycle network that connects the Loop with this high employment center. There are potential trail-oriented development sites at Bardstown and Thixton Lane or near the future alignment of Cooper Chapel Road extension currently being planned. These

Louisville Loop - Floyds Fork



would provide additional amenities for the region and enrich the quality of life for the residents.

Floyds Fork

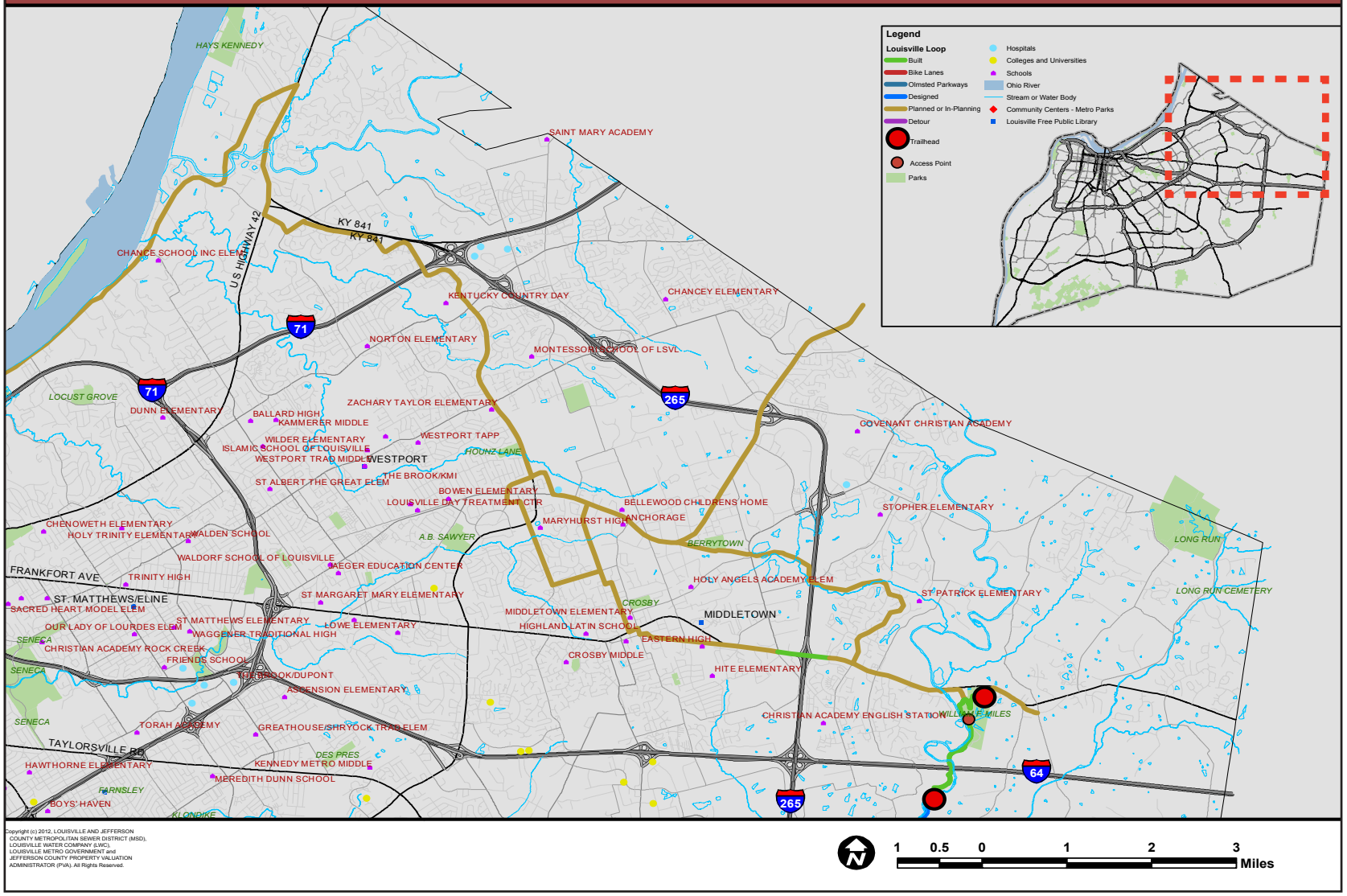
Length: 19 miles (approximately)
Physiographic Region: Floyds Fork
Character: Pastoral, Stream Bottomlands, Forest, Agricultural, Rural
Highlights: Floyds Fork stream, Parklands of Floyds Fork, Fisherville

The Floyds Fork segment of the Louisville Loop traverses approximately 18 miles of woods, stream side, and meadows connecting Shelbyville Road to Bardstown Road. The alignment parallels the stream and allows the user to experience the natural surroundings of the Floyds Fork watershed as most of the alignment will pass through four public parks being developed as part of the Parklands and will connect to numerous side trails as part of the Parklands system. This portion of the Loop is being developed and maintained by 21st Century Parks, a public-private partnership with the City and Future Fund.

Description: The majority of the alignment will parallel the stream but will lie outside a 150' buffer except where conditions require a closer alignment or where views or access to particular places within the park system is desirable. The Loop's approach from the west will align with the Floyds Fork region near Bardstown Road and Floyds Fork in the vicinity of Thixton Lane and the Little Springs subdivision. A major gateway to the Parklands of Floyds Fork is planned in this area. After crossing Bardstown Road, the path will proceed north through the four major parks of the Parklands. Along the route, multiple trailheads will be incorporated into the future park land and will integrate with the planned trailheads and gateways. In addition, the Loop will directly interface with various "rooms" and signature trails that will differ from the Loop in terms of material, geometry and alignment providing access to a variety of focal points as part of the overall park development. The trail through the Floyds Fork region will terminate at Shelbyville Road at Beckley Creek Park and transition into the Middletown-Eastwood Trail and the rest of the Limestone Belt Northeast region or segment of the Loop.

Destinations: A rich variety of active and passive outdoor recreational and educational experiences will be available in the Parklands of Floyds Fork facilities. The four planned major parks of over 4,000 acres provide a significant regional destination and demonstrate the geological, hydrologic, and cultural features the Parklands intend to develop various spaces within the system for programing various uses such as athletic fields, equestrian facilities, nature interpretive centers, rock climbing facilities, and many more amenities. These uses will serve as

Louisville Loop - Limestone Belt Northeast



attractions for the region key amenities for Loop users.

Community Facility Destinations w/in 1 Mile of Floyds Fork segment:

- Neighborhoods: Fern Creek, Fisherville, Eastwood
- 6 public parks, including entirety of Parklands at Floyds Fork

Challenges: Within the Floyds Fork region, the challenge for the Loop alignment will be designing the trail away from the floodway and within a suitable grade to assure accessibility. The path may require crossing Floyds Fork or feeding streams. The master plan and design for the Parklands takes these factors into consideration. One other potential challenge is crossing Taylorsville Road. This road carries over 17,000 cars per day and presents a significant barrier to safe passage for non-motorized uses. The Loop alignment at Bardstown and Shelbyville Roads will include facilities separating bicycles and pedestrians from motorists.

Opportunities: As the Louisville Loop and the Parklands develop, it will be critical to take advantage of greenway connections into the Parklands, especially along waterways that feed into Floyds Fork. Streams such as Broad Run, Turkey Run, Chenoweth Run provide opportunities to develop greenway paths as a feature of a future greenway system. These connecting paths could serve as direct access for existing and future residents and employees in nearby communities such as Jeffersontown, Fisherville, Eastwood, Fern Creek, and Middletown. As demand for access and proximity to the new park land develops, there will likely be pressure for residential development in environmentally suitable areas, particularly those in higher areas with convenient access to the Gene Snyder Freeway. As one of the remaining regions of undeveloped land, any new development could provide models for sustainable development within sensitive watersheds such as Floyds Fork.

Limestone Belt Northeast

Length: 15 miles (conceptual)
Physiographic Region: Limestone Belt
Character: Suburban neighborhoods
Highlights: E.P. Sawyer State Park, Anchorage area, local and regional shopping centers

The Northeast corridor of the Louisville Loop will begin at the northern end of the Parklands of Floyds Fork project at the Beckley Creek Park section of the Loop and the Middletown-Eastwood Trail (M.E.T.) along Shelbyville Road. It will follow River Road in the Prospect area to Beckley Creek Park (formerly Miles Park) on Shelbyville Road near Eastwood. The M.E.T. will begin at Gilliland Road in Eastwood and continue westward toward Middletown at the intersection with Old Shelbyville Road. The segment of the Loop will be a distance of approximately 3.7 miles of the total approximate 15 miles in the Northeast Limestone Belt region. At the I-265 interchange, the M.E.T. integrates with the KYTC's interchange im¬provements and includes a multi-use path on the north side of US 60. This corridor of the Loop will pass through many established communities of northeastern Jefferson County, including such small cities as Anchorage, Middletown, Lyndon, and Prospect. This section of the Loop will pass by three Metro Parks, one state park (E.P. Sawyer), five schools, and connect to several TARC routes. It will also serve as the principle connection between the River Road and Floyds Fork segments of the Louisville Loop.

Description: The Northeast part of the Louisville Loop is differ-

ent than other parts of the city. Other segments tend to follow natural features such as the Ohio River or Floyds Fork. Due to the development of the region, no obvious corridor or feature guided the conceptual alignment as presented in the *Northeast Segment of the Louisville Loop Master Plan and Design Guidelines*, completed in 2012. The area includes a combination of residential and commercial land uses mainly developed in the last 20-30 years and picturesque rolling hills and natural settings. The car-dominated pattern of development and infrastructure presents unique challenges, but also provide great opportunities for the Loop to connect with a large segment of the city's population.

Destinations: The Northeast region of Louisville will provide a rich array of destinations for trail users. In this auto-centric environment, the Louisville Loop will provide a valuable transportation alternative for residents, employees, and visitors. Along the way there will be several key destinations within an accessible distance, given the safe and appropriate facilities. The planning for the Loop alignment also considered non-motorized access to destinations such as retail, education, and other park and recreation facilities in the area. The ShelbyHurst Research and Office Park, a 200-acre professional office and research campus being developed around UofL's Shelby Campus, will be within a short distance of the Loop alignment near E.P. Sawyer State Park (pictured at right). The connection between the two could occur through bike lanes, multi-use paths, and sidewalks. Twenty-two public and private schools have been identified as well as 1,740 acres of park and natural areas within a ¼ mile of the conceptual alignment. The route's interface with road corridors such as Shelbyville Road, Westport Road, Brownsboro Road, and U.S. 42 provides direct connection with public transit routes. Northeast Segment of the Louisville Loop Master Plan and Design Guidelines provides further detail of these connections and various route alternatives to potential destinations.

Community Facility Destinations w/in 1 Mile of Limestone Belt Northeast segment:

- Small Communities and Neighborhoods including Anchorage, Middletown, Jeffersontown, Douglass Hills, Woodland Hills, Lyndon, Langdon Place, Plantation, Rolling Hills, Meadow Vale, and Prospect
- 14 schools
- 6 public parks

Challenges: Throughout the planning process for the Northeast Segment of the Louisville Loop Master Plan, it was recognized that there were evident challenges to aligning the Loop route through the suburbanized environment of this region. Without an obvious natural corridor or long segments of other regions, the conceptual route was challenged to keep a defined trail segment. This required careful consideration for crossing major roads such as Westport Road, Brownsboro Road, Shelbyville Road, US 42, Interstates 265 and 71. In addition, limited right-of-way options in certain areas, and railroad crossings presented several potential barriers along the route.

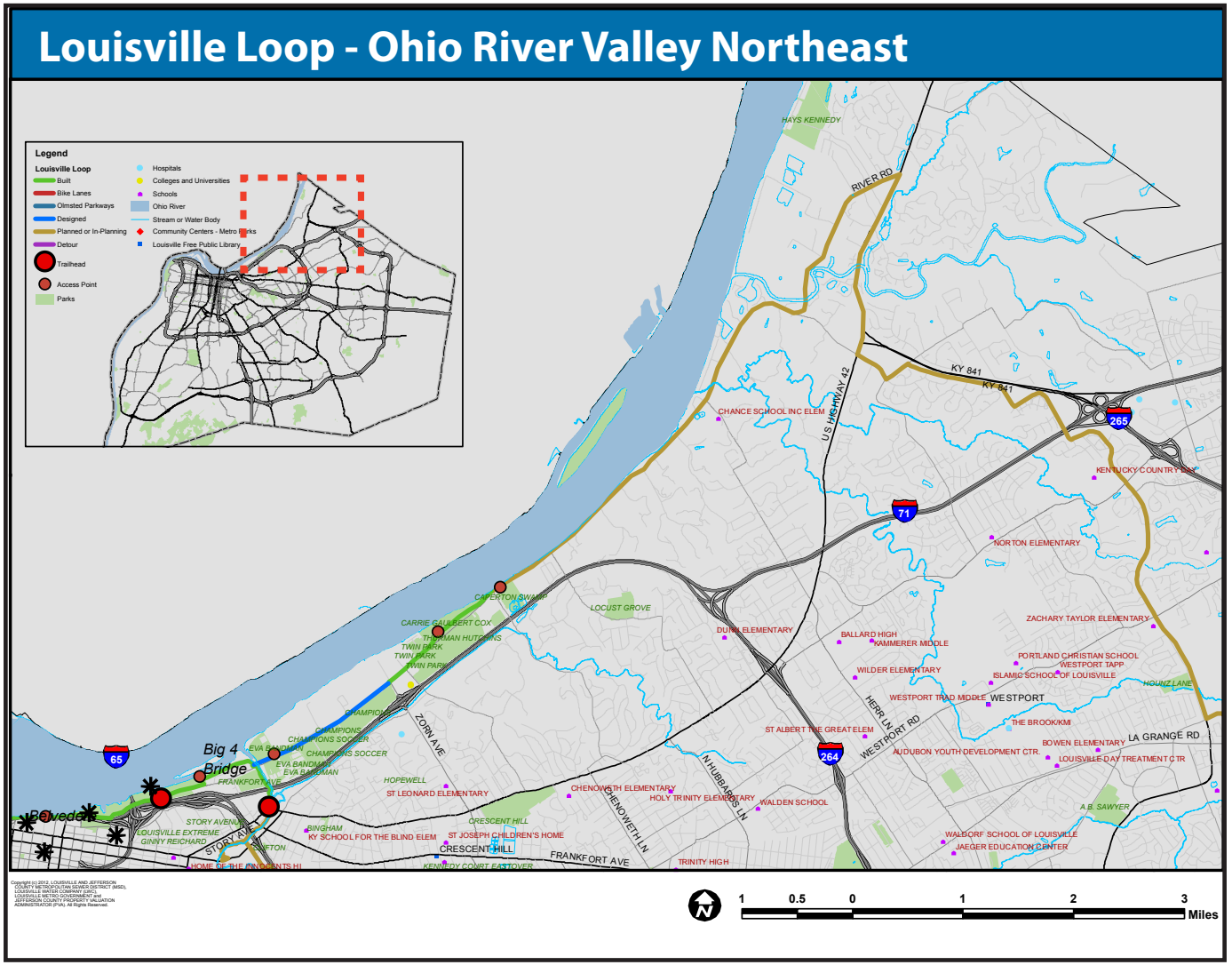
Opportunities: The Limestone Belt Northeast region can potentially provide greater connection to the Loop for more neighborhoods/communities than any other region in the city. Its conceptual alignment has been planned to create a central "branch" from which community connections can be made. These connections would link to community facilities, work sites, civic spaces, and regional trail systems. Despite the lack of natural corridors for the route, there are many portions of the planned alignment that provide public right-of-way options. Two segments of the route will traverse a significant distance along Shelbyville Road and Hurstbourne Parkway. Despite heavier traffic volumes and higher speeds in these corridors, barriers are overcome by improved mobility options created through direct links to established neighborhoods, multiple worksites, schools, and parks.

Another unique opportunity for the Louisville Loop in the Northeast portion of the city is the connection to other trail systems in the region. There is great potential to connect the Loop to the future Oldham County Greenway system along the LaGrange Road and rail corridor. The Northeast Loop Trail will also connect to the Ohio River Valley Northeast region of the Loop with direction connections to bicycle and pedestrian facility planned on the East End Bridge. This link to the Indiana communities provides other future potential trail connections.

Ohio River Valley Northeast

Length: 10 miles (approximately)
Physiographic Region: Ohio River Valley
Character: Riverside, Scenic, Pastoral
Highlights: Ohio River, Waterfront Park, Big 4 Bridge, Cox Park, Eva Bandman

Louisville Loop - Ohio River Valley Northeast



Park, Caperton Swamp, Thurman-Hutchins Park, Patriots Peace Memorial, Prospect village, scenic landscape

The entire Ohio River Valley region covers approximately 37 miles of contiguous riverside. The Louisville Loop will travel next to or very near the Ohio River for the majority of this distance. One intent of the Louisville Loop is to provide connections to unique Louisville landscapes, including the Ohio River. The Ohio River Valley Northeast region of the Louisville Loop is expected to provide memorable experiences and serve to connect the city to the river, and people to each other, nature, work places, and historic and cultural places.

The region is the last to receive planning for the specific conceptual alignment. A future planning effort is expected to review all previous documents. In 1996, the *Ohio River Corridor Master Plan* was developed as part of the *Cornerstone 2020* process and the *River Road Corridor Management Plan* was produced in 2010 funded through the Federal Highway Administration's Scenic Byways Program. The Corridor Management Plan recognized the natural, historic, cultural, recreational and scenic resources of the road's corridor and evaluated the incorporation of multiple modes of transportation, including a shared-use path. The rich inventory and assessment of these resources will be imperative to all future planning efforts in the region.

Even though a conceptual route along River Road has been considered since the mid-90s, a definite alignment will need to be explored through a planning study, including a detailed analysis of the conditions and the involvement of the local community and individual property owners. The goal of the study will be to assure that a safe and connected route capitalizes on the unique landscapes of the region and is designed to follow the principles and guidelines of the Louisville Loop.

The Louisville Loop begins and ends at the Big Four Bridge and mile 0 trailhead in Waterfront Park. The Bridge is expected to become an icon of the Loop with direct access to the bicycle and pedestrian network on the Indiana side as well as Louisville's bicycle and pedestrian network.

Description: The Ohio River is integral to defining the region's physiography. The resulting landscape reflects this influence, ranging from the river terraces, open rolling pastures and agricultural fields within the floodplain, vegetated riparian buffers along the feeding streams, and the highland bluffs overlooking the valley. Due to this variety, the Loop alignment through this region will provide spectacular opportunities for the community to connect with the Ohio River and its cultural landscapes. *The Northeast Segment of the Louisville Loop Master Plan and Design Guidelines* identified that the transition from the Limestone Belt Northeast Region into the Ohio River Valley Northeast will occur through the City of Prospect. The East End Crossing of the Ohio River Bridges is expected to incorporate a 17-foot pedestrian/bicycle path along the downstream (west) side of the crossing. Construction for that project is expected to begin in 2013. It will be imperative for the Louisville Loop to leverage that connection as part of a regional trail system. From Prospect, the path is expected to connect to the existing path at Cox Park near Zorn Avenue. Planning with the community as well as referring to previous studies, such as the *Prospect Mobility Study*, will determine the route location.

Beginning at Caperton Swamp and the intersection of River Road and Indian Hills Trail, the existing trail built in the 1990s will continue southwest. At Zorn Avenue, the trail will cross River Road and connect to the future trail built along Champions Park and the new widening project of River Road from Zorn to the Beargrass Creek crossing. The Loop will intersect with the Butchertown Greenway at this juncture providing internal access for neighborhoods such as Clifton and Butchertown. The trail continues on the current built section at Eva Bandman Park and proceeds through the River Park Place mixed-use development site to Waterfront Park.

Destinations: The Ohio River Valley Northeast region, particularly along River Road, is a major recreational destination for the citizens of Louisville and the surrounding area. There are several dozen recreation-oriented sites in the corridor including three large public parks, two nature preserves, a memorial, and several private facilities including marinas, boat docks, beaches, social clubs, and restaurants. Many of these recreational areas and facilities are associated with the river and also contain significant natural, cultural, historic or scenic qualities. Although the ownership and operation of these places fall to different entities, they all contribute to the enjoyment and appreciation of the Ohio River and its landscape.
The Loop in this region will also provide direct access to the diverse land uses and important cultural sites within a ¼ to ½ mile of all potential routes for the Loop, including access to historic sites such as Locust Grove, the Louisville Water Company Tower and Waterfront Park. Within the City of Prospect, there are many

destinations including community- serving retail, food retail, general services, and many civic and community facilities. This region is one of the city's most popular destinations because of its natural beauty. The region's most popular park and front lawn of the city is the Waterfront Park.

Community Facility Destinations w/in 1 Mile of Ohio River Valley – Northeast segment

- Small Communities and Neighborhoods: Prospect, Glenview, Glenview Hills, Riverwood, Northfield, Indian Hills, Rolling Fields, Clifton Heights, Butchertown, Mockingbird Valley
- 2 schools
- Webster University
- 10 public parks

Challenges: Despite the opportunity to connect the community to the river, this setting presents numerous challenges Some of the main considerations in developing the Loop are similar to other regions and include limited right of ways, waterway and wetland crossings, sensitive environmental resources, and private land ownership patterns. The existing path along River Road has been built on publicly-owned land such as Waterfront Park and Cox Park. Other publically-owned lands such as Champions Park and right-of-way in the future roadway expansion project of River Road between Beargrass Creek and Zorn Avenue will include a shared-use path. Beyond these known portions of a path, conditions must be analyzed and vetted through a public engagement process before a final Loop alignment in this region is realized.

Opportunities: With important historic sites, several beautiful park settings, pastoral landscapes, and one of Louisville's most scenic road corridors in River Road, the Ohio River Valley Northeast region could become one of the Loop's most appealing corridors. The opportunity to connect to various sports recreation fields and facilities, such as Waterfront Park, Eva Bandman Park, Champions Park, Edith Avenue soccer fields, and the amenities within Cox and Thurman Hutchins Parks positions the path through the region to be a major destination. A multitude of social opportunities through the various private clubs in the region provides multi-modal opportunities. Currently, there are few pedestrian facilities in the region. The Loop path will provide greater alternative mobility options for residents and eventually providing access to services and other destinations. The Loop provides the opportunity to showcase the beauty of the Ohio River and other water bodies in the region in addition to the scenic pastoral landscapes and wooded river bluffs. It will be advantageous for Louisville to possess such natural beauty and diversity of settings close proximity to Downtown.

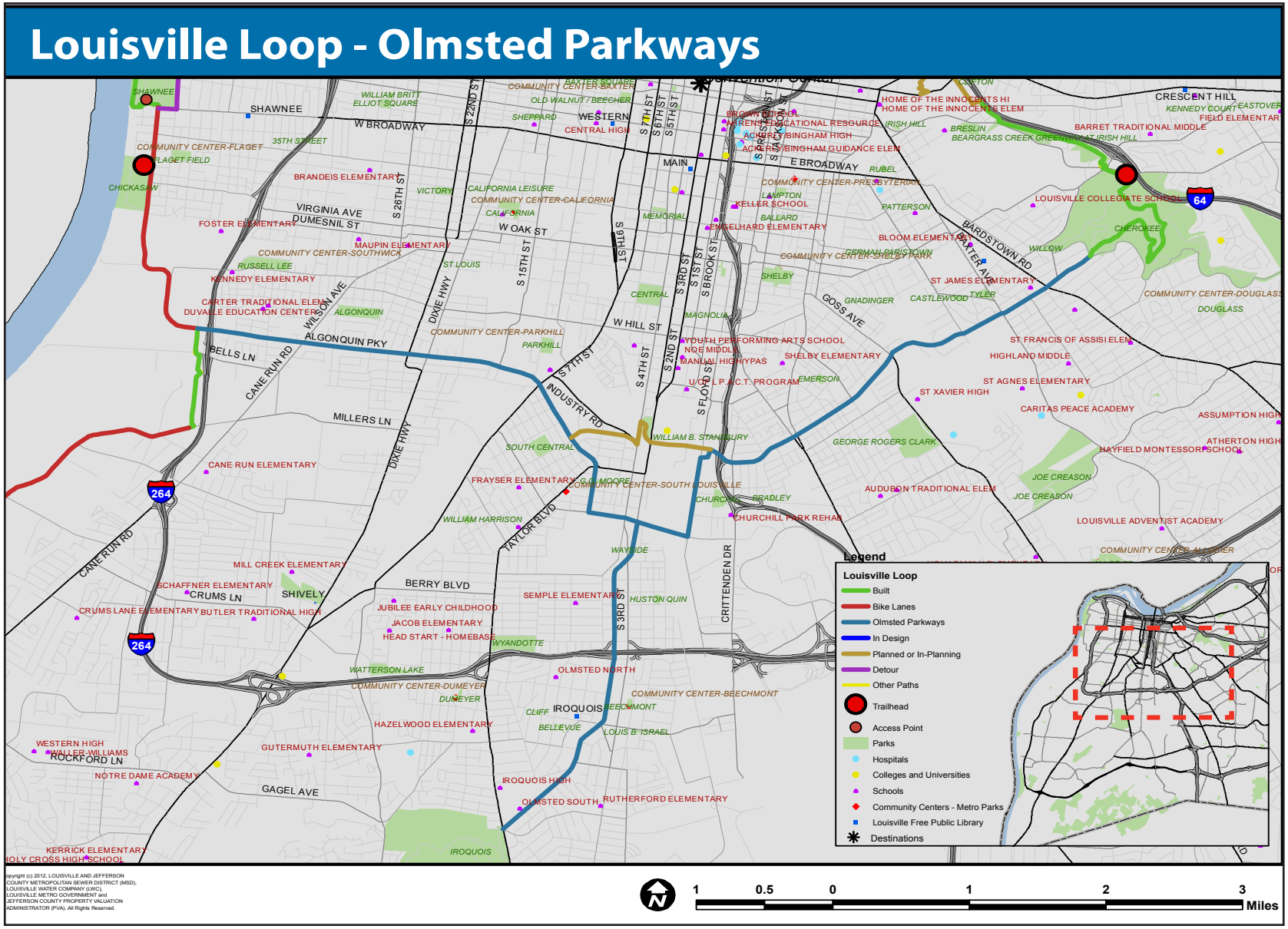
Olmsted Parkways

Length: 10 miles (approximately)
Physiographic Region: Ohio River Valley, Limestone Belt
Character: Urban, residential and industrial
Highlights: Tree-lined road corridors, Olmsted Parks (Shawnee, Chickasaw, Algonquin, Iroquois, Stansbury, and Cherokee Parks), University of Louisville, Bardstown Road, historic neighborhoods

The Olmsted Parkway System was designed by the firm of preeminent 19th century landscape architect Frederick Law Olmsted. The 26-mile (42 km) system was built from the early 1890s through the 1930s, and initially owned by a state-level parks commission, which passed control to the city of Louisville in 1942. The system was intended to form a circuit around what was then the fringe of the City of Louisville. Now, they serve as the spokes to the Louisville Loop, connecting one area to another and linking some of the city's most treasured parks. The Olmsted Parkways Shared-Use Path System project will create improved pedestrian and bicycle opportunities along approximately 26 miles of the parkways that link the major Olmsted parks in Louisville (Cherokee, Iroquois, Shawnee, Stansbury, and Algonquin) as well as the numerous neighborhoods that are traversed. The parkways included in this project are Northwestern, Algonquin, Eastern, Southern and Southwestern. Additionally, the Louisville Loop along the parkways will link the Olmsted system to the University of Louisville, as intended by Frederick Law Olmsted's original design.

Description: Access to the Olmsted Parkway system will begin in the western neighborhoods of Louisville near Lannan Park. The western parkways include the Algonquin, Southwestern and Northwestern Parkways, for a distance of about 7.6 miles. They

Louisville Loop - Olmsted Parkways



provide approximately a 140-foot cross-section with distinctive 40-foot green verges to each side with double rows of trees. Many of these tree rows contain historic pin and red oaks, providing a majestic tree canopy. These characteristics along with a relatively level topography make the western Parkways a very suitable environment to bicycle and walk. Portions of the western Parkways pass through some of Louisville's most intensive industrial areas, but the majority of the route is residential with a mix of single-family and medium-density multi-family housing.

As Algonquin Parkway approaches the University of Louisville, the trail system will enter what the "Olmsted Parkway Shared-Use Path System Master Plan" termed "The Hub." Due to years of infrastructure fragmentation mainly from railroad crossings near the University of Louisville, the juncture of the Eastern, Southern, and Algonquin Parkways never connected as was intended under the original Olmsted design. The "Hub" as conceptualized in the Master Plan outlines multiple options for creating non-motorized connections.

Southern Parkway was the earliest constructed parkway. It was built the closest to the Olmsted ideal with model sections showcasing a broad central drive, flanking sidewalks, bicycle/bridle trails, service drives and pedestrian walks to the outer perimeter and a broad expanse of green turf planted with rows of trees throughout. It is a 2.6-mile corridor extending from Wayside Park and Harlan Avenue to Iroquois Park and New Cut Road and will provide a key connection to the Loop and other parts of central Louisville as well as to points south.

The campus of the University of Louisville is the nexus between western Louisville and the eastern neighborhoods along Eastern Parkway. The Parkway is approximately 3.2 miles. As with Southern Parkway, Eastern Parkway has a central vehicular drive and two flanking green turf areas. However, Eastern Parkway has two significant differences - a narrower 120-foot cross section and an absence of service drives. Despite these differences, the feel and character of Eastern Parkway is very similar to Southern Parkway in many sections. Eastern Parkway's topography is the most varied amongst the parkways with gradual changes, especially as the route approaches Cherokee Park in the Highlands neighborhood.

Destinations: The Olmsted Parkway shared-use trail system will become an essential alternative transportation corridor. Due to its central location, the system provides key links to many of the city's most important cultural, economic, and social destinations. The population and employment densities along the corridors are among the highest in the city with direct connections to worksites, residential areas, recreational areas, high-frequency transit routes, retail services, and educational sites. These conditions make it one of the key transportation facilities of Louisville's alternative transportation network.

The western parkways of Northwestern, Southwestern and Algonquin provide direct access to the Olmsted Parks of Shawnee, Chickasaw, and Algonquin. In addition, several important industrial areas such as Rubbertown and Park Hill Industrial Corridor are directly adjacent to the western Parkways. Algonquin Parkway connects directly to the Park Duvalle neighborhood and its various schools, parks, open spaces, and retail services. Park DuValle was one of the early models of the HOPE VI program, completely redeveloping the site of former low-income apartments into a mixed-use, mixed income neighborhood following New Urbanism design principles.

At the core of the Olmsted Parkway system is the University of Louisville. As previously mentioned, the "Hub" will provide access to other destinations such as Old Louisville and Downtown to the north and the southern neighborhoods along Southern Parkway. Churchill Downs, Papa John's Cardinal Stadium and other University athletic venues, the Kentucky Fairgrounds and Exposition Center lies a short distance to the south. Southern Parkway meets the 700 acre Iroquois Park and provides access to the Manslick and St. Andrews Church Road areas. Farther south along New Cut Road it links to Fairdale and the Jefferson Memorial Forest.

Eastern Parkway provides key connections to many destinations in the eastern neighborhoods such as Germantown/Schnitzelburg and the Highlands area. Approximately two miles from the University of Louisville lay Bardstown Road, one of the Louisville's iconic retail corridors. This node serves as a juncture

between the neighborhoods in the Highlands and the approximate 400-acre park designed as one of Louisville's original parks by Frederick Law Olmsted. On the eastern side of the Cherokee Park lie the theological campuses of the Louisville Presbyterian Seminary and the Southern Baptist Theological Seminary. Cherokee Park serves as a key alternative transportation connection to the Ohio River with off-road routes through the park and the Beargrass Creek Greenway.

Community Facility Destinations w/in 1 Mile of Olmsted Parkways segment:

- 53 Neighborhoods
- 37 schools
- 5 Community Centers
- 35 public parks
- 2 public libraries

Challenges: When Olmsted designed his Grand Boulevard concept for the parkways, he had the foresight to design for different modes of transportation. Years of encroachment and a loss of the original vision have created design challenges for a modern shared-use path system. Encroachments are a significant issue on all parkways. They include parking, unauthorized paving, curb cuts, structures, excess signage, and unauthorized planting on parkway property. Private encroachments reduce the green ribbon and interrupt the visual character these green spaces are intended to create. Key crossings with railroads, busy intersections, and interstate add design challenges for non-motorized users. I-264 crosses the Parkways at Eastern, Algonquin, and Southern Parkways creating major impediments to efficient and comfortable bicycle and pedestrian movements. High speed traffic and several free flow entry and exit ramps at both freeway connections and some major street intersections. This makes on-street bicycle traffic viable for only the most experienced and intrepid cyclists.

Opportunities: The Olmsted Parkways Shared-Use Path System as it connects at the University of Louisville is perhaps the most critical connection point for the city as part of the Louisville Loop system. Some of the city's highest population densities and concentrations of work sites and education campuses are directly adjacent to the Parkways. The conceptual design outlined in the Master Plan provides linear multi-modal corridors with park-like character that connect the great Olmsted parks and over 24 neighborhoods in urban Louisville. In the spirit of Olmsted's philosophy of designing settings to "refresh and delight the eye, the mind and the spirit", a connected path system for bicyclists and pedestrians along the Olmsted Parkways is paramount for addressing Louisville's need to provide a healthy, safe, and connected urban environment.

CHAPTER 4

Design Guidelines

Role of Guiding Documents and Policies

Throughout the planning for the Louisville Loop, the overarching guiding principle has been to provide safe, efficient, and pleasing facilities that accommodate all levels of users and create a more connected community. Each area of Louisville possesses unique environmental characteristics, both natural and built, reflective of its rich history and diverse landscapes. A series of design and wayfinding documents were developed to assure the Louisville Loop provides a consistent user experience. Between 2009 and 2011 Metro Parks developed three key documents, including the *Louisville Loop Design Guidelines*, the *Louisville Loop Wayfinding Master Plan*, and the *Louisville Loop Soft Surface Trail Standards*. Each of these are a document outlining essential standards and guidelines and setting a high standard of quality.

In addition, the *Louisville Metro Land Development Code (LDC)* includes) provisions and regulations that will guide future land development and elements specific to greenway trails. It is conventional practice in many cities throughout the country to have provisions in their land development codes referencing legislatively adopted plans. This permits the municipality to negotiate easements and access when private development is proposed. Further explanation and general overview of the role of the LDC will be covered in the section below. Each of these documents serve project planners, developers, and affiliated partners with a consistent set of guiding principles, standards, and other design elements to assure a recognizable, consistent, and attractive outcome for the Louisville Loop. The sections below provide a general overview of each of the documents mentioned above. This Master Plan will serve as an essential first point of reference to project managers, designers, and users as a gateway to these documents.

Louisville Loop Design Guidelines

The *Louisville Loop Design Guidelines Manual* is the most critical document to date developed for the Louisville Loop project. Its 154 pages are laden with detailed graphics, text, and images reflecting best practices, standards, and guiding principles on elements such as signage, branding, facility standards (paths, etc.), crossing standards, support facilities (trailheads, etc.), public art, and more. The *Design Guidelines Manual* has received local, regional, and national recognition and has been presented at numerous conferences around the region and country. The intended standard for constructing the entire Louisville Loop is to establish the project as a world-class facility that result in civic pride and numerous long-term community benefits. The guidelines are meant to ensure the trail functions as one cohesive system, defined by unique materials and amenities coordinated to define a character distinctive to the Louisville Loop.

DESIGN GUIDELINES

The purpose of the Louisville Loop Design Guidelines Manual is to find a balance among design intents such as defining a unique and unifying character, building an affordable and maintainable system, and creating a project with world-class identity. These key factors are reinforced through standards that serve to "brand" the Loop by using local materials and consistent amenities through the system to unify its character and establish a unique identity. One of the main elements of this unique and unifying character is the use of Louisville's five physiographic regions as a materials, interpretive, and educational component throughout the Louisville Loop.

Ohio River Valley -
Much of Louisville exists within this valley which "is characterized by level, to sloping alluvial soils on terraces and bottoms along the Ohio River."

Knob Hills -
Found mostly in the southwestern portion of the City, these areas include the ridges and steep hills adjoining the Ohio River Valley. The Jefferson Memorial Forest and Iroquios Park are examples found within this region.

Slack-water Flats -
This is an area of level, poorly-drained soils which occur on the former site of an ancient lake bed to the north and east of the Knob Hills region.

Limestone Belt -
This region is characterized by level to steeply sloping soils formed from limestone and covers a major portion of Jefferson County. Included in this region is Cherokee Park.

Floyd's Fork Drainage Area -
this region is characterized by "diverse landscape of gently sloping to steep uplands in the extremely eastern portion of the County."

The trail has the opportunity to function as a walking story board as the trail passes from one section of the city to the next, or as specific geological features are crossed. In addition, the guidelines outline educational and interpretive components highlighting cultural and natural history along with the inclusion of public art as an integrated part of the design that adds educational, recreational and aesthetic value to the trail. All of these elements aim to assure the Louisville Loop becomes a "Monument to Merger" and distinguishes itself like no other trail system in the world.

The Manual's six sections address many elements of trail development from general definitions, signage and branding strategies, engineering, and amenity design for the entire project. At build-out, the Louisville Loop will transect various areas and contexts of the community including urban, suburban, and rural portions. Each of these areas will require unique treatment, yet be unified through consistent standards that meet the guidelines unique to the Loop as well as state and federal standards. It is critical the Louisville Loop guidelines use these external standards as a baseline for minimum conditions as well as qualifying to meet state and federal funding requirements.

Louisville Loop Wayfinding Master Plan

The *Louisville Loop Wayfinding Master Plan* builds upon the vision, community ideals and principles set forth in the *Louisville Loop Design Guidelines Manual*. The *Wayfinding Master Plan* is intended to supplement the Design Standards Manual and not supersede or replace it. It was funded as a portion of the $7.9 million Louisville Putting Prevention to Work (LPPW) grant, an anti-obesity effort from the U.S. Department of Health and Human Services and managed by the Centers for Disease Control and Prevention and the Louisville Metro Department of Public Health and Wellness. The master plan and implementation has already provided fruit in the details used to install and implement the signs along the constructed portion of the Loop. It guides the placement of signage, destinations to be included on directional signs, and locations of the wayfinding elements. This plan also outlined new interpretive and educational opportunities along the Loop, defining the content and locations of these signs.

The goal of the wayfinding signs along the Louisville Loop is for all signs to be informative, functional, and to capture the identity of the Louisville Loop. There is also a need to identify the unique segments of the Loop with a color coding system, designed with elements to reflect the physiographic region for which it is posi-

tioned. Uniformity in design layout, materials, and style has been a key component of this wayfinding system. Guidance for the sign program also includes signature marker signs, directional signs, trailhead signs, identification signs, mile marker signs and interpretive signs. While the constructed portion has been implemented, as projects are constructed in the next few years, the details in both the Design Guidelines and the Wayfinding Master Plan will direct how these wayfinding elements are delivered.

Soft Surface Trail Standards

The *Soft Surface Trail Standards* document was developed as a supplemental section for the Design Standards Manual. Its purpose is to provide the functional operation standards for the soft surface trails for hiking, trail running, mountain biking and equestrian use associated with the Louisville Loop. Elements detailed in the Standards include the materials and specifications for the layout and construction of the trails, trailheads, trail intersections, signage and amenities. The guidelines identify the critical design criteria that will direct construction of soft surface trails and associated amenities.

Applying the guidelines in the *Soft Surface Trail Standards* will assist project managers and planners so as to ensure a more thoughtful consideration of the site's physical and scenic qualities that add interest, offer challenges, and exhibit scenic values that contribute to the overall trail experience. The standard's multiple objectives include: provide the highest standards of sustainability and durability for a soft surface trail system; provide construction standards that ensure consistent installation; and, provide trails that are safe and pleasant to use with a coherent system of wayfinding.

Land Development Code (LDC)

The *Land Development Code (LDC)* is a critical tool for implementing the Louisville Loop. As the regulatory tool adopted by the Louisville Metro Council, it dictates the regulations and requirements for land use and development established in accordance with the community's comprehensive plan, *Cornerstone 2020*. Throughout its provisions are the full consideration of, among other things, prevailing land uses, growth characteristics and the character of the unique contexts through Louisville and Jefferson County. Specifically, this Code provides regulations to implement applicable goals, objectives, guidelines and policies of the adopted *Cornerstone 2020*.

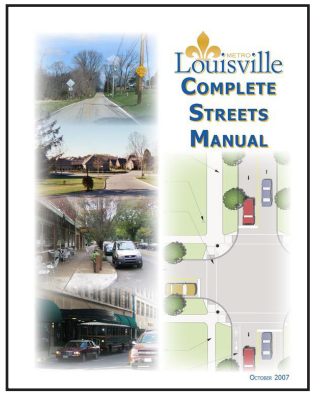
There is a strong connection between the LDC and Cornerstone. In order to understand the role of the LDC with the Louisville Loop, it is important to recognize the importance of the planning elements within *Cornerstone 2020*. Developed during the mid-90s and adopted in 2000, the comprehensive plan addressed the need to establish a comprehensive, coordinated bicycle and pedestrian system connecting parks, greenways, and recreational facilities. One component of the *Cornerstone 2020* process was the development of the *Multi-Objective Stream Corridor/Greenway Plan* in 1995. The plan described a vision and plan of action for Louisville and Jefferson County to develop an interconnected system of linear open space corridors to address multiple objectives including "alternative transportation, recreation and economic growth." As a result, these policy statements have been developed into regulatory provisions within the LDC.

Among the many provisions, the most relevant to the *Louisville Loop Master Plan* and/or greenways/trails include Chapter 5, Part 8 and Chapter 10, Part 5. Section 8.2 of Chapter 5 dictates that a developer must provide a trail easement or other provisions for public access through the site where a trail alignment is noted in a legislatively adopted greenway/trail plan. The provisions of Chapter 10, Part 5 identify that a greenway or trail can be considered as part of the site's open space requirement and must meet as a minimum the open space standards of the LDC or the design guidelines of the adopted greenway/trail plan. See Appendix X of this plan for a complete overview of all relevant portions of the LDC that impact land development in relation to the Louisville Loop.

It is important to note for purposes of this master plan that all cities of the first through fourth classes have zoning authority over the areas within their respective jurisdictions. In other areas, including the fifth and sixth class Louisville Metro Council shall have zoning authority over all other areas in Jefferson County, including cities of the fifth and sixth classes. Therefore, depending on the section of the Louisville Loop and the jurisdiction for which it passes, planners and project managers should consult with Louisville Metro Planning and Design Services or the individual jurisdiction to understand how certain provisions may differ.

Complete Streets Policy

The *Louisville Metro Complete Streets Manual* and policy was adopted in 2008. At the time of adoption, it was among the first in the country to be legislatively adopted and is among the most comprehensive document of its kind in the United States. Complete Streets, by definition, means "routinely providing accommodation on all new and reconstructed roadways for ALL users: bicyclists, pedestrians, motorists, transit users, and people with disabilities." Louisville's Complete Streets Manual



incorporates elements for streetscape design to fit the context within the existing character of the community. In the context of implementing the Louisville Loop, the policy will serve to assure that future facilities of new and retrofitted roadways consider the safety of all users, including bicycles and pedestrians. This will be a critical element when identifying critical linkages throughout the system to assure connection from the Loop to neighborhoods, workplaces, and destinations. The guidelines within the Manual are intended to be a guide for particular settings, so any particular application of a facility in relation to the Loop should be considered in a contextual basis.

CHAPTER 5

Implementation

INTRODUCTION

The Louisville Loop is a complex and dynamic project that requires a multi-year, incremental approach to implement. It is a long-term investment that will last many generations with proper care, as this Louisville's Olmsted Park system can attest. Building on the existing assets and following the vision, it is important to consider how the project will continue to be funded, constructed, marketed, managed, evaluated, and sustained. The following chapter provides a general introduction to these imperatives. The purpose of the Master Plan is to provide a general overview and introduction to the entire system as a starting point for future action. Likewise, the following items are intended to serve as an initiating point for greater exploration and strategy development.

PRIORITIZATION FOR IMPLEMENTATION

At the time of this master plan, the exact routes and needed right-of-way for acquisition or use of the complete Loop alignment is unknown. Therefore, the Louisville Loop Work Group and others involved in planning the future of the Louisville Loop have provided suggested criteria for selecting funding and prioritizing future projects. These criteria are based on a review of local knowledge, national best practices, and information relevant to the project. The following criteria (order not reflective of weight) should be considered and followed in determining capital projects:

CRITERIA	DESCRIPTION
Right-of-Way Availability	Louisville Metro or partnering agencies have title or rights of public access and use of the property
Agency Support	The project is supported by multiple agencies and has been identified as a feasible project
Public Support	The surrounding neighborhoods and communities support development of the path segment. Alignments that have been identified as part of a public process should be prioritized.
Connectivity to Destinations, Transportation, or Public Lands	Project provides transportation and recreational access to activity centers such as schools, employment and commercial districts, key transit stops or centers, parks and public lands.
Enhances Safety for Non-Motorized Travel	The project provides safe use for all users, including people travelling along and across roadways, railroads, waterways, and other barriers.
Constructability	Ease of implementation based on criteria such as intact right-of-way, feasibility of environmental permitting, probable costs, design constraints (slope, floodplain, access, etc.)
Population Served w/in 1 Mile	Project will serve a significant population (compared with overall per capita population) within a mile of the preferred alignment.
Expansion of Existing System	The path is an extension of an existing path.
Source of Funding	Funds have been committed to the project, other agencies or private sector groups, through partnerships, have committed funds in support of the project.
Cost of Trail Facility Development	An estimate for the project has been completed and it has been determined that it is financially feasible to construct the path facility.

FUNDING OPTIONS

Multiple funding opportunities have driven progress on the Loop to date. The built sections of the Louisville Loop, including the RiverWalk and the Levee Trail, occurred in the 1990s through federal surface transportation program grants. Partnering agencies such as MSD, Metro Public Works, and the Kentucky Transportation Cabinet have also incorporated paths into their projects. As demonstrated in other communities, combining private dollars with funds from local, state, and federal resources is a model the Louisville Loop has followed. In the development of funds to support the entire Loop, it will be critical to consider all possible resources in the design, land acquisition, construction, operations (programming and maintenance) and management of the project. The following paragraphs provide a general overview of potential funding sources to sustain the Louisville Loop.

The largest source available for building trail and greenway systems around the country are Federal dollars available through the programs of the legislatively adopted Federal surface transportation bills. On July 6th, 2012, President Obama signed into law the Moving Ahead for Progress in the 21st Century Act (MAP-21) which sets the availability of long-range funding for surface transportation programs at over $105 billion for fiscal

years 2013 and 2014. This was the first reauthorization of the transportation bill since 2005. Since the last bill (SAFETEA-LU), several significant changes have occurred that typically fund alternative mode options such as bicycles and pedestrians. Several different mechanisms deemed "non-essential" were removed from the bill to bring its overall costs down. These "non-essential" elements included many of the transportation enhancement provisions of the earlier bills that supported bicycle and pedestrian projects like the Louisville Loop. Many of the critical mechanisms such as Congestion Mitigation and Air Quality (CMAQ), Recreational Trails Program (RTP), and Surface Transportation Program (STP) remain but funded at lower or equal levels (but construction costs are increasing) than previous years.

The new Surface Transportation Program (STP) will receive about $780 million for Transportation Alternatives Program (TAP) projects across the country, which is believed to be about a 26% reduction from the current $1.2 billion spent on Enhancements and similar programs. The new TAP provides for a variety of alternative transportation projects that were previously eligible activities under separately funded programs. Programs such as Safe Routes to School, Transportation Enhancements, and Recreation Trails are now encompassed under the new TAP.

Under the Act, states will sub-allocate 50% of their TAP funds to Metropolitan Planning Organizations (MPOs) and communities for local project grants. States may use the remaining 50% for TAP projects or could spend these dollars on other transportation priorities such as air quality improvement projects. Several of these programs can benefit shared-use path projects, but will create more competition for funding with other eligible transportation projects. In addition to the TAP funds, other categories and programs within MAP-21 where shared-use paths in Louisville would be eligible include Congestion Mitigation and Air Quality (CMAQ), the Recreational Trails Program (RTP), National Highway Performance Program (NHPP), Highway Safety Improvement Program (HSIP) and Surface Transportation Program (STP).

Cost estimates for the various Loop segments have been prepared in previous master plans. These master plans outline per linear mile costs associated with securing the right-of-way, construction of the asphalt path, bridges, rail and road crossings, and the construction of enhancements placed as generally indicated in the *Louisville Loop Design Guidelines* manual. These costs will vary depending on the complexity of each segment, however, they are based on experience of similar projects in Louisville and beyond. Understanding these estimates in each plan will assist in calculated future funding needs and prioritizing the phasing of implementation of the Loop. It will also assist in leveraging private money and other cost-sharing mechanisms applied by other trail systems nationally.

The programs described above pertain to the funds available for designing and constructing the Loop. It will also be critical to seek funding sources to sustain the operation and management functions of the facility. Successful systems around the country have applied a multitude of mechanisms to assure adequate funds for this focus. Guidance for best practices to operating and maintaining a world-class system is provided in subsequent sections of this chapter. The cost allocations identified in a management plan will assist in determining the level of financial support needed.

The following list provides examples of the multitude of Federal, State, and Local Government options in addition to the private sector. These sources would need to be examined further to determine their applicability and feasibility to the Louisville Loop. Many model trail and greenway systems around the country have combined these types of mechanisms to all facets of their implementation. It will be imperative in the early years following the adoption of this master plan to pursue a funding strategy that fits the Louisville region's context.

Potential Funding Sources

Federal government
- Federal Surface Transportation Funds (MAP-21 programs)
- Community Development Block Grants (CDBG)

State Government
- Recreation, transportation, conservation, water quality programs

Local Government
- Taxes
- Bond referendums
- Capital improvement programs

Private Sector
- Land trusts
- Foundations
- Local businesses
- Individual sponsors
- Volunteer work
- "Buy-a-Foot" Programs

OUTREACH AND EDUCATION

One of the goals of the Louisville Loop is to build community engagement by creating and nurturing a widespread belief in the community that the Loop is an essential

part of Louisville's quality of life. Capturing the imagination and support of the people can lead to future success and assure the project as an asset the community is willing to defend. As a facility that will encircle and connect the entire community, there are many opportunities to attract and engage a myriad of interests. A good outreach and educational strategy associated with the Loop will expand its potential reach and purpose as a community asset. By focusing on various users, it will be important to tailor a message to each audience, including government agency staff and decision makers, grassroots supporters, user groups, adjacent landowners, tenants and business leaders, utility companies, educational interests, and tourists. This can be accomplished through physical and digital media used to communicate messages to a variety of users. An important first step would be the development of a comprehensive communications strategy for the Loop to assure the project reaches each of its target audiences with the right messages.

The success of the Loop to date has evolved from a combination of recognizing and celebrating the existing path and its wayfinding signage, presentations, public meetings associated with specific corridor planning, social media, special events, videos, tours, a website, user group engagement, partnerships, and many similar efforts. As the path continues to be planned, designed and constructed in various phases, capitalizing on the groundwork laid in this previous outreach will provide a strong framework for the future.

The communications strategy for the Loop should revolve around the potential programs of the Loop. These could be items related to project advancement and fund raising, trail stewardship, initial trail promotion of new segments, historic, cultural, and environmental educational opportunities, promoting seasonal or featured activities, events, or campaigns, and reminding users of the trail for transportation or recreational use.

Telling the story the story of the Loop will also be a critical factor for success. The planning process for each of the segments involved extensive public outreach and background data gathering of the natural, historical, and cultural resources. This information provides a vital resource for developing interpretive programs in outreach efforts related to tours, educational programs, and presentations. Inviting conservation groups, preservation groups, and educators to use the Loop for the programs will all be a useful for outreach.

Developing a strategy to target and engage all potential audiences will be a critical step in the near future. This will establish the groundwork for the Loop to become an essential component for the growth and prosperity of the region. Key to this will be the continuing development of an advocacy group for the Loop in concert with the Friends of the Loop advisors.

LOOP OVERSIGHT

Louisville Metro Government will be the primary agent, owner, developer, manager, and operator of the Louisville Loop shared-use system throughout Jefferson County. It will be necessary for Louisville Metro to partner with affiliated agencies, private partners, and other local municipalities throughout the County to build and maintain segments of the Loop and associated trails. Louisville Metro will play a significant role in policing, programming, and protecting the Louisville Loop and associated trails. Metro will be responsible for developing an annual report to update the progress on the Loop.

The municipalities in Jefferson County not incorporated as part

of Louisville Metro are a strong partner of the Louisville Loop. Several suburban cities have been active partners in Loop alignment planning and development. Many of these municipalities provide key destinations for residents and businesses within the overall system. The municipalities should work with Louisville Metro to ensure uniform trail design standards in Loop facilities, connectivity outside their borders, and proper trail development ordinances and procedures that complement the Louisville Loop. Partners may also provide assistance in maintenance and operations consistent with Metro design guidelines and management practices.

Funding for early segments of the Loop's planning, design, and construction have been supported through local matches for State and Federal grants, private donations, and private development. The long-term viability of the Louisville Loop will require important resources and support from Louisville Metro Government and all partners. Metro will set the design and maintenance standards of the project. In addition, Metro will play an essential role is supporting the strategic direction of the Loop, particularly in defining and updating specific agency roles.

Cross-departmental collaborations are critical to the success of the future Loop. Key agencies involved in the Loop have included Metro Parks, Metro Public Works, Economic Growth and Innovation, Planning and Design Services, Public Health and Wellness, Metro Police, and associated related agencies including the Metropolitan Sewer District (MSD), Transit Authority of River City (TARC), Waterfront Development Corporation, and Downtown Development Corporation.

Role of Private Partners

Implementing and sustaining the Louisville Loop will require a solid base of involvement and support from the private sector. These partners include developers, businesses, merchants, corporations, foundations, civic organizations, homeowner associations, and individuals. A critical element of their partnership is the opportunity to directly benefit from the successful development and management of the Loop system. There are several roles the private sector can play. Developers play a critical role in trail and bicycle/pedestrian development, particularly whenever a project requires the enhancement of transportation facilities or the dedication and development of greenways. Private partners can also help implement future Loop segments by acquiring and holding land. Local businesses and corporations might consider sponsoring a segment of trail for development. Businesses and corporations might also consider a gift or donation of construction material, finished products that could be used on the trail, or labor to help build and maintain the trail. Additionally, businesses and corporations could provide reduced cost materials, finished products, machinery and/or labor to assist in trail project development. Employers can provide incentives for employees who commute using the Loop system. Among the incentives are bike racks, showers, lockers and cash reimbursements in lieu of employer paid parking subsidies.

Private partners can also play a significant role in programming for the Loop. For example, corporations may choose to locate an event on the trail. Organizations with interest in areas such as environmental, educational, or historic/cultural interest may choose to host tours or fundraising endeavors. Each of these private entities plays a significant role as a direct contact with a wide range of citizen representation. Corporations, organizations, and individuals may also consider co-sponsoring fundraising events on the Loop. 21st Century Parks and the implementation of the Parklands of Floyds Fork provide good examples of the role private partners can play in the Loop.

Role of Citizen Advocates

Citizen participation and support of the Louisville Loop will be a very important part of its success. Support from groups and individuals play a vital role in the development and management of the Louisville Loop trail system. Members of civic organizations and trail user groups can contribute the time and labor to assist trail organizations and Louisville Metro with staffing events, adopting segments of the Loop for maintenance, raising funds and sponsoring for construction of trail heads, educational signage, and public art, among other roles. There are endless ways in which local advocacy groups can become involved with the Louisville Loop with one of the best way being to match the goals and objectives of the group to the needs of the Loop.

Citizen advocates of the Louisville Loop are forming a friend's group to provide assistance to Metro Government and its partners. In other successful greenway and trail systems around the country, citizen groups have played an important role in providing volunteer labor to help maintain the facilities and assist in lowering the cost burden to local governments. Programs such as an "adopt-a-trail" provide the opportunity for volunteers, whether citizen groups, organizations, or individuals, to adopt a trail or segments of trails to perform major or minor routine maintenance tasks. Such tasks can vary from invasive species removal, painting, sweeping, removing litter, or other tasks as designated in the maintenance and operations schedule.

An early success of the Louisville Loop has been the program of volunteers – Loop Watch Group. The Watch Group provides the "eyes and ears" on the trail as a user group reporting any problems, dangers, or inappropriate activities. Their presence

helps build goodwill of neighbors adjacent to the trail and improves the overall perception of safety on the Loop.

Fundraising is another key role a citizen advocates group can perform. Citizen advocate groups in other cities spearhead fundraising campaigns to fund such amenities as trail structures (like bridges) or trail heads. Their role assists in lowering the city's financial commitment while also building awareness and a sense of ownership in the private sector.

Other key roles advocate groups play will be as ambassadors. Many trail advocate groups help the managing agencies to communicate with the public through the development of maps, newsletters, websites, social media activities, and other sources to educate users and improve the quality of the public's experience on the Loop.

Citizen advocate groups provide a critical voice to coordinate efforts and partner with all sectors, whether public or private, to assure maximum potential to reap the multiple benefits that a trail like the Louisville Loop can provide. As Margaret Mead articulated "never doubt that a small group of thoughtful committed citizens can change the world. Indeed, it's the only thing that ever has."

Management and Maintenance

An imperative of the Louisville Loop Strategic Plan is to establish that "the loop corridor is maintained at the highest standards for safe public use, connectivity, recreation, and transportation." The guiding principle throughout the planning of the Loop has been to balance high-quality design with cost-effective maintenance. Operations and management of the entire project should adhere to consistent and agreed upon standards and protocols. Four key objectives have been outlined in this plan, including:

- Determine the appropriate entity and organizational structure to oversee maintenance and protection of the Louisville Loop that appropriately addresses the statutory and regulatory roles of key agencies;
- Develop a general maintenance plan for the Loop that meets the goals of being cost effective, with efficient delivery of services, while protecting and enhancing the ecological integrity of the Loop;
- Ensure public safety within the Loop by developing the necessary relationships with local police, fire, and EMS and developing appropriate initiatives to engage the community to promote public safety;
- Determine conservation initiatives and partnerships that enhance and protect the loop as a provider of habitat, a vital resource connecting the community to the natural world, and that uses public art as a tool to interpret the natural worlds as well as to celebrate special places on the Loop;

The following sections describe in more detail how these initiatives are being pursued and can be developed in future years. Louisville Metro and its partners have begun to ensure a consistent operation and apply the highest standard for path and facility maintenance through its agreements and early implementation projects. In addition, community groups, residents, business owners and other stakeholders continue to be engaged in the long-term stewardship of the resources preserved and enhanced by the Louisville Loop and its complementary facilities.

Management and Operations

An effective and agreed-upon protocol for multi-agency operation and management of the Loop is key to ensure the Louisville Loop remains a safe and secure. Metro has developed a Louisville Loop Management Agreement between Louisville Metro Parks, the Metropolitan Sewer District, and Louisville Metro Public Works that addresses such details as jurisdiction of maintenance, commitment to standards, and documenting issues. Metro Parks will be the Metro agency responsible for supervising Loop maintenance to avoid confusion, complement its mission, promote consistent work practices, and reduce inefficient effort. This includes general coordination of maintenance activities sufficient to ensure that standards of care are being met for the entire Loop. Actual maintenance activities shall be carried out by the respective agencies according to the conditions in the agreement between the agencies.

In addition, Metro Parks is establishing a Loop Maintenance and Conservation Committee of key representatives from the participating agencies to discuss and resolve maintenance issues requiring consultation among participating agencies. Among the roles established by the agreement, the Committee has been tasked to develop:

- an asset inventory of maintenance and conservation needs
- best practices for maintenance and conservation of Loop assets
- a budget for Loop maintenance and conservation of Loop assets.
- a strategy for citizen education and volunteer involvement in Loop stewardship activities (by working with the Friends of the Loop and other community-based organizations.)

The committee consists of the following representatives:

- Metro Parks – Natural Areas Operations Manager
- MSD – Maintenance/Operations Manager
- Public Works – Maintenance/Operations Manager
- Metro Parks –Volunteer Coordination Supervisor
- Metro Parks – Landscaping Supervisor
- Public Works – Bike/Pedestrian Coordinator
- Economic Growth and Innovation – Louisville Loop Representative
- Friends of the Loop Representative
- Metro Parks – Liaison with Public Safety Agencies

Guiding Principles of Trail Management

The Louisville Loop is intended to serve the community as a world-class facility for generations to come. As such, Louisville Metro and its partners as well as the Loop Maintenance and Conservation Committee will be charged to apply best practices of trail operations and management to ensure high-quality maintenance and therefore minimize safety risks to users, potential liability and unexpected costs. The following guiding principles will help assure the preservation of the Louisville Loop:

1. Sound planning and design protects user safety and the environment.
2. Regular inspections, consistent record-keeping and systematic maintenance ensures a quality outdoor recreation and transportation experience.
3. A management plan reviewed and updated annually with tasks, operational policies, standards, and routine and remedial maintenance goals promotes a cost-effective management program.
4. A responsive public feedback system promotes public participation and use of the Louisville Loop and discourages inappropriate use.
5. Be a good neighbor and limit impact to adjacent properties.
6. Sustainable funding assures a world-class trail system and valued community asset.
7. A uniform plan and level of commitment among all respective agencies, partners, and jurisdictions throughout the entire Louisville Loop System ensures continued safety, quality, and cohesive attractiveness.

Maintenance Plan Elements

Metro Parks will work with the Loop Maintenance and Conservation Committee to develop a detailed maintenance plan for the Loop which establishes the maintenance standards adhered to and prioritizes specific activities. It will be critical to maintain a sustainable funding level for maintenance operations in order to complement the principles stated above as well as provide the community the world-class facility as envisioned.

Successful greenway and trail systems from other cities provide models of conventional routine and remedial maintenance functions and programs. These models should be reviewed and emulated to assure an effective and efficient maintenance program and high-quality user experience in Louisville. Two key elements of a management program will be to recognize the components of the Louisville Loop system and to identify essential types of maintenance to be performed on a scheduled and as needed basis. This program will evolve over time as the Loop system develops. A detailed management plan will facilitate an effective communication system with all current and potential partners in maintaining the Loop.
By stating the Louisville Loop is part of a system, it will also be important to recognize the types of facilities or components of the Loop in the development of the maintenance plans. Those components will be:

- Off-street shared-use trails
- Soft surface trails
- Sidepaths (located adjacent to roadways)
- Trail-related corridors (such as landscaping, vegetation and viewsheds adjacent to the trail)
- On-street bicycle and pedestrian facilities in areas that directly connect to the Loop (such as bike lanes, cycle tracks, and bike routes)
- Trailheads and Access Points
- Trail-related park and feature areas (integral to the trail system)
- Associated sidewalks (interconnecting with or adjacent to trails and on-street routes)
- Associated streetscapes (such as Olmsted Parkways and connecting

streets or on-street portions of the trail)
- Associated public art

The detailed maintenance plan should address a variety of measures and actions that will require a consistent inventory and schedule that addresses both routine and remedial maintenance functions. Once the Loop Maintenance and Conservation Committee establishes a maintenance plan and program, it will be critical that it includes the following items:

- List of specific maintenance activities
- Frequency of each activity
- Cost per application of each activity
- Annual cost of each activity
- Who will perform the activity (e.g. Parks, MSD, volunteers, etc.)

Maintenance on Scheduled Basis

- User safety and risk management
- Trails inspection
- Trail sweeping
- Trash Removal
- Tree and shrub pruning
- Mowing of vegetation
- Patrol
- Scheduling maintenance tasks

Maintenance on an As Needed Basis

- Trail Repair
- Trail Replacement or repaving
- Fixture and furnishings maintenance or repair
- Snow and ice removal
- Weed control
- Pest management
- Trail edging (maintain trail width)
- Address detours/disruptions
- Trail drainage control
- Vegetation management including tree and branch trimming and fallen tree removal
- Toilet facility service (or coordination with partnering facilities)
- Trail signage, striping, and lighting
- Remedy “social trails” (such as shortcuts)
- Re-vegetation
- Habitat enhancement and control
- Public awareness
- Trail program budget development
- Coordinate volunteer and adopt-a-trail/street activities
- Records
- Prompt Graffiti and vandalism repair
- Mapping
- Law enforcement
- Proper training of employees

Other Maintenance and Operations Tasks

- Conflict Reduction and Resolution (among trail users)
- Stewardship and enhancement
- Oversight and Coordination
- User/Neighboring Property Feedback and Response
- Signage and displays, public art
- Accident and incident data tracking
- Coordination with partners on bike/pedestrian education and enforcement.

Due to the complexity and magnitude of the Louisville Loop, it will be important to understand current local costs of maintaining the existing trails in addition to reviewing similar trail systems in other comparable communities (e.g. Nashville, Indianapolis, and Raleigh). While other systems (as well as those within Louisville) may have radically different costs per mile depend-

ing on issues such as climate, site conditions, and quality of construction among other items, it will be important to evaluate these costs in order to prepare budget estimates. The table below provides example estimated annual costs typical to one mile (including frequency of activity) based on national averages (source: *Greenville County, SC Comprehensive Greenway Plan*, authored by Charles Flink). An important detail in budgeting for a maintenance plan is considering how to mitigate costs per unit through leveraging partnerships and a robust volunteer program.

Description of Activity	Estimated Annual Costs (2010)
Drainage and storm channel maintenance (12x/year)	$1,000
Maintenance of trail surface (52x/year)	$2,000
Pick up and removal of trash (52x/year)	$2,000
Weed and vegetation mgt. (12x/year)	$1,200
Mowing of 3-ft grass safe zone (52x/year)	$2,000
Minor repairs trail furniture/safety features	$500
Maintenance supplies	$300
Equipment fuel and repairs	$1,000
Total Maintenance costs for one mile of trail	**$10,000**

Public Safety and Security

The design, development, management and operation of the Louisville Loop must be carefully and accurately executed in order to provide a resource that protects public health, welfare, and safety. To reduce the exposure to liability, it is imperative that Louisville Metro implements a safety and security program for the entire Loop system should work with all of its agencies and their partners to ensure a well-defined program.

Public safety is a critical factor to the success and use of the Louisville Loop as a recreational and transportation facility. The perception of safety or lack thereof can prevent individuals from all socioeconomic backgrounds from using the Loop for multiple purposes. The Louisville Loop's route passes through a variety of settings, including on and off-road sections along public right-of-way (streets and roads), parks, and other segments that passes though woodlands and wetlands, near the creeks and the Ohio River, and other areas not easily accessible by normal patrol coverage.

The safety and security program should consist safety and security policies and protocols; the identification of trail management; law enforcement; emergency and fire protection agencies; proper posting; notification and education of Loop user policies; and a timely response system for the public to report safety and security related issues or problems.

Louisville Metro Parks has partnered with the Louisville Metro Police Department (LMPD) and Emergency Medical Services (LMEMS) to develop standard operating procedures to provide appropriate security to all parts of the Loop. These protocols define the various resources available to the department and assist other government departments and citizen groups in maintaining a safe and secure trail system. These resources may include, but are not limited to:

- bicycles
- all-terrain vehicles (ATVs)
- police helicopter
- river patrol watercraft (wherever possible)
- community safety training
- utilizing block watch or trail watch programs

Reports of maintenance or repair issues observed by LMPD members will be reported to the Metro Parks Department via MetroSafe. Citizens with complaints and maintenance related reports should be referred to the MetroCall 311 phone line. Due to modern mobile technologies, Louisville Metro has decided to support a communications system based on cell phone communications, effective signage, and community safety training. Most Loop users are expected to have cell phones when using the loop. This is a faster and more efficient way to call for help in most cases since the call boxes would be spread out and may not always be in good repair.

The following practices are recommended to be included as defining elements of the safety and security program to ensure that these combined approaches to emergency communications are effective and reliable:

1. Encourage Loop users to carry cell phones.
   a. All Loop signage will include language urging users to carry cell phones.
   b. All printed materials and other communications about the Loop will urge users to carry cell phones.
   c. Trail Watch and Friends of the Loop will be asked to communicate the need for users to carry cell phones.
2. Install quarter mile markers and create awareness among Loop users

and emergency responders.

a. Include reference to quarter mile markers in all communications related to the Loop.

b. Ensure that emergency responders, 311 operators and 911 operators are trained to ask an emergency caller for his or her quarter-mile location.

c. Ensure that Trail Watch and Friends of the Loop are aware of the role of quarter-mile markers in the Loop emergency communications system.

3. Train neighborhood residents and regular Loop users who wish to be part of the Trail Watch group in emergency response procedures.

   a. Hold annual Loop safety trainings for Block Watch captains, Louisville Bicycle Club members and other interested in parties in the Loop's emergency procedures.

   b. Hold annual Loop safety trainings for Community Resources officers

   c. Hold annual practice drill for Trail Watch members and emergency responders to apply their training.

4. Remove shrubbery and other obstructions on the path and on-road Loop sections that might contribute to accidents or a perception of danger.

   a. Contract annually for invasive shrub removal, as needed and as funding is available.

   b. Purchase and use vacuum truck on paths and off-road sections.

Other important components of the safety and security program should include:

1. Work with LMPD, LMEMS, Public Works, and Metro Parks to monitor and integrate safety and security measures into the Loop Maintenance and Conservation Committee.
2. Prepare a Loop Safety Manual and distribute this to management agencies and make publically available through the Louisville Loop website.
3. Post user rules and regulations at all public access points to the trail.
4. Prepare a safety checklist for the Loop system, and utilize it regularly during field inspection of Loop facilities.
5. Use the Louisville Loop Work Group to review design development recommendations prior to installation of new Loop segments.
6. Coordinate other Metro agency public information programs that provide information about Loop events and activities that city residents can participate in.
7. Conduct an ongoing evaluation of Loop program objectives. It would be best to have this evaluation conducted by the Louisville Loop Work Group and the Friends of the Louisville Loop.

Action Steps

The following action steps represent the necessary measures to pursue in the years following adoption of the plan to assure the Louisville Loop establishes itself as foundation for the overall quality of life in Louisville. The action items consist of a combination of priorities identified in the Louisville Loop Strategic Plan, Louisville Loop segment master plans, discussions from the Louisville Loop Work Group, and community feedback. The common theme among these items addresses capital investments or more long-term strategic elements that will require greater resources and technical knowledge to implement. The items are not prioritized nor are there costs associated with the item. The principle agency responsible for each action item has been identified. Successful implementation will require greater strategic planning and project management to assure the milestones are met. A critical function on a recurring basis will be regular evaluation of this plan and identification of performance measures to gauge the Loop's impact on the community. This will require not only the review of the following action items, but the complementary items in the supporting documents mentioned in Chapter 3.

Goals of the Louisville Loop:

1. Complete the Loop
2. Build Community Engagement
3. Encourage Health and Wellness
4. Maintain and Conserve
5. Encourage Sustainable Development around the Loop Corridor
6. Ensure Funding to Develop and Sustain the Loop

Short Term Capital Projects Recommendations (1-5 years)

Launch construction and integrate approximately 48 miles (Design and build trail segments) into Loop system within first year of adoption:		
Project	Miles	Potential Partners
Ohio River Valley Levee Trail Extension (Farnesley-Moreman to Watson Lane)	2.5	LMP, LMPW, KYTC, KIPDA, LMC
Middletown-Eastwood Trail Phase (from Old Shelbyville Rd. to N. English Station Rd.)	.6	LMP, LMPW, KYTC, KIPDA, LMC
Middletown-Eastwood Trail Phase I (from N. Beckley Woods Dr to Beckley Station Rd.)	.6	LMP, LMPW, KYTC, KIPDA, LMC
River Road shared-use path (from Beargrass Creek to Zorn Ave.)	1.5	LMP, LMPW, KYTC, KIPDA, LMC
Olmsted Parkways - Southwestern Parkway shared-use path (Shawnee Park to 41st Street)	2	LMP, LMPW, KYTC, KIPDA, LMC
Olmsted Parkways - Algonquin Parkway shared-use path (from 41st Street to Winkler Avenue)	3.4	LMP, LMPW, KYTC, KIPDA, LMC
Olmsted Parkways - Southern Parkway shared use path (from Oakdale Ave. to Iroquois Park)	2.5	LMP, LMPW, KYTC, KIPDA, LMC
Parklands of Floyds Fork Louisville Loop shared use path (from Shelbyville Road to Bardstown Rd)	19	LMP, 21CP
Olmsted Parkways - Eastern Parkway shared-use path (from 3rd Street to Cherokee Park)	3.8	LMP, LMPW, KYTC, KIPDA, LMC, OC
Ohio Valley Northeast Phase I (from East End Bridge to City of Prospect)	1.5	LMP, LMPW, KYTC, KIPDA, LMC, CP

LMP- Metro Parks; **LMPW** - Louisville Metro Public Works; **KYTC**- Kentucky Transportation Cabinet; **KIPDA**- Kentuckiana Planning and Development Agency; **LMC**- Louisville Metro Council; **LMPDS**- Louisvlle Metro Planning and Design Services; **LMPHW**-Louisville Metro Department of Public Health and Wellness; **LMEGI**-Louisville Metro Economic Growth and Innovation; **LDDC**- Louisville Downtown Development Corporation; **WDC**- Waterfront Development Corporation; **LDMD**- Louisville Downtown Management District; **21CP**- 21st Century Parks; **MSD**- Metropolitan Sewer District; **TARC**- Transit Authority of the River City; **OC**- Olmsted Conservancy; **CP**- City of Prospect; **CM**-City of Middletown

Complete Ohio River Valley Northeast Planning Study (Zorn Avenue to Prospect)		LMP, LMPW, KYTC, KIPDA, LMC, LMEGI
Secure funding to update Campground Road section from Cane Run Road to Lees Lane to meet Federal grant requirements, regulations, and guidance through providing separated shared-use path	3.5	LMP, LMPW, KYTC, KIPDA, LMC, LMEGI
Secure funding to repair and update RiverWalk (from Louisville Wharf to Shawnee Golf Course) to meet to meet Federal grant requirements, regulations, and guidance		LMP, LMPW, KYTC, KIPDA, LMC, LMEGI, LDDC, LDMD

Mid-Term Capital Projects Recommendations (5-10 years)

Launch construction and integrate approximately 40 miles (Design and build trail segments) into Loop system 5- 10 years of adoption:		
Project	Miles	Potential Partners
Knobs/Shale Lowlands segment (from Watson Lane to Fairdale Center)	15	LMP, LMPW, KYTC, KIPDA, LMC
Northeast Louisville Loop segment (from US 42 in City of Prospect to Shelbyville Rd in Middletown)	9	LMP, LMPW, KYTC, KIPDA, LMC
Northeast Louisville Loop Middletown-Eastwood Trail segment (Beckley Woods Dr. to Eastwood village center)	2	LMP, LMPW, KYTC, KIPDA, LMC
Connect Olmsted Parkways at Hub area (in vicinity of UofL - See *Olmsted Parkway Master Plan* for reference)	~7	LMP, LMPW, KYTC, KIPDA, LMC
Butchertown Greenway Phase II (from Main Street to Brownsboro Road)	.75	LMP, LMPW, KYTC, KIPDA, LMC
Spring Street protected bike lane (from Beargrass Creek Trail to Butchertown Greenway)	.5	LMP, LMPW, KYTC, KIPDA, LMC
Ohio River Valley Northeast Phase II (Design phase) (from East End Bridge to Caperton Swamp)	5	LMP, LMPW, KYTC, KIPDA, LMC
Incorporate Northwest Parkway separated bike lane into Loop system	3	LMP, LMPW, KYTC, KIPDA, LMC
Cooper Chapel Phase III (from Beulah Church Road to Bardstown Road)	3	LMP, LMPW, KYTC, KIPDA, LMC
Jefferson Memorial Forest soft-surface trail (from JMF Welcome Center to Pond Creek)		LMP, LMC, KIPDA
Construct grade separated facility at Dixie Highway		LMP, LMPW, KYTC, KIPDA, LMC

Long-Term Capital Projects Recommendations (>10 years)

Ohio River Valley Northeast Phase II (Construct phase) (from East End Bridge to Caperton Swamp)		LMP, LMPW, KYTC, KIPDA, LMC
Construct grade separated facility at Bardstown Road and Preston Highway		LMP, LMPW, KYTC, KIPDA, LMC

Programmatic Recommendations

Short-Term (1-5 Years)	**Related Goals**	**Potential Partners**
Adopt Master Plan	1	LMP, LMPDS, LMEGI, LMC
Incorporate Louisville Loop into Louisv ille's 25-year Vision plan and process	5	LMP, LMEGI

Update *Cornerstone 2020 Core Graphic* #7 representing Loop alignment in order to coordinate with current development	1	LMP, LMPDS, LMEGI, LMC
Develop a Communications Plan that addresses branding and engagement strategy to promote awareness, use, and national recognition	2	LMP, LMEGI
Develop Funding Strategy to design and build Loop within 10 years of adoption of this plan	1,6	LMP, LMEGI, LMC
Implement a general maintenance plan, schedule and standards and evaluated progress.	4	LMP, LMPW, MSD
Develop an economic impact study to measure Loop's impact on real estate value, tax revenue, job creation, business incubation, and other elements of the local economy	6	LMP, LMEGI, LMC, 21CP
Request annual budget item for Loop management and maintenance	6	LMP, LMEGI, LMC
Regularly update path planning, design, and construction standards to reflect the current practice.	4	LMP
Promote the Louisville Loop regionally and nationally as a natural, cultural and community asset contributing to a high quality of life	2	LMP, LMEGI
Institute an "Adopt a Trail" program to encourage corporations, institutions and individual private donors to support the Louisville Loop.	2,4	LMP, LMPHW, LDMD
Continue and expand Loop Watch Program, including focus on pedestrians	2	LMP, LMPHW, LMPD
Conduct regular pedestrian and bicycle counts consistent with practices applied by the National Bicycle & Pedestrian Documentation Project	2,3	LMP, LMEGI, LMPW
Organize new events (Buddy Bike Rides, athletic, etc.) and leverage existing events to create awareness of Loop	2,3	LMP, LMPHW, LMPW, WDC
Develop Engagement Program for community centers, Neighborhood Places, and public libraries to encourage use and awareness of Loop as physical activity focus	2,3	LMP, LMPHW
Develop an Economic Development Strategy expanding on 2012 UL Capstone Project of creating trail-oriented development around Loopshed	5	LMP, LMEGI
Partner with the Metropolitan Sewer District to promote and integrate green stormwater infrastructure in the Loopshed.	5	LMP, MSD, LMEGI, LMPW
Measure support for Loop and gain feedback through regular surveys, questionnaires, and focus groups.	2	LMP, LMEGI, LMPHW
Complete wayfinding signage on newly built segments following standards outlined in the Louisville Loop Wayfinding Plan	1	LMP, WDC, MC
Partner with Louisville Commission on Public Art to commission works of art along the Loop.	2	LMP, LMEGI, LMPDS
Use South and Southwest Greenway Master Plan as a model for developing similar plans for connecting neighborhoods to jobs, parks, schools, transit, and other destinations	1,5	LMP, MC, KIPDA, MSD
Pursue National Recreation Trail designation through the US Department of the Interior	4	LMP, LMEGI, 21CP

Improve bicycle pedestrian network and transit connectivity to existing and proposed Loop path system: •Work with Louisville Metro Public Works, Kentucky Transportation Cabinet (KYTC), and KIDPA to coordinate bicycle and pedestrian network connections within the Loopshed •Work with Transit Authority of River City (TARC) to incorporate Loop development and connectivity to transit facilities •Incorporate the Loop system and connecting greenways into all long range transportation planning •Work with potential private and public partners to synchronize path development and leverage resources	5	LMP, LMEGI, KIPDA, LMPW, TARC, KYTC
Provide support to the development of an external advocacy group, The Friends of the Loop.	2	LMP, LMEGI, LMPHW
Mid-term (5-10 years)		
Review and update the Louisville Loop Master Plan as needed, at a minimum of every five years, with input from the Louisville Loop Work Group, Loop Maintenance and Conservation Committee, local advocacy groups, and partnering agencies.	1,4	LMP, LMEGI, LMC
Work with Kentuckiana Regional Planning & Development Agency (KIPDA) and surrounding municipalities within region to connect the Loop to a regional greenway system	1,5	LMP, LMEGI, LMPW, LMC
Coordinate with utility companies to identify partnership projects and improvement projects within the Loop system and connecting paths	5,6	LMP, LMPW, KYTC, KIPDA,
Incorporate wayfinding signage on newly built segments	1,2	LMP, LMPW, KYTC, KIPDA, LMC
Monitor and evaluate the health impact of the Loop on improving Louisville's health outcomes	3	LMP, LMPHW
Long-term (Greater than 10 years)		
Secure sustainable funding source for long-term maintenance	6	LMP, LMEGI
Review and update the Louisville Loop Master Plan as needed with input from the Louisville Loop Work Group, Loop Maintenance and Conservation Committee, local advocacy groups, and partnering agencies.	1,4	LMP, LMEGI, LMC
Develop a long-term governance body (such as a commission) to assure long-term maintenance and overall sustainability of the Louisville Loop.	4,6	LMP, LMC

Evaluation

Understanding the degree to which the Louisville Loop is playing a role in impacting the city in areas such as economic development, public health outcomes, government services, or other outcomes will be a critical element of evaluating the project's success. There will need to be regular collection of data on usage, economic impact, program implementation, and funding.

Measuring performance outcomes is becoming an important emphasis of decision makers, funding sources, community supporters, and others who oversee the effectiveness of an investment. Regular measurement of the indicators below will allow Louisville Metro to provide documentation for grant pursuits and budget requests confidently showcasing the benefits of the system and project to the public, and help evaluate how and where investments are made. Agency partners, volunteers, and the Louisville Loop Work Group can assist in collecting some of this information and the ability to collect some measures may not be possible in the short-term. These measurements may evolve over time as the project is implemented in phases.

Annual review of the measurements will be a critical function of the Louisville Loop Work Group, Loop Maintenance and Conservation Committee, local advocacy groups, and partnering agencies. The data will be collected, compared to what was planned or intended, and used to evaluate whether the project is meeting goals, effecting change, and improving the quality of services. An annual report will be prepared to report the performance measure findings and other updates on the project.

Performance Measure	Source
Completed path miles per year	Metro Parks
Bicycle and pedestrian user count locations	Metro Parks
Bicycle and pedestrian user counts	Metro Parks
Residents within 1 mile of access points	PVA and US Census Data
Annual funding allocation for routine maintenance of Loop facilities	Metro Parks
Number of volunteer hours on Loop	Metro Parks
Response time to path maintenance request	Metro Parks
Adopt-a-Loop Mile partners	Metro Parks
Number of funding partners	Metro Parks
Performance Measure	**Source**
Grants pursued/awarded	Economic Growth and Innovation, Metro Parks, and Public Works
Members of Friends of the Louisville Loop	Metro Parks
People engaged through public outreach	Metro Parks
New building permits and investment in Loopshed	Planning and Design Services
New jobs located near Loop route	Economic Growth and Innovation
Change in physical activity, obesity, and other health factors (long-term)	Louisville Metro Department of Health and Wellness
Presentation to neighborhood groups, businesses, schools, etc.	Metro Parks and Economic Growth and Innovation
Number of events held on Loop route	Metro Parks
Level of user satisfaction	Metro Parks
Rotation time for mowing and sweeping given segments	Metro Parks
External Press Coverage (articles and blogs) with mention of Loop	Metro Parks and Economic Growth and Innovation

APPENDIX A: LDC Provisions

The following table provides a general overview of key terms outlined in the Land Development Code (LDC) that mention the concept "greenway", "trail", or other terms that may relate to the development of the Louisville Loop. The list following the table provides specific provisions within the LDC. The purpose of this Appendix is to provide convenient access to information most pertinent to the Louisville Loop.

LDC Chapter Part	Subject	General Description
Chapter 1, Part 2	Greenway definition	Greenway - A linear open space at least 50 feet wide or other width as established by a legislatively adopted greenways plan, along either a natural corridor such as a riverfront, stream valley or ridge line, or along a railroad right-of-way converted to recreational use, a canal, scenic road or other route managed for public use including wildlife habitat. Greenways typically link parks, nature preserves, cultural features or historic sites with each other or with populated areas.
4.1.3.B.2.a	Lighting	All luminaries shall be aimed, directed, or focused such as to not cause direct light from the luminary to be directed toward residential uses or protected open spaces (i.e., conservation easements, greenways, parkways) on adjacent or nearby parcels, or to create glare perceptible to persons operating motor vehicles on public streets and right-of-way.
4.2.8.D.3	Athletic Facilities in industrial zones	To accommodate greenways or similar open space use of environmentally constrained land, with or without trail systems or other recreational facilities. If Greenway or Environmentally Constrained: The site is subject to environmental constraints regulated in Chapter 4 Parts 6, 7, or 8, and is precluded from development by conservation easement or restriction on the development plan.
4.8.6.D.2	Riparian Buffer Zone Uses	Biking or hiking trails allowed in middle zone (between 25 and 75 feet from stream bank) in most non-traditional form districts.
4.8.6.J	Protected Waterway Crossing	Trails, and utilities are permitted in a Buffer Area and may cross the protected waterway, subject to the Planning Commission's approval based on the recommendations of the Public Works and DPDS and the MSD
4.8.6.M.f	Tree Removal	Removal of trees as part of an approved plan for stream side recreation or access (e.g. pedestrian trail) or as part of an approved utility or road construction project.

LDC Chapter Part	Subject	General Description
5.8.2	Greenway System	Where the property being developed is depicted in a legislatively adopted greenway/trail plan as the recommended location of a community access greenway/trail, an easement or other provisions for public access through the site shall be provided in accordance with the standards found in Chapter 10 Part 5. If the greenway/trail already has been constructed on the abutting property or if the proposed development falls under the category 3 threshold within the applicable form district, the greenway/trail shall be extended through the subject site at time of development of the site.
7.11.2	Secondary Conservation Area (Conversation Subdivisions)	Secondary Conservation Areas (SCA): Areas of permanently protected open space within Conservation Subdivisions that are locally noteworthy or significant features of the natural or culture landscape such as mature woodlands, hedgerow and freestanding trees or tree groups, wildlife habitats and travel corridors, prime farmland, greenways and trails, historic sites and buildings, and scenic viewsheds.
7.11.9.E.3.a 7.11.9.E.3.b	Sidewalks and Paths (Conservation Subdivisions)	Create a linked network of walkways connecting all uses with parks and other greenway land areas. Link loop streets and the ends of cul-de-sacs with the street network, trails, or greenway land behind the lots served by those loop streets or cul-de-sacs.
10.2.4	Perimeter Buffer Areas	Perimeter landscaping buffer areas may contain trails as long as the width of the buffer area is at least 25 feet.
10.5.2	Open Space types	Greenways are considered open space due to the purpose of it as a natural Resource Protection / Public Health and Safety tool
10.5.4.A.2	Open Space Standards	Parking lots may not be used to meet an open space requirement or incentive unless they are designed as part of the open space (including trails or greenways) and are intended primarily for users of the open space.
10.5.4.B.2	Internal open space connectivity	All open space located within a site shall be integrated and connected with any part of an adjacent and designated park, open space or greenway.
10.5.4.C.1	Greenways as open space	Greenways designated within and meeting the design standards of a legislatively adopted greenways plan or subsequent watershed master plan may be utilized to meet an open space requirement or incentive.

Specific LDC Provisions

Chapter 1, Part 2 Definitions
Greenway - A linear open space at least 50 feet wide or other width as established by a legislatively adopted greenways plan, along either a natural corridor such as a riverfront, stream valley or ridge line, or along a railroad right-of-way converted to recreational use, a canal, scenic road or other route managed for public use including wildlife habitat. Greenways typically link parks, nature preserves, cultural features or historic sites with each other or with populated areas.

4.1.3 LIGHTING
B. Regulations
2. Control of Glare – Luminary Design Factors
a. All luminaries shall be aimed, directed, or focused such as to not cause direct light from the luminary to be directed toward residential uses or protected open spaces (i.e., conservation easements, greenways, parkways) on adjacent or nearby parcels, or to create glare perceptible to persons operating
motor vehicles on public streets and right-of-way.

4.2.8 Athletic Facilities
D. Athletic facilities in the M-1, M-2 and M-3 districts subject to special standards may serve three purposes:
3. To accommodate greenways or similar open space use of environmentally constrained land, with or without trail systems or other recreational facilities.
If Greenway or Environmentally Constrained: The site is subject to environmental constraints regulated in Chapter 4 Parts 6, 7, or 8, and is precluded from development by conservation easement or restriction on the development plan.

4.8.6 Standards for Protected Waterways and All Buffer Areas
D. Uses Permitted in the Middle Buffer Zone (Table 4.8.1)
2. Biking or hiking trails
E. Uses Prohibited in the Outer Buffer Zone (Table 4.8.1).
2. Permanent structures or impervious surface coverage with a footprint of greater than 100 square feet, with the exception of approved recreational trails.
J. Stream and Buffer Area Crossings: Roads, Bridges, Trails, and Utilities. Roads, bridges, trails, and utilities are permitted in a Buffer Area and may cross the protected waterway, subject to the Planning
Commission's approval based on the recommendations of the Public Works and DPDS and the MSD.
M. Tree and Vegetation Removal.
f. Removal of trees as part of an approved plan for stream side recreation or access (e.g. pedestrian trail) or as part of an approved utility or road construction project.

5.8.2 Greenway/Trail System
Where the property being developed is depicted in a legislatively adopted greenway/trail plan as the recommended location of a community access greenway/trail, an easement or other provisions for public access through the site shall be provided in accordance with the standards found in Chapter 10

Part 5. If the greenway/trail already has been constructed on the abutting property or if the proposed development falls under the category 3 threshold within the applicable form district, the greenway/trail shall be extended through the subject site at time of development of the site.

7.11.2 Definitions

Secondary Conservation Areas (SCA): Areas of permanently protected open space within Conservation Subdivisions that are locally noteworthy or significant features of the natural or culture landscape such as mature woodlands, hedgerow and freestanding trees or tree groups, wildlife habitats and travel corridors, prime farmland, greenways and trails, historic sites and buildings, and scenic viewsheds.

7.11.9 Technical Standards for Conservation Subdivisions

E. Streetscape Standards

3. Sidewalks. Public sidewalks (including informal walkways and footpaths) shall:

a. Create a linked network of walkways connecting all uses with parks and other greenway land areas.

b. Link loop streets and the ends of cul-de-sacs with the street network, trails, or greenway land behind the lots served by those loop streets or cul-de-sacs.

10.2.4 Property Perimeter Landscape Buffer Areas

B. Explanatory Text and Exceptions: Property perimeter Landscape Buffer Areas may contain walks, trails, or other similar elements, provided that the required plant material (as defined in the part to follow) is not eliminated and the Landscape Buffer Area is at least 25 feet wide. Property perimeter Landscape Buffer Areas shall be free from all other development including buildings, parking, driveways or other structures except those attendant to public utility service within a dedicated easement. Outdoor storage or stockpiling of materials is not permitted within property perimeter Landscape Buffer Areas.

10.5.2 Types of Open Space

B. Open Space for Natural Resource Protection / Public Health and Safety

The following are examples of open space consistent with this type.

4. Designated greenways

10.5.4 Open Space Standards

A. Standards for All Types of Open Space

2. Parking lots may not be used to meet an open space requirement or incentive unless they are designed as part of the open space and are intended primarily for users of the open space (e.g., parking for sports field, greenway or park users). Semi-pervious paving systems shall be required when any parking lot proposed to be used as open space contains more than 20 parking spaces.

B. Standards for Outdoor Recreation

2. All open space located within a site shall be integrated and connected with any part of an adjacent and designated park, open space or greenway.

4. All pedestrian and bicycle corridors used to meet an open space requirement or incentive may not be located in a public right-of-way, shall be at least 30 feet in width, and the paths and trails located within them must be designed to the standards contained or incorporated by reference in the KIPDA Regional Pedestrian and Bicycle Plan.

C. Standards for Natural Resource Protection / Public Health and Safety Purposes

1. Greenways designated within and meeting the design standards of a legislatively adopted greenways plan or subsequent watershed master plan may be utilized to meet an open space requirement or incentive.

APPENDIX B: Loop Overview Map

Louisville Loop

METRO Louisville

For more information contact:

METRO LOUISVILLE PARKS AND RECREATION
1297 Trevilian Way
Louisville, Kentucky 40233-7280
tel 502/456-8141
fax 502/456-8116
www.metro-parks.org

Greg Fischer, Mayor
Louisville Metro Council