

Prepared For:



# City of London / Laurel County Bicycle & Pedestrian Master Plan

July 13, 2015

*Cycling Capital  
of Kentucky*



## Section 1: Introduction and Background

### **Purpose of the Document**

This document has been developed to inform and guide development, transportation, tourism, economic, and community based decision making in the City of London and Laurel County, with respect to bicycling and pedestrian development. The projects in this document have been identified by the people in these communities as important and those proposed improvements should be used as a planning tool for future projects. It is a recognition of the many existing positive impacts that cycling and pedestrian transportation have to the economic, social, and community environments in the City of London and Laurel County, and an endorsement of the potential for increased economic growth and community enhancement that comes from fully embracing non-motorized transportation as a viable alternative to automobiles.

### **Plan Development Process**

This plan has been developed with coordination between multiple agencies and organizations, with input from the public considered throughout the process. Since this is a civic plan for a very active community, outreach has been focused on contacting as many different groups and smaller communities as possible. Comments and ideas from the public were used to come up with initial ideas for projects, to discard unfeasible projects or projects which would be unlikely to be used, and as part of the prioritization discussed in Section 7.

### ***Planning/Project Team Meetings***

A small steering committee met on April 9<sup>th</sup> 2015, in the basement of the London City Hall, to discuss the scope of the project, determine project goals, identify areas of study, plan and coordinate the project schedule, and to discuss community philosophies.

A second meeting took place on June 11<sup>th</sup> 2015, to discuss project ideas, coordinate with Kentucky Transportation Cabinet (KYTC) District 11 personnel, and prepare for a second upcoming public meeting. This meeting also included the initial coordination with staff from Virginia Tech's landscape design/streetscape team, who were in London to work on a recently awarded streetscape grant.

### ***Public Meetings***

Public meetings were held in the spring and early summer of 2015 to gather input, ideas, and present possibilities to the communities of the City of London and Laurel County.

### ***Public Survey***

A public survey was used in the time between the two public meetings to collect opinions and ideas about existing conditions. This survey generated 142 responses, which are analyzed and discussed in Section 6, on page 37 (this document).

### ***Field Investigations***

Field investigations were conducted during May-July of 2015. HMB personnel visited all project areas, took photographs, interviewed available landowners, observed existing levels of use, and took notes about possible project modifications.

### ***GIS Based Analysis***

Before, during, and after the conclusion of field investigations and interviews, GIS data was used to review potential project corridors, identify any features previously overlooked, and to calculate potential impacts and lengths of projects. A digital terrain model was constructed, and slope analysis was used to ensure that no proposed project included slopes above those recommended for separated multi-use paths.

### **Notes on Implementation**

This document will be submitted for approval and adoption to the London City Council and the Laurel County Board of Commissioners. It will also be submitted to the Kentucky Transportation Cabinet, and to the Cumberland Valley Area Development District for comments. A final document will be distributed for public reference at the local library, local government offices, and the local outdoors outfitter. A copy will also be kept and used at the KYTC central office, KYTC district offices, and City Hall. An electronic version will also be made available on the City of London's website.

## Section 2: City/County Goals

### Goal Development Process

The goals of this plan were developed through conversations with community members, civic leaders, consultation with experts, and research of published reports. These goals have been written so that they can be reached, and also so that they can also be stretched to further encourage development. They reflect the ideas of the organizations which worked to develop this plan, and address the concerns of the community as determined in the public survey.

#### ***Goal 1: To improve the network of safe places to walk and ride for in town transportation.***

This goal recognizes one of the central issues concerning non-motorized transportation in London and Laurel County: a lack of connectivity of existing infrastructure. There are many existing pedestrian facilities (described in Section 4) which are functional, safe, and enjoyable. However, there are even more gaps between those facilities, which prevent their regular use. This plan will help by closing those small gaps and adding new facilities to provide a connected network of facilities, routes, lanes, and other options for non-motorized transportation.

#### ***Goal 2: To expand tourism and regional recreational riding.***

This goal recognizes the economic and community benefits that come from cycling. As several survey respondents commented, the Redbud Ride and other sponsored rides and races bring hundreds of athletes and cycling enthusiasts to London from all over the region and country, providing significant economic and community benefit.

#### ***Goal 3: To enhance public health by encouraging biking and walking.***

This goal recognizes the public health benefits of human powered transportation, and was identified early in the project development process. Members of the steering committee and survey respondents brought up the health benefits of biking and walking, and the survey overall showed that 98% of respondents thought that new trails/facilities would be beneficial to walking and biking for health.

### Goal Use in Plan Development

These goals were used in these steps in the development of this plan:

- Identifying areas of study/focus
- Identifying potential projects
- Determining appropriate, goal oriented solutions
- Assessment of potential project success
- Prioritizing project implementation

These goals will be used in the future to:

- Assess Project Success
- Determine whether to dismiss projects yet to be implemented
- Identify potential 'next-step' projects

## Section 3: Policy Framework / Previous Work

### City/County Policy

While, the City of London has made several efforts towards developing a comprehensive policy towards Bicycle and Pedestrian usage and facilities, this document is the first step towards formalizing the recommendations of several studies and documents to adopt a plan that would assist in incorporating bicycle and pedestrian facilities with all new development.

Within the London-Laurel Joint Planning Commission Development Ordinance, adopted in September 17, 1996, only one mention of bicycles can be found, “Where it is desirable, consideration shall be given to other modes of transportation including pedestrian and bicycle.” (London Development Ordinance, 1996).

The development ordinance does specifically address sidewalks/walkways in several sections, and shows a prescriptive approach towards these types of facilities. This ordinance requires sidewalks in most types of developments, and specifies that sidewalks be at least four inches thick and at least four feet wide. This style of sidewalk is marginally sufficient for compliance with ADA Accessibility Guidelines, which requires 36 inches of continuous clearance, but does not include the ADA required turnaround/passing areas every 200 feet. It also makes no mention of distance from the edge of pavement or curb.

Minimal mention of bicycle and pedestrian policy was also included in the London-Laurel Comprehensive Plan adopted in 2007 (Lowrey). This policy encouraged the development of a more thorough Bicycle and Pedestrian Master Plan, and described ideal situations where “all new highways and streets...should be designed and constructed under the assumption that bicyclists will use them.” (Lowery 2007). This idea is repeated several times throughout the document, but remains a strong suggestion, not code requirements.

In 2010, an eleven page London Connectivity Master Plan was developed to provide multiple options for transportation connectivity, including bicycle and pedestrian travel. In this, several large scale project ideas were proposed, but no policy or regulations-based suggestions were made. The visions of many of those projects were carried over into this document.

It is hoped that by adopting the master plan described in this document, momentum can be developed which could lead into the adoption of complimentary municipal policies and ordinances, to finally require consideration, planning, and implementation of adequate bicycle and pedestrian facilities with all new development and major reconstructions.

### Cumberland Valley Area Development District

The Cumberland Valley Area Development District, which includes both the City of London and Laurel County, does not have an active Pedestrian/Bicycle master plan, but has published a five page document outlining their FY2015 goals and objectives (CVADD 2015). One of the six goals identified in this document is to “Maintain and improve existing infrastructure in the region while including all appropriate modes of transportation” (CVADD 2015, pg 4). This goal includes two objectives which relate to Pedestrian/Bicycle facilities:

- Pursue the incorporation of providing greenways, bicycle, pedestrian, and multi-purpose trails into project planning.
- Encourage participation from individuals representing these modes of transportation on the CVADD's Regional Transportation Committee.

## **KYTC Bicycle and Pedestrian Plan**

The state of Kentucky adopted a Pedestrian and Bicycle Policy in 2002, in response to a US Department of Transportation publication encouraging the accommodation and/or consideration of bicycle and pedestrian facilities in roadway projects. A list of requirements is included in that plan to trigger this policy on KYTC projects. These requirements are paraphrased below:

- Are there already bicycle or pedestrian facilities on the existing roads?
- Is the project in an urban area?
- Is the project near residential, commercial, or other land uses where people need to travel? If not, is any development like that planned in the next 20 years?
- Is there already pedestrian traffic along the route?
- Is there public interest in pedestrian and bicycle facilities?
- Does a state, local, or regional plan identify the area or type of roadway as designated for pedestrian/bicycle improvements?

Additionally, the policy states that "KYTC project-level decisions will complement local bicycle plans to the maximum reasonable extent" (KYTC 2002, page 4).

This London/Laurel County Bike/Pedestrian master plan is intended to help encourage the inclusion of bicycle and pedestrian facilities in KYTC plans and to provide guidance for making those considerations as early in the transportation project development process as possible. A copy of this plan will be provided to the KYTC, and to local officials to ensure that this analysis can be used to help develop projects in the area.

## **USDOT Policy Statement on Bicycle and Pedestrian Accommodation Regulations and Recommendations**

The USDOT announced a policy statement in March, 2010, which re-affirmed the DOT commitment to "[incorporating] safe and convenient walking and bicycling facilities into transportation projects" (Lahood, 2010). This policy statement encouraged all transportation agencies and communities to do the following, paraphrased below:

- Consider walking and bicycling as equal to and significant as other transportation modes.
- Make sure that all transportation facilities are accessible to all people.
- Improve non-motorized facilities during projects which are primarily intended to enhance motorized transportation.

This document serves to show the City of London and Laurel County's support for and compliance with these and all other applicable policies. By preparing this plan and making measurable steps towards creating a pedestrian and bicycle friendly city, the City of London and Laurel County are showing that all modes of transportation are important, and all contribute to a better, healthier, and more prosperous community.

## Section 4: Existing Conditions and Analysis

Laurel County and the City of London have very strong outdoors recreational communities (Figures 4.1 and 4.3) - and self identify as "The Cycling Capital of Kentucky."

There are dedicated shops for both cyclists and runners, and routes identified for both types of recreation. There are also competitive and non-competitive events for both, as well as clubs and local support staff - actively encouraged by the local government and non-governmental organizations.

Laurel County and the City of London do not, however, have active communities of non-recreational cyclists/pedestrians. From observations during field investigations and interviews with local residents, very few people commute to work without a car. Some use was observed, but seemed to be centered around lower income communities, where cars were not an option.

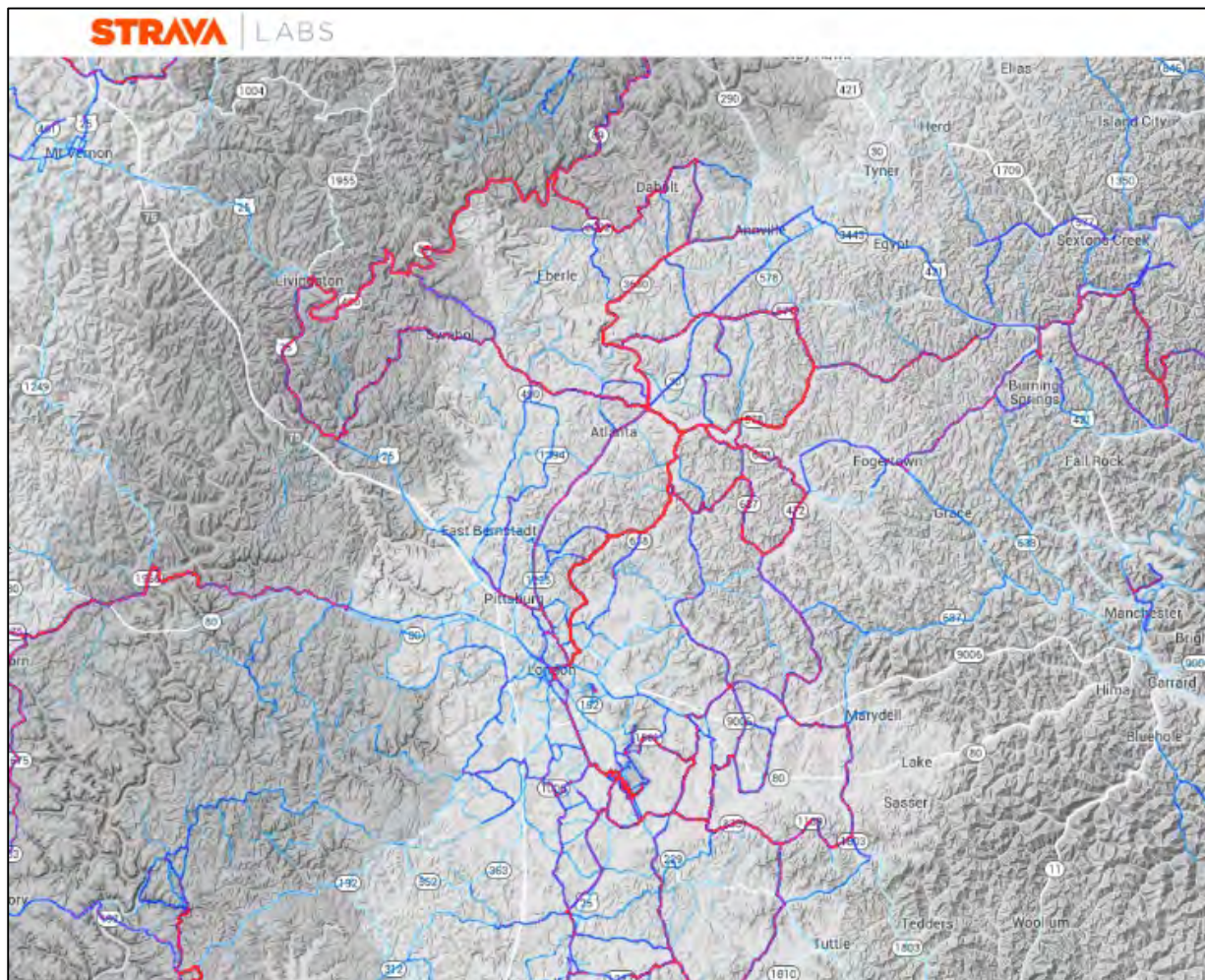


Figure 4.1: Map of most common cycling routes ridden by users of the Strava Cycling App. Routes most commonly ridden are red, others with less use are blue.

### Existing Bicycle Resources / Events

London and Laurel County currently have a vibrant and active recreational cycling community (Figure 4.1). Several large organized rides (with 100+ riders) occur every year, and the Cumberland Valley Cycling Club (CVCC) has three club rides a week as well as sponsoring



a weekly beginners ride. The downtown area supports an outdoors recreation outfitter with bicycle service and repair staff, and several local businesses in the downtown area have installed bike racks outside of their stores. Maps of common cycling routes are available at many offices around the area, and the London/Laurel Farmers' Market serves as a trailhead for many rides. There are multiple signed recreational cycling routes (Figure 4.2), and the City was recently designated a Kentucky Trail Town.

Mountain biking is less organized in London and Laurel County, but seems to be at a similar level of popularity. There are trails in several parks which show signs of regular use and maintenance, and interviews with CVCC members revealed many cyclists ride both road and mountain bikes.

Intra-city cycling for in town transportation, in contrast, is far less common or popular. During multiple field visits, only a handful of cyclists were observed who did not appear to be cycling for recreation. No designated facilities exist, and few if any community resources outside of the downtown area have bike racks installed. No events, such as National Ride-Your-Bike-to-Work week, are organized.

However, interviews with multiple residents revealed a desire for the possibility of intra-city cycling. Residents told stories during public meetings of cycling to work sometimes,

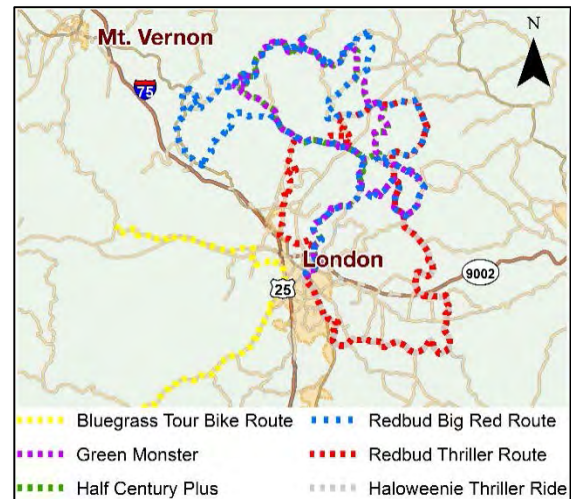


Figure 4.2 Designated Recreational Bike Routes in Laurel County.

but not feeling safe. Other residents had similar sentiments or stories, or wanted to be able to walk to work.

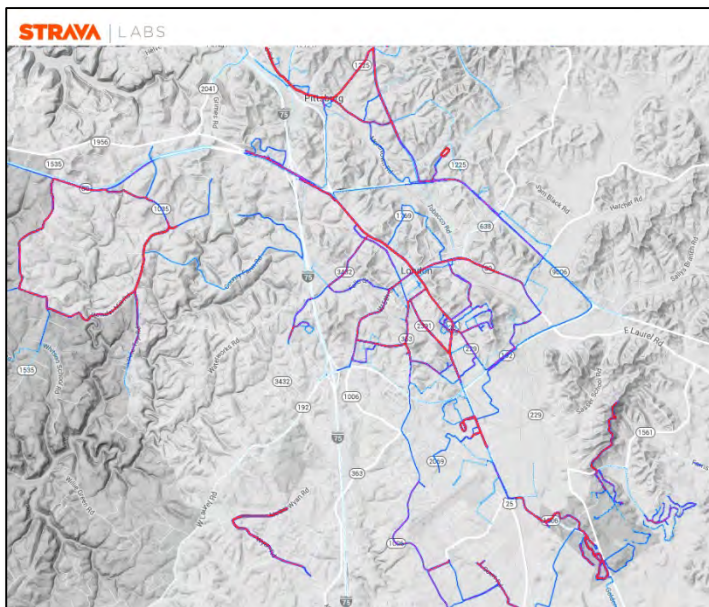


Figure 4.3 Map of most common walking/running routes used, as presented by the users of the Strava App. More commonly walked routes are shown in red, less common in blue.

### Existing Pedestrian Resources / Events

Walking and running in London and Laurel County are again, mostly recreational. While there are several running tracks associated with the local high schools, much of the running/walking activity in the area occurs in downtown London, on weekday evenings.

There are several sporting goods stores which provide running/cycling supplies in Corbin KY and in London, including an outdoors outfitter - Mike's Hike & Bike. Many of the running/walking events in the

community are sponsored in conjunction with other community festivals, like the World Chicken Festival, or are sponsored by local non-profits as a fundraiser. These events are not annual, but one appears to occur 3-5 times per year. There is a single annual triathlon in Laurel County.

No designated walking tours exist of the downtown area, though the suggestion was made at early meetings. Interviews with residents and responses to the public survey also indicate a desire for enhanced pedestrian-friendly crosswalks downtown.

## Current Bicycle and Pedestrian Facilities

### Collection Methods

Data was initially obtained from the Cumberland Valley Area Development District office GIS database. This data was checked and updated as appropriate, with field investigations using high precision GPS receivers to document any additional facilities or spots where maintenance was required. All areas marked on Project H were walked, and additional areas around the downtown London area were also investigated. HMB personnel also used aerial photographs, and a high precision handheld GPS unit to locate potential project alignments.

### Results

The City of London has a comprehensive network of sidewalks in the downtown area, though gaps in connectivity may occur because of deteriorated sections. There are fewer and fewer sidewalks outside of the downtown area, though many remain along main travel corridors (KY 229, US 25, etc). A map of facilities is included in Appendix B.

There are no dedicated bicycle facilities in London or Laurel County, other than a few miles of mountain bike trails along Laurel Lake.



Figure 4.4 Example of disconnected sidewalk, on Dons Drive.

### Highlights

It is worth noting that many of the sidewalks are not of a standard width, nor do they appear to have had regular maintenance, especially in the neighborhood along Falls Street. There are also large gaps in coverage in the southern end of the city, where city code has required the installation of sidewalks for new construction, but has not required they connect to any other facilities. (Figure 4.4)

### Total Facility Amounts:

	Existing	New Proposed
Sidewalks	28.5 miles	0.23 miles
Bike Lanes	0 miles	1.73 miles
Multi Use Paths	0 miles	10.67 miles
Neighborways	0 miles	1.49 miles

## **Community and Civic Resources**

### ***Existing Schools, Youth Centers, Shopping, Workplaces, Museums etc.***

The Laurel County school system has fifteen elementary, middle, or high schools which are mostly scattered throughout the suburban belt around London. The exception is the London Elementary School, which is located on Main Street. Out of the fifteen, only the London Elementary School is currently connected to existing pedestrian infrastructure.

One of the main commercial areas is located near Exit 38, from I-75. Several grocery stores, larger chain shopping centers, a hardware store, and other retailers are located within 0.5 mile of the exit. There are also many neighborhoods in close proximity to that exit. This area has large gaps in coverage of existing pedestrian infrastructure.

The downtown London area does not have as many residences as other parts of London/Laurel County. It is mostly offices and government buildings, with some retail. There is a now-defunct college campus near downtown, but it remains mostly unused. There are also multiple churches and community centers in the downtown area. The outdoors/cycling shop is located downtown, on Main Street.

The YMCA of Laurel County and numerous churches are located near the downtown area, and are connected to the existing pedestrian infrastructure.

### ***Relationship to Resources***

No new community resources are proposed in this document - London and Laurel County appear to have excellent existing resources dedicated to supporting cycling, running, and recreational activities.

Instead, multiple facilities are proposed to connect these resources to the public - to enable travel between these resources and residences to enhance their ability to provide the community services they offer. Table 4.2 (next page) shows the community resources that will be connected by the proposed projects - and since the projects all are interconnected, travel from one resource to any other resource will be possible.

*Table 4.2 Community Resources to be connected with the projects in this plan, in alphabetical order*

- Commercial / Retail Shops near Exit 38
- Community Christian Church
- Corinth Baptist Church
- Cornerstone Christian School
- Downtown Community Garden
- First Baptist Church
- Heritage Hills Event Center
- Hicks Lane Neighborhood
- IGA
- Kmart
- Kroger
- Laurel County African American Heritage Center
- Laurel County O.P.A.C “Senior Life Center”
- Laurel County Public Library
- Laurel County School of Innovation
- Laurel Village Retirement Community
- Levi Jackson State Park
- Levi Jackson State Park Campground
- London Campus of SCC
- London Downtown
- London Elementary School
- London Post Office
- London Shopping Center
- London Wellness Park
- London Women's Care
- Kentucky Family Practice
- Marvin Gardens Mobile Home Park
- Meadowbrook Road Neighborhood
- Mill Street Park
- Multiple Banks
- Multiple Restaurants
- Multiple Shops
- North Laurel High School
- North Laurel Middle School
- Redbird Lane Neighborhood
- Souls’ Harbour Church
- South Laurel High School
- South Laurel Middle School
- Southland Drive Neighborhood
- St. Joseph Hospital
- St William Catholic Church
- Sublimity Elementary School
- Tara Estates Neighborhood
- Walmart

## **Section 5: Proposed Facilities/Network**

Every project described in this section is intended to fill an existing need. These projects have been planned to take advantage of existing state or city owned land whenever possible, and have been planned to provide the most efficient, least cost solution. They all possess independent utility - i.e. none of them require any other project for them to be useful because they connect specific locations or resources to other related locations.

The project description pages which follow all have a similar format: a Project Idea, a Project Description, Project Lengths, Construction Cost Estimates, and Benefits and Potential Challenges. These sections will be explained below, to help understand their purpose:

### ***Project Idea***

This can be understood as the 'point' of the project. This single sentence explains what the end result of the project will be, and what any ideas must do to successfully complete the project. It is similar in usage to a 'purpose and need' statement, as required in all transportation projects, and drives the planning behind the rest of the project.

### ***Project Description***

This is the 'how' of the project. It describes an alignment/facility type/specific action that is proposed to achieve the project idea. It is usually specific enough to allow general comprehension ( i.e. "an 8' asphalt multi-use path will run along the northern side of the highway") but not so specific that it rules out other creative solutions, or commits to a single alignment. The point of this section is so that anyone reading the document can come away with a basic understanding of what the project is about - what should be done, where, and how.

### ***Project Lengths***

This section clearly lays out the amounts and types of all of the proposed facility constructions, to be absolutely clear about what is being proposed. It also facilitates comparisons between projects.

### ***Construction Cost Estimates***

The figures developed here have been compiled from consultation with construction engineers, comparison with previously developed estimates for bicycle and pedestrian infrastructure, and review of available industry literature. They are estimates for the construction only, and do not include engineering or project development fees, and are ranges intended to inform prioritization and planning. They are not definitive numbers, and should be expected to change over time.

### ***Benefits and Potential Challenges***

For efficient planning, it is necessary to understand the reasons to undertake a project, and the possible roadblocks in the way. Those are presented in this section, along with any analysis/impact comparison/possible mitigation which has been developed for this project. This section is meant to step away from the construction, and to show the larger context within which the project must be developed.

## Proposed Facility Types

The proposed facilities all fall into four categories: sidewalks, neighborways, multi-use paths, or protected bike lanes. These facilities all provide extremely high levels of cyclist and pedestrian comfort and safety, and can still be constructed cost effectively.

### Sidewalks

These are the most common form of non-motorized transportation infrastructure and are found throughout London. The sidewalks proposed in the following projects should all conform to ADA and FHWA guidance, should be at least 4' wide, should include rest areas as needed, and could also include street furniture.

### Neighborways

These are the most cost effective type of project proposed, because they take advantage of existing infrastructure. These routes will be on very low traffic streets with low speed limits in residential neighborhoods. Wayfinding and awareness signs will be installed along the existing roadway, and designated neighborways will be mapped and included with other facilities. Neighborways will only be designated on roads where a cyclist can expect to feel completely safe and where children can safely ride on the roadway.



Figure 5.1 Example of neighborway to be created on Royal Drive, west of I-75



Figure 5.2 Example multi-use path.  
Image courtesy of [bikethebyways.org](http://bikethebyways.org)

### Multi-Use Path

These paths can be used by pedestrians, cyclists, and skaters. They will be wide enough for multiple users to safely pass each other, and will be either asphalt or concrete. They may be parallel to existing roadways and take advantage of existing right-of-way, but will be separated from those roadways. They will have gentle slopes and curves, and barriers at intersections to prevent motorized vehicle entry. These are the preferred facility for most cyclists.

### Protected Bike Lane

These are proposed only in locations where cost or other concerns prohibit the construction of multi-use paths. These are lanes which are installed as part of an existing roadway, but are separated enough that users feel safe when riding on them. Since they discourage pedestrian use, these are only proposed in locations where large pedestrian use is not anticipated. They will be painted green, and dividers installed to provide both a visual and physical buffer between cyclists and cars.



Figure 5.3 Example protected bike lane. Image courtesy of San Francisco Bike Coalition

# A

## McClain Lane Improvements

**Project Idea:** To allow bicycle and pedestrian access to the Somerset Community College Campus, the Laurel County Public Library, & the London Wellness Park

### Route/Project Description:

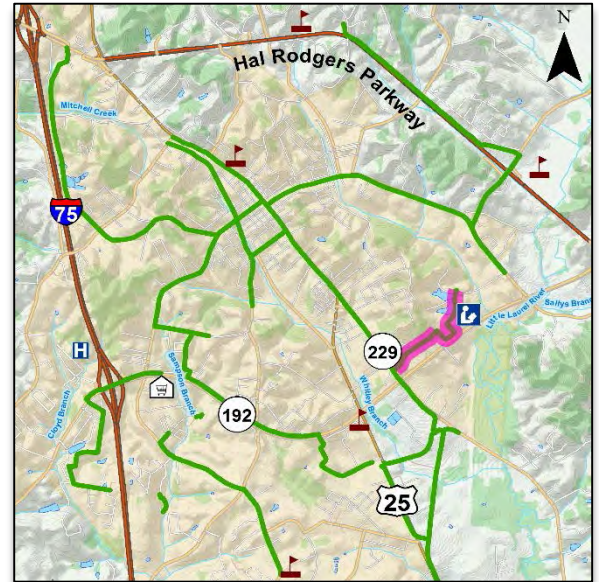
The project will have three parts:

- 1.) Installing signage to designate McClain Lane as a neighborway
- 2.) Installing a bike/pedestrian only entrance at the end of McClain Lane
- 3.) Constructing 0.45 miles of multi-use path from the bike/pedestrian only entrance to the London Wellness Park, via the Laurel County Public Library

### Construction Cost Estimate:

The construction costs for this project are estimated to be between \$66,000 - \$91,000.

<b>Neighborway Signage</b>	\$1,000 - \$3,000
<b>Entrance Construction</b>	\$5,000 - \$8,000
<b>Multi-Use Path</b>	\$60,000 - \$80,000



### Length (types of length):

- 0.45 miles of signed bike boulevard
- 0.45 miles of multi-use path

Most of the construction cost of the project will be the 0.45 miles of multi-use path, from the new bike/pedestrian only entrance to the Wellness Park. The entrance will be a small part of the cost of the project, because not much work will be required to remove the chain link fence and continue the paving onto the existing roadway.

The least expensive part of the project will be installing signage to direct bike / pedestrian traffic onto the bike boulevard and signage along the neighborway to alert drivers and to direct bike/pedestrian traffic.



Artist's rendering of multi-use path between Library and Wellness Park

### Benefits and Potential Challenges:

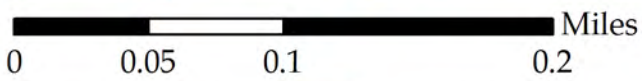
This project will allow access to and between multiple community resources and will be connected to the already planned multi-use path along KY 229. This will create a connection to the South Laurel High School and to the downtown area with these community resources.

The challenges this project faces are not anticipated to be severe, primary among them construction costs and maintenance. Maintenance of the path could be handled either in cooperation with the community resources connected, or as part of the larger city network, but will need to be specifically addressed before construction.

Since the entrance will only be open to bike/pedestrian traffic, no disturbance to the residential neighborhood along McClain Lane is anticipated.

# A

Connecting the Wellness Park with the Library, the Community College, and the rest of London.



- Local Roads
- Interstates
- KY Highways
- US Highways
- Ponds/Lakes
- Streams

- Existing Sidewalk
- Neighborway
- Multi-use Path
- Directional Signpost



# B Multi-Use Path To Downtown

**Project Idea:** To expand KYTC project 11-0147.00, by extending the already planned multi-use path north and south, to increase connections to community resources.

### Route/Project Description:

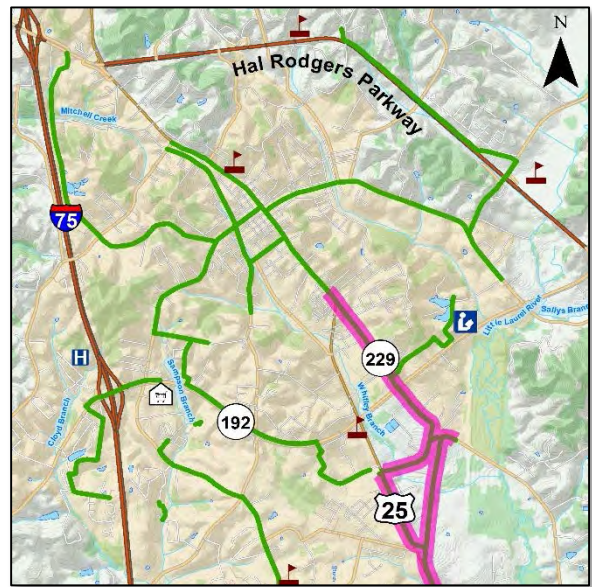
KYTC Project #11-0147.00 already includes plans for a shared use path from the South Laurel High School along Commerce Drive to north of KY 192, stopping opposite of McClain Lane and 5' sidewalks along the rest of the project.

With the addition of 3' of additional right-of-way purchasing, this planned sidewalk can be converted into an 8' wide shared use facility, still on the same alignment, and will provide connectivity with the South Laurel High School, Levi Jackson State Park, and into downtown London, near the Farmers' Market pavilion, which is a recreational cycling trailhead.

### Construction Cost Estimate:

The total estimated construction cost for this project is approximately \$138,000 - 200,000.

<b>Additional right-of-way</b>	\$50,000 - 70,000
<b>Multi-Use Path Construction</b>	\$85,000 - 125,000
<b>Directional Signage</b>	\$ 3,000 - 5,000



### Length (types of length):

- 3.7 miles of multi-use path

The construction costs of this project will be less if it can be integrated into the KYTC project 11-0147.00 than if it is built as a standalone project. Since right-of-way will already be purchased, and construction is already planned, there is the potential for a cost sharing partnership between the City of London and the KYTC to cooperate in constructing this project.

### Benefits and Potential Challenges:

This project will provide a pathway along a main travel corridor in London, and since it ties in with Project A, it will allow a downtown connection to the High School, the public library, the wellness park, the community college, and multiple residential neighborhoods. It will also eventually provide a connection from the downtown area to the Levi Jackson State Park.

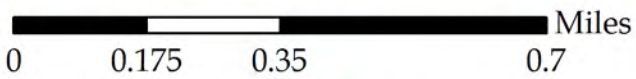
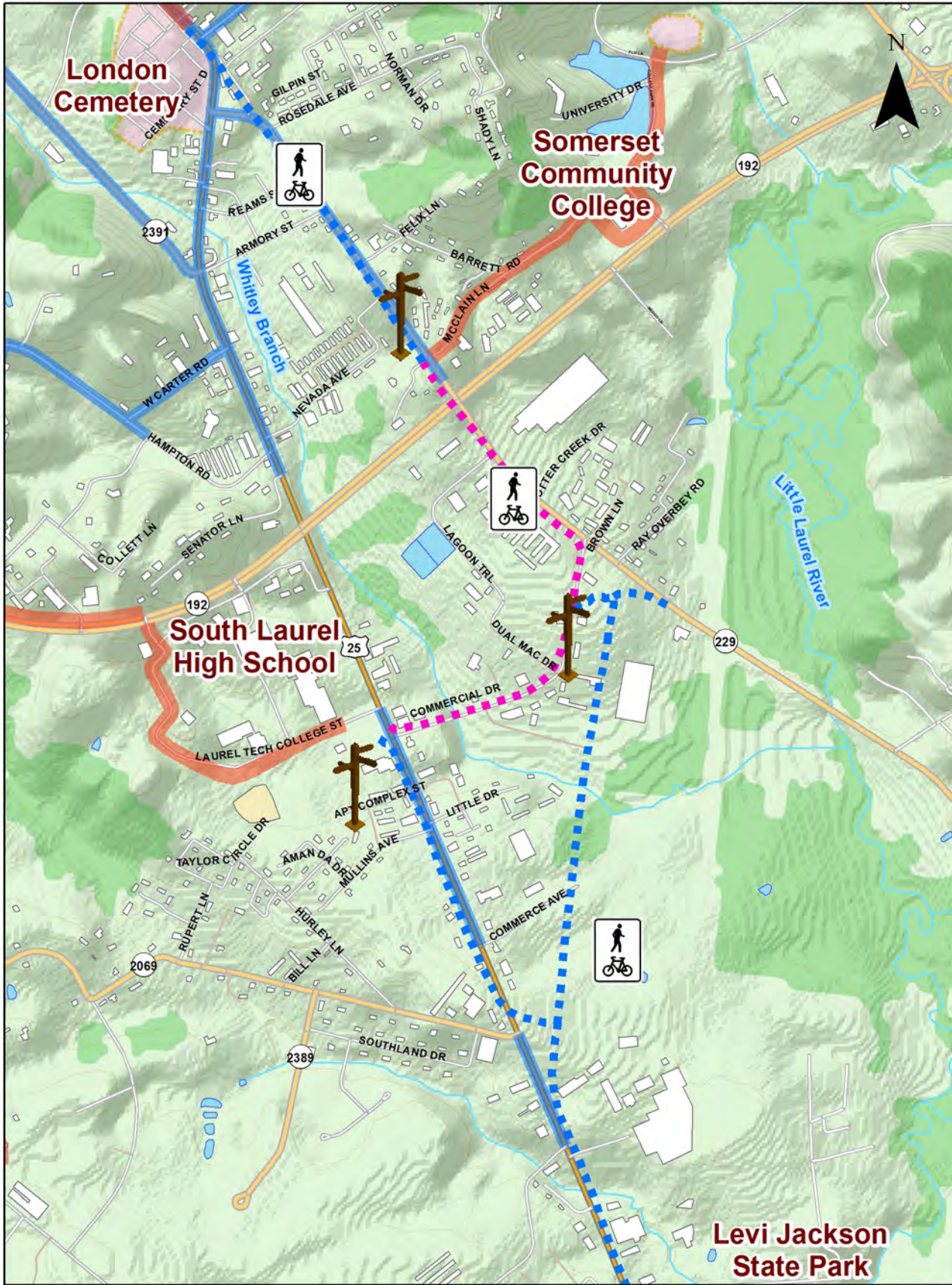
The primary challenge of this project will be to implement it quickly enough for it to be included with the ongoing KYTC project 11-147.00. If it can be incorporated into that project then the additional costs should be minimal, and since right-of-way and construction impacts are already associated with the project, the addition of 3' of right-of-way is not anticipated to be significant.



Artist's rendering of multi-use path next to London Cemetery

# B

Convert the planned sidewalk from KYTC #11-147 to multi-use path.



- Local Roads
- Interstates
- KY Highways
- US Highways
- Ponds/Lakes
- Streams

- Existing Sidewalk
- Other Planned Project
- Converted Sidewalk
- Planned Multi Use Path
- Directional Signpost



## Connectivity Enhancements Along KY 192 Corridor

**Project Idea:** To provide a connection between the South Laurel High School, the shopping centers near Exit 38 from I-75, and residential areas north of those shopping centers.

### Route/Project Description:

This project will have three sections:

- 1.) Along Laurel Tech College Street to KY 192
- 2.) Along KY 192 to Dons Drive
- 3.) Along Dons Drive to Meyers Baker Road.

The first section will have a signed bike route along Laurel Tech College Street. Some bike lane striping could be installed when the road turns into State Champ Road, due to the high levels of traffic.

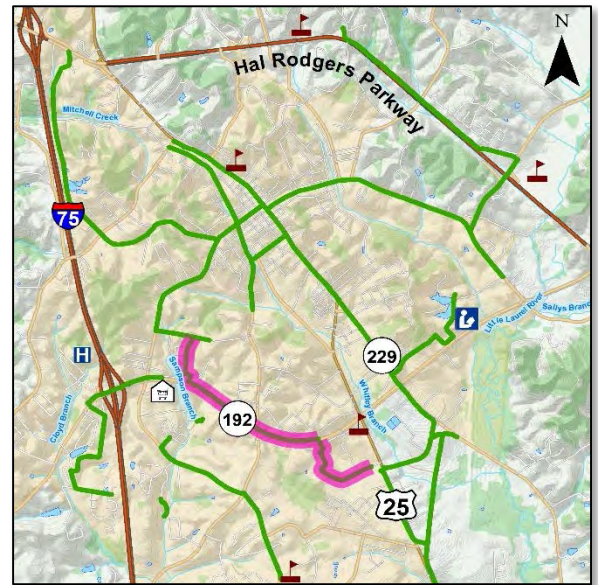
The second section will begin with a crossing at the already signalized intersection of Laurel Tech College Street and KY 192. An 8' asphalt multi-use pathway will be constructed north of KY 192, on the existing right-of-way, crossing KY 363, and continuing in the depressed buffer between Shopping Center Road and KY 192, until the entrance to Walmart.

The third section will extend along Don's Drive until it intersects with Meyers Baker Road. Sharrows will be striped and bike awareness signs installed along Dons Drive.

### Construction Cost Estimate:

The total estimated construction cost for this project is approximately \$182,000 - 259,000.

The cost of this project will be primarily the cost of constructing the multi-use path and purchasing small pieces of right-of-way to fill in any gaps in coverage. Installing signage and restriping roadways could be done in a piecemeal manner to capitalize on ongoing regular maintenance, and coordination with KYTC District 11 is recommended to take advantage of any planned or proposed projects on KY 192.



### Length (types of length):

- 0.85 miles of bike lane/sharrows
- 1.05 miles of multi-use path

<b>Additional Right-of-way</b>	\$ 20,000 - 40,000
<b>Multi-Use Path</b>	\$ 150,000 - 200,000
<b>Directional Signage</b>	\$ 10,000 - 15,000
<b>Road Striping</b>	\$ 2,000 - 4,000



Example of cyclist use on project corridor

**Benefits and Potential Challenges:**

Field investigations and interviews have revealed that this route is already in use, with pedestrians and cyclists on the shoulder of KY 192. This project will provide a better, safer facility for that existing traffic, and connect to other projects to enable increased intra-city transportation. It will provide connection from residential areas, schools, and community resources to a highly traveled shopping area.

Several challenges will need to be addressed to implement this project:

- Funding sources will need to be located, since there are currently no KYTC projects to coordinate construction with.
- Coordination between the school and the city regarding striping Laurel Tech College street, to ensure there are no conflicts between cyclists/pedestrians and school busses.
- Coordination with the automobile dealership across KY 192 from the high school.
- Constructing the multi-use pathway to avoid impacting drainage in the commercial area.

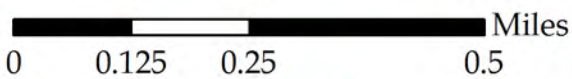
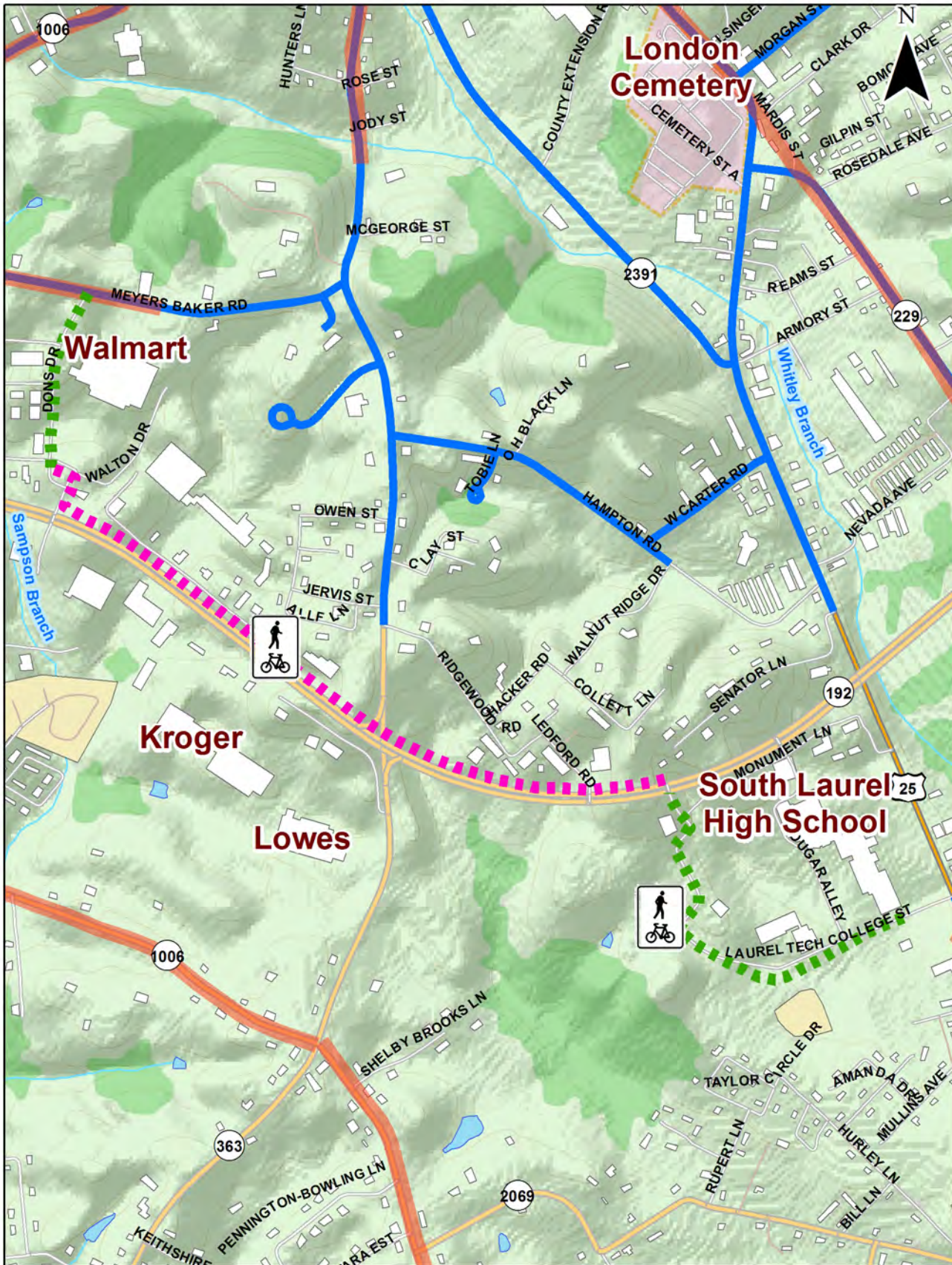


*Artist's rendering of sharrow striping on Dons Drive. This photograph was taken facing south, with the Walmart out of the image to the left.*





Install a multi-use path on the north side of KY 192.



- Local Roads
- Interstates
- KY Highways
- US Highways
- Ponds/Lakes
- Streams

- Multi-use Path
- Bike Lane / Sharrows
- Other Planned Project
- Existing Sidewalk

# D

## Connectivity Enhancements South of Shopping Centers

**Project Idea:** To close gaps in existing facilities and make it easy to walk/bike in the residential neighborhoods south of the shopping centers.

### Route/Project Description:

The project will have four parts:

1. Constructing 0.09 miles of sidewalk along Reams Street
2. Constructing 0.12 miles of sidewalk along Old Whitley road, from Reams Street to Hicks Lane
3. Planning for future installation of bike lanes along Old Whitley Road
4. Consideration/planning for a pedestrian/cyclist only connection between Betty Lane and Chateau Lane

### Construction Cost Estimate:

The total estimated cost for these projects is approximately \$67,500 - \$103,000.

<b>Sidewalks</b>	\$16,000 - 20,000
<b>Signage</b>	\$ 1,500 - 3,000
<b>Bike/Ped Connection</b>	\$30,000 - 40,000
<b>Right of Way</b>	\$20,000 - 40,000

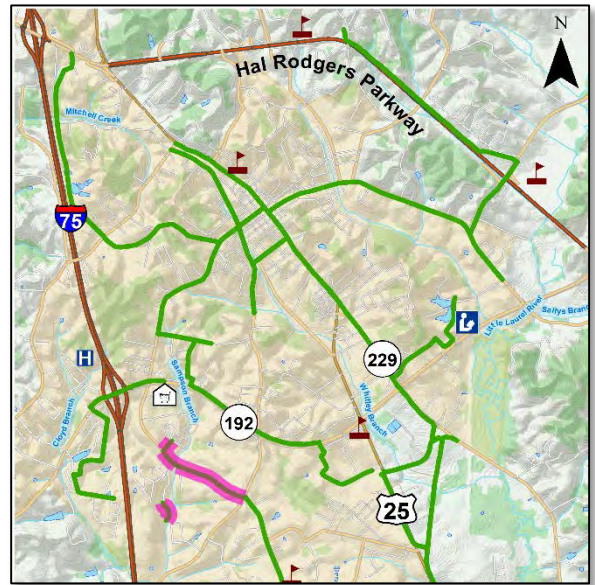
The costs associated with this project are mostly from construction and right-of-way costs, primarily associated with the pedestrian/cyclist connection at Betty Lane.

### Benefits and Potential Challenges:

The four parts of this project represent multiple levels of engagement, expenditure, and return on investment. The 0.21 total miles of sidewalks to be installed can be accomplished at a relatively low cost, and will immediately provide an increased quality of life for the people living in those two neighborhoods, as field investigations revealed high levels of current use. Informal interviews with residents also indicated strong desire to ‘close the gap’ between Hicks Lane and Reams Street to allow non-motorized travel to the shopping centers.

The installation of bike lanes will provide connectivity from those neighborhoods to the Sublimity Elementary school area, and could also be accomplished at a low cost, because of the existing 4’ paved shoulders and 2’ gravel shoulders. Installing the bike/ped connection between Betty and Chateau Lanes would also connect another neighborhood to the shopping centers.

The challenges of this project are initially minimal - no significant challenges are anticipated for the installation of sidewalks or future installation of bike lanes. The potential construction of the pedestrian/bicycle connector between Betty and Chateau lanes, could also require lighting/bollards and close coordination with local residents.



### Length (types of length):

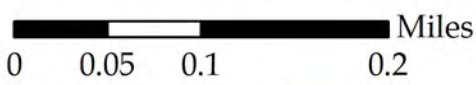
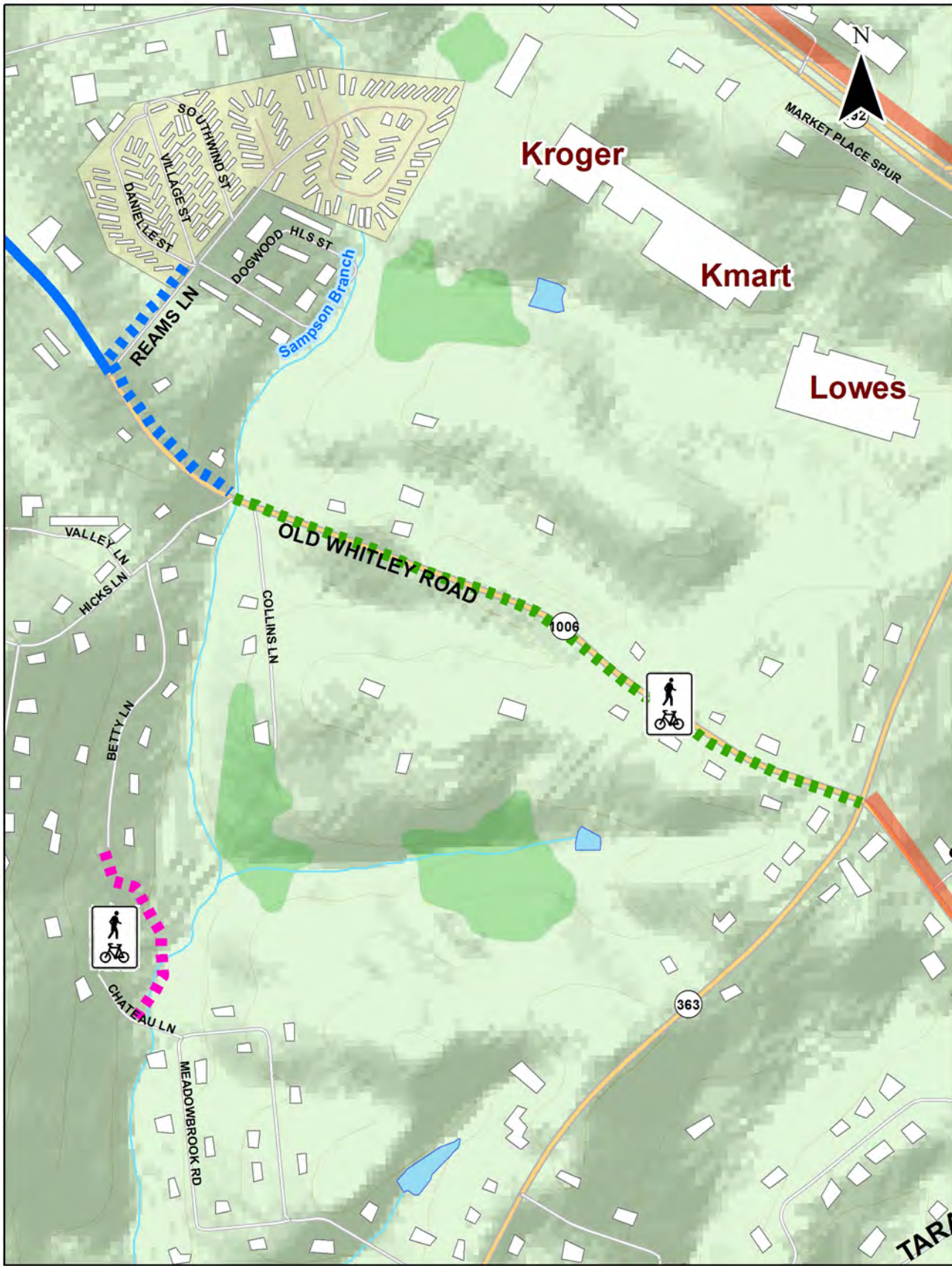
- 0.21 miles of sidewalk
- 1.16 miles of bike lanes
- <750 feet of bike/ped connection



*Pedestrian use on Reams Street*

# D

Multiple projects to improve connectivity south of the Shopping Centers.



- Local Roads
- Interstates
- KY Highways
- US Highways
- Ponds/Lakes
- Streams

- Multi-use Path
- Proposed Sidewalk
- Bike Lane / Sharrows
- Other Planned Project
- Existing Sidewalk



# E

## Provide Access to Hunting Green, Royal Drive, St. Joseph’s Hospital & Soul’s Harbor

**Project Idea:** *To provide access over I-75 to multiple residential neighborhoods and community resources southwest of I-75.*

### Route/Project Description:

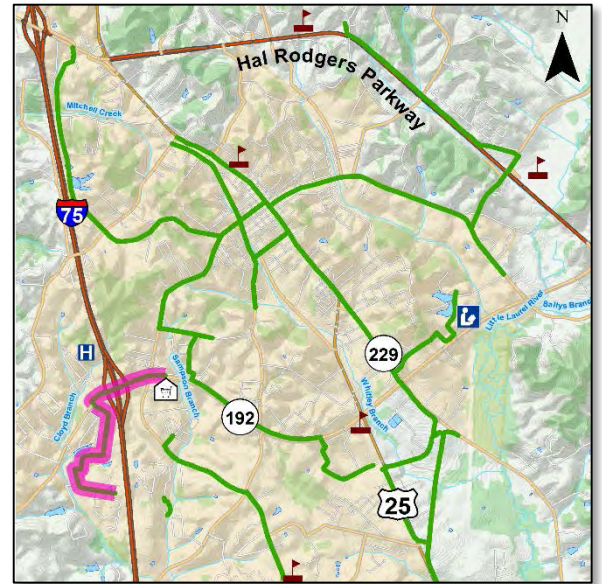
To connect four neighborhoods and several community resources to the existing/proposed facilities east of the interstate, approximately 0.32 miles of multi-use path will be installed to connect to Wendell Way.

Over I-75, the existing travel lanes and shoulders will be slightly reduced, to provide sufficient width to install a pedestrian barrier and fence on the northern side of the bridge, which will then connect to approximately 0.15 miles of multi-use path to Esquire Road. This will allow access to St. Joseph Lane and access to St. Joseph’s Hospital, and a pedestrian crossing will be installed over KY 192.

Neighborway signage will be installed along Floyd Street, to Royal Drive, and onto Boggs Road, to direct cyclists and pedestrians along these residential streets and towards the Soul’s Harbor Church.



Royal Drive, with neighborway signage



### Length (types of length):

- 0.12 miles of lane restriping
- 0.12 miles of barrier installation
- 0.47 miles of multi-use pathway
- 1.04 miles of neighborway

### Cost Estimate:

The total estimated construction cost for this project is approximately \$130,000 - 195,000.

**Shared Use Path Construction**  
\$80,000 - 120,000

**Signage, Barriers**  
\$40,000 - 60,000

**Pedestrian Crosswalks, Signals**  
\$10,000 - 15,000

The cost of this project will be primarily associated with construction because all of the proposed facilities will be on existing right-of-way.

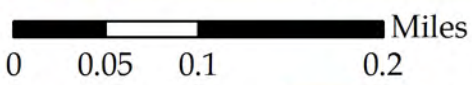
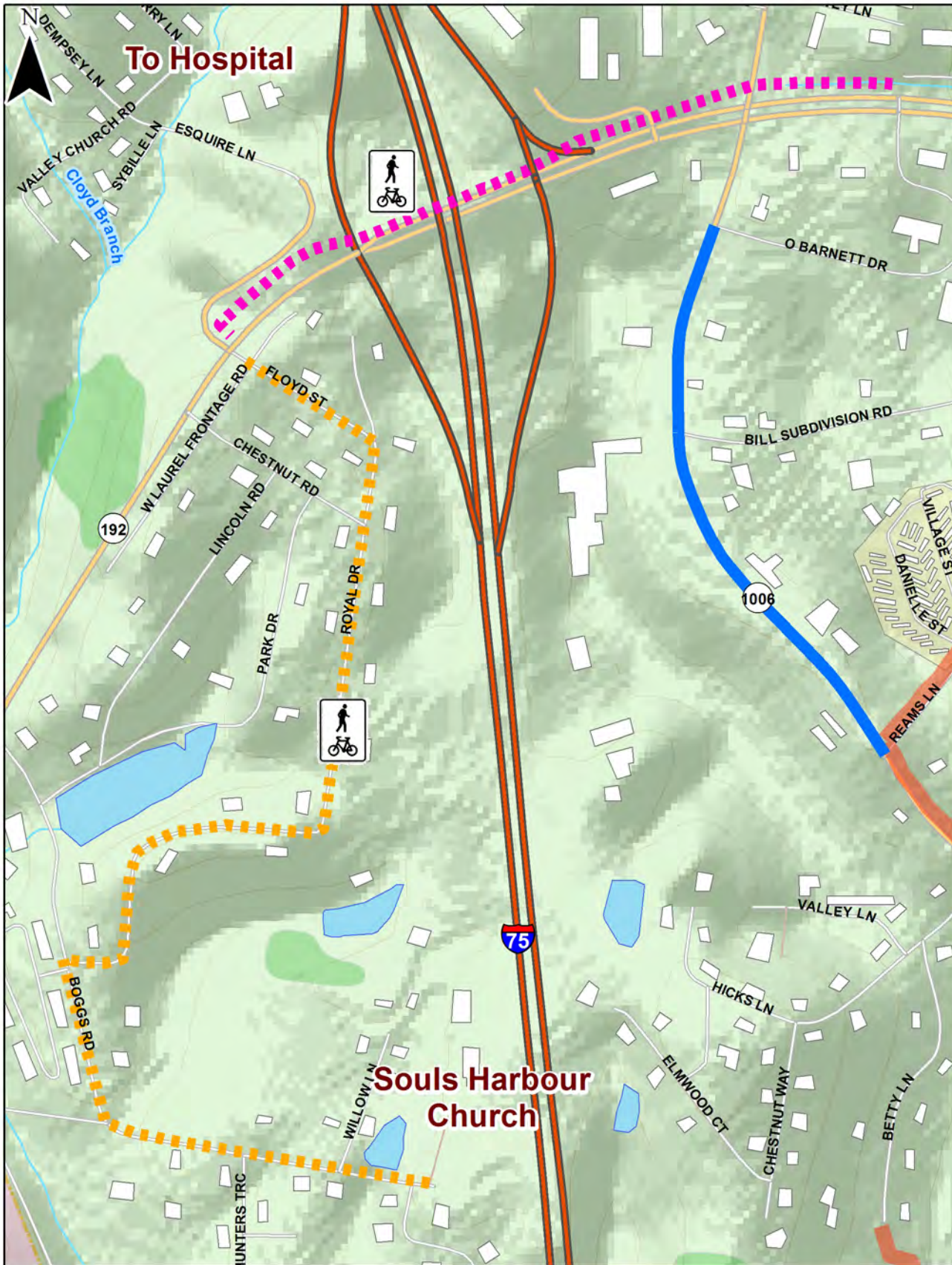
### Benefits and Potential Challenges

There are several neighborhoods and community resources southwest of I-75 which cannot access London without an automobile, because it is difficult to safely cross I-75 in Laurel County. This project will provide routes from those locations and a place to cross safely.

There are a number of challenges with this project - there is less demonstrated active use of this route than for other projects (most likely because pedestrians are obviously reluctant to use a six lane facility over an interstate), the added federal entanglements involved in an interstate project, and the numerous pedestrian signals required.



Provide access across I-75 for pedestrians and cyclists.



- Local Roads
- Ponds/Lakes
- Interstates
- Streams
- KY Highways
- US Highways



**Multi-use Path**



**Neighborway**



**Existing Sidewalk**



**Other Planned Project**

## Provide Bike/ Ped Access along KY 1006 to Sublimity Elementary School

**Project Idea:** *To ensure construction of bike/pedestrian facilities to connect multiple community resources and neighborhoods*

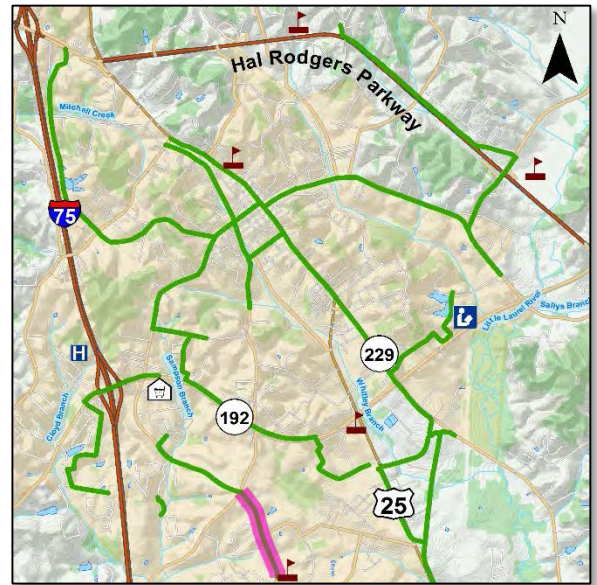
### Route/Project Description:

This project will create a connection between Sublimity Elementary School, Corinth Baptist Church, and approximately 90-100 homes along Redbird Ln, Tara Estates, and Pennington Bowling Lane by installing approximately 0.65 miles of 8' asphalt multi-use trail along the north side of KY 1006.

This alignment was chosen for its limited right-of-way impacts and proximity to Sublimity Elementary School. Since there are no shoulders currently on KY 1006, expansion of existing shoulders or restriping for bike lanes is not possible. Signed and striped crossings will be installed at the entrances to neighborhoods and at Corinth Baptist Church.



*Artist's Rendering of KY 1006 with multi-use path*



### Length (types of length):

- 0.65 miles of multi-use pathway

### Construction Cost Estimate:

The total estimated construction cost for this project is approximately \$128,000 - \$200,000.

#### Multi-use Path Construction

\$85,000 - 115,000

#### Directional Signage

\$ 3,000 - 5,000

#### Pedestrian Crosswalks, Signals

\$15,000 - 30,000

#### Right of Way

\$25,000 - 50,000

Since this project is construction on new alignment, the cost of this project is greater than other projects, because of the extra right-of-way requirements.

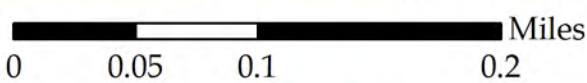
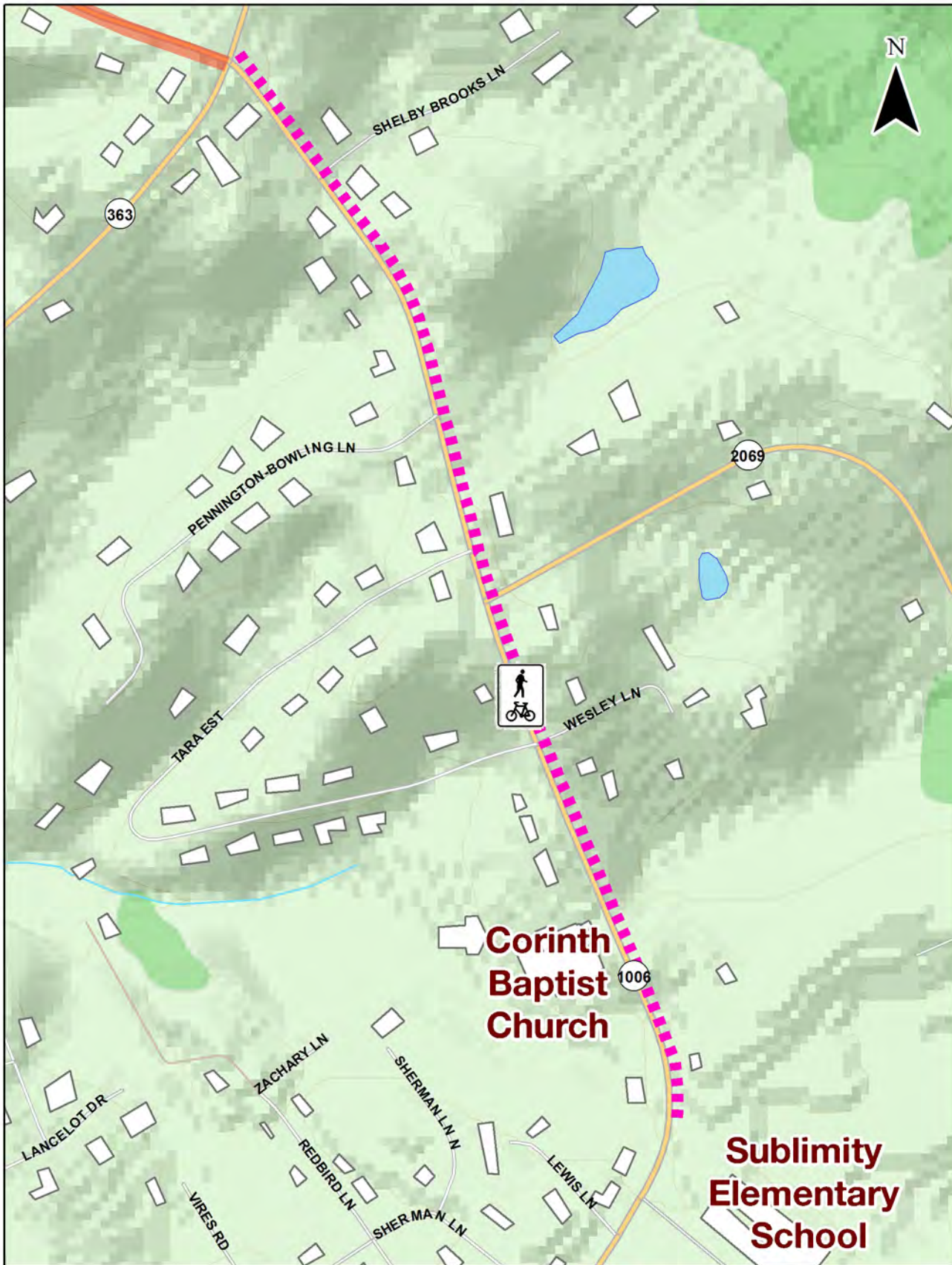
### Benefits and Potential Challenges

This project will connect multiple residential neighborhoods with the commercial area south of KY 192 at Exit 38, as well as with Sublimity Elementary School, Corinth Baptist Church, and much of the rest of London and Laurel County via the other projects in this document.

The primary challenge of this project is the amount of right-of-way acquisition required. For that reason, the project would most efficiently be built in conjunction with a KYTC or other roadway project. However, a potential partial solution could be the designation and signage of a neighborway which connects to Sublimity Elementary school via Sublimity School Road, and Middleground Way. This will allow some connectivity with neighborhoods east of Sublimity Elementary school, but will not carry that connection on to the commercial area or to the Corinth Baptist Church.

# F

Provide access to Sublimity Elementary and multiple neighborhoods.



- Local Roads
- Interstates
- KY Highways
- US Highways
- Ponds/Lakes
- Streams

- Multi-use Path
- Bike Lane / Sharrows
- Existing Sidewalk
- Other Planned Project



## Connect North and South London via Heritage Hills

**Project Idea:** To ensure construction of bike/pedestrian facilities for a connection between North and South London

### Route/Project Description:

This project will include the construction of 1.4 miles of multi-use path along the proposed frontage road to be constructed as part of the KYTC project #11-8514.00/11-139.00. This path will be 8' wide, made of asphalt, and will be on the eastern side of the new roadway, opposite from I-75. It will allow access to the northwestern corner of London, and connect several residential neighborhoods to Heritage Hills and then to Downtown London through existing sidewalks.

This project will also connect to Project H, which will in turn allow access from downtown London, and through the London Greenways to many other community resources.

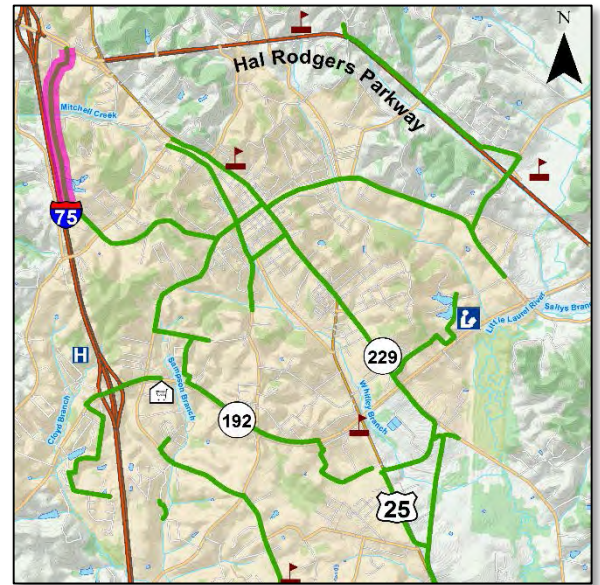


London Tourism Facility - Heritage Hills

### Benefits and Potential Challenges

The benefits of this project are the ability to create a facility through a relatively undeveloped area, and to connect several residential neighborhoods and a tourism facility without requiring travel on a main automobile corridor. This project will also provide a connection to multiple community resources, shopping areas, schools, churches, and other residential neighborhoods. It will tie into both existing and proposed facilities, and will provide immediate utility, as well as continued use as the surrounding network develops.

The challenges of this project could be the requirement to provide an amount of matching funds or make the commitment to maintain the completed facility. Since the project will be coordinated with the KYTC roadway project, right-of-way for this project is anticipated to be minimal in the larger context of the project.



### Length (types of length):

- 1.4 miles of multi-use pathway

### Construction Cost Estimate:

The total estimated construction cost for this project is approximately \$184,000 - \$257,500.

#### Multi-Use Path Construction

\$ 180,000 - 250,000

#### Directional Signage

\$ 3,000 - 5,000 Bicycle

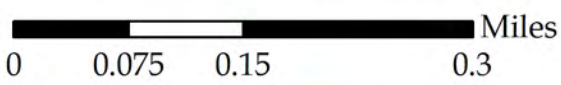
#### Storage, Informational Maps

\$ 1,000 - 2,5000

Since this project will involve close coordination with the KYTC, it is anticipated that costs can be minimized because of the collaborative possibilities. There is also the possibility of collaboration with the Heritage Hills facility as a trailhead/information station.



Include multi-use path in KYTC project # 11-139



- Local Roads
- Interstates
- KY Highways
- US Highways
- Ponds/Lakes
- Streams



**Multi-use Path**



**Bike Lane / Sharrows**



**Existing Sidewalk**



**Other Planned Project**



## Close the Gaps in Downtown London

**Project Idea:** *To locate, identify, and close small scale gaps in infrastructure coverage along the main pedestrian routes in London.*

### Route/Project Description:

This project will concentrate on minor repairs in the central downtown area which can have a major impact. Issues which will be resolved as part of this project are documented in the GIS database prepared as part of this report and contained on a CD bound into the back of this book.

Typical issues for correction include:

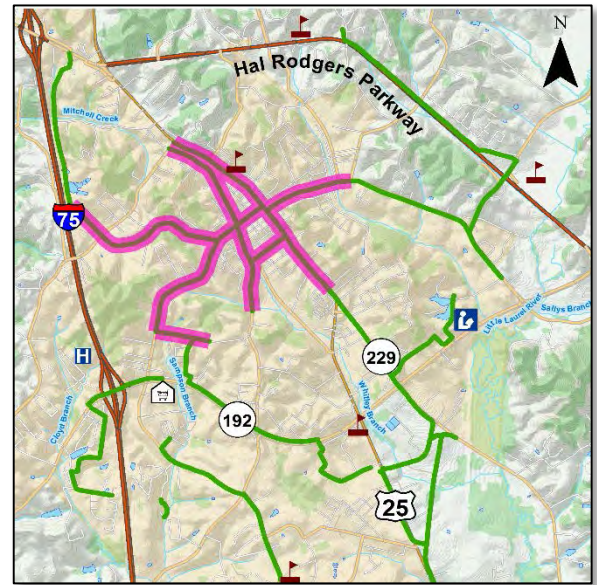
- Ramps or curbs which are not ADA compliant
- Sidewalks covered by debris/gravel/soil
- Cracked/crumbling/uneven sidewalks
- Short stretches without sidewalks
- Faded/deteriorated signage

These repairs will be implemented as funding and personnel become available, and should require minimal engineering.

### Benefits and Potential Challenges

The benefits of this project are the improvements to quality of pedestrian facilities in the downtown London area, especially for elderly or physically challenged residents or visitors. Insurmountable obstacles can appear to be minor condition or design issues, and correcting those issues will ensure that Downtown London is welcoming for all users.

The challenge of this project is in the requirement for comprehensiveness, since any gap in that coverage can render travel on that route impossible. Because maintenance programs are ongoing, concerns about cost or personnel availability are anticipated to be minimal.



**Length (types of length):**  
N/A

### Construction Cost Estimate:

N/A

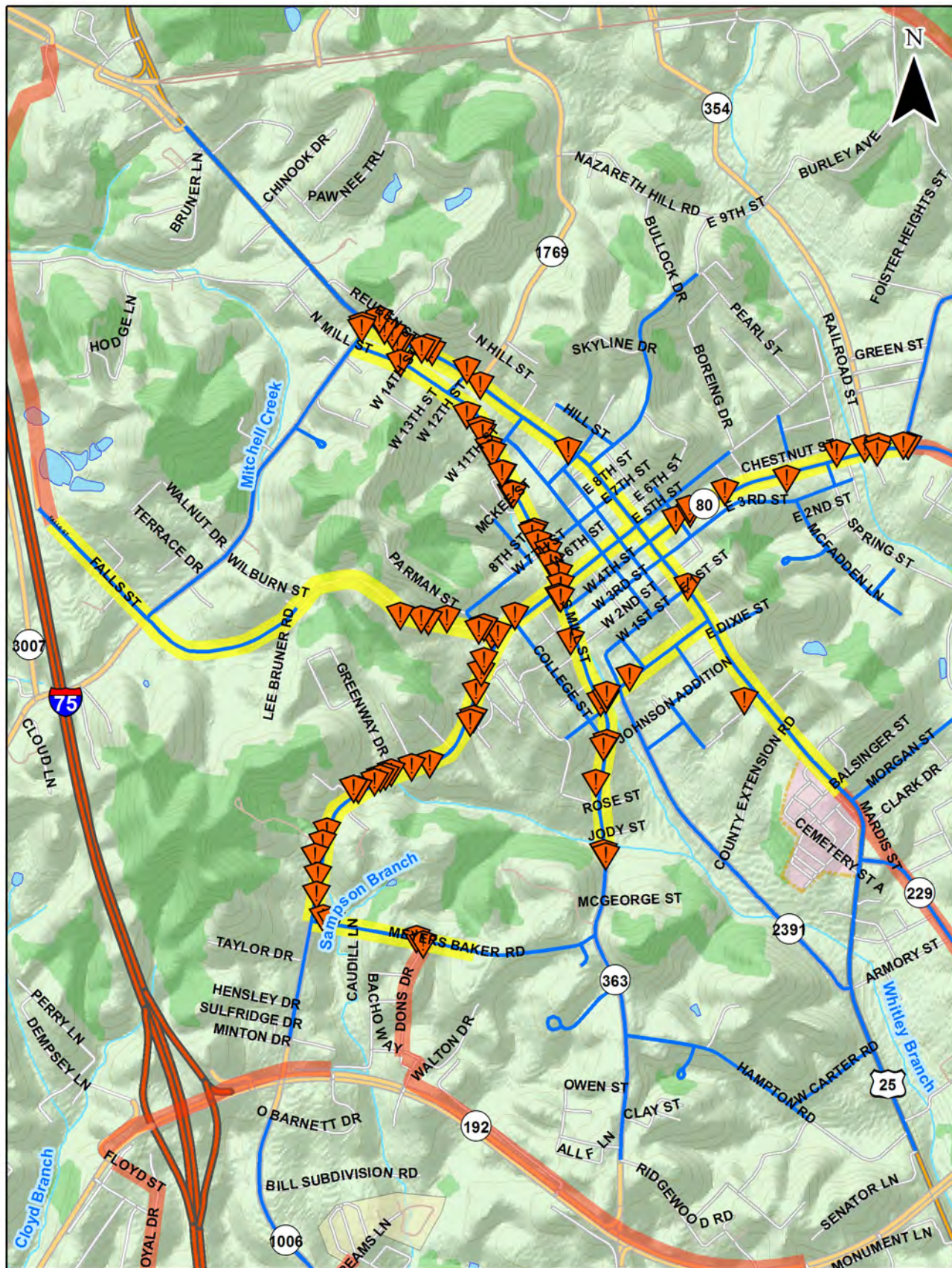
The costs associated with this project vary with the type of work required, but are anticipated to be minor, due to their small size, and the fact that many of the identified issues can be repaired with little labor and materials.



Example of Coverage Gap, near London Cemetery



Identify and repair/correct small gaps in infrastructure coverage in Downtown London.



0 0.2 0.4 0.8 Miles

- Local Roads
- Interstates
- KY Highways
- US Highways

- Ponds/Lakes
- Streams



Identified Gap/Issue



Inventory Boundaries



Existing Sidewalk



Other Planned Project



## Connect North Laurel High School with North Laurel Middle School

**Project Idea:** To include a multi-use path in planning for eventual work on KY 9002, to connect the schools along the route.

### Route/Project Description:

This project will include the construction of a 10' asphalt multi-use path in the planning for the KYTC project #11-979.00, which will expand the Hal Rodgers (KY 9002) Parkway from two lanes to four. This project will begin in front of the North Laurel High School and stretch to the North Laurel Middle School.

This project will be developed in coordination with the KYTC, to maximize the potential efficiencies of combining the planning, design, right-of-way, and construction processes

### Construction Cost Estimate:

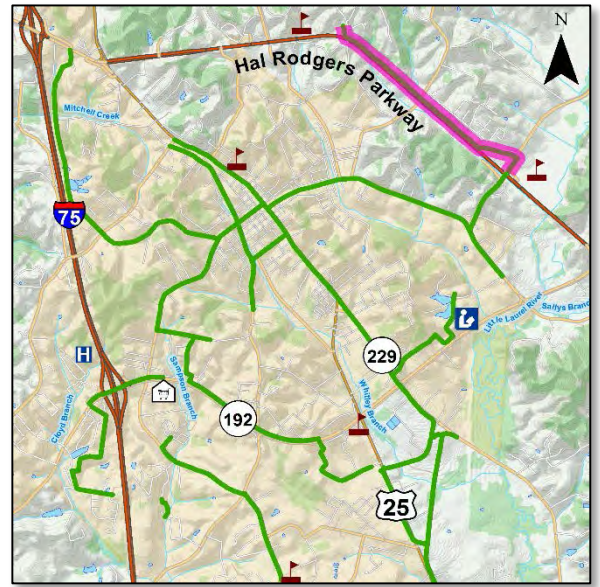
The total construction cost for this project is estimated to be between \$103,000 -150,000.

<b>Shared Use Path Construction</b>	\$85,000 - 115,000
<b>Directional Signage</b>	\$ 3,000 - 5,000
<b>Pedestrian Crosswalks, Signals</b>	\$15,000 - 30,000

### Benefits and Potential Challenges

The benefit of this project is the connection of the North Laurel High and Middle Schools, as well as the possibility of coordination with the KYTC to minimize expenses. This will allow those schools a connection to the public library, the community college, the wellness park, and numerous other community resources.

Challenges with this project are anticipated to be minimal, other than to note that the schedule of this project is entirely dependent upon the KYTC timeline. Other than that, since the right-of-way and construction associated with this project are anticipated to be substantially smaller than those of the larger KYTC project, no other challenges are anticipated at this time.



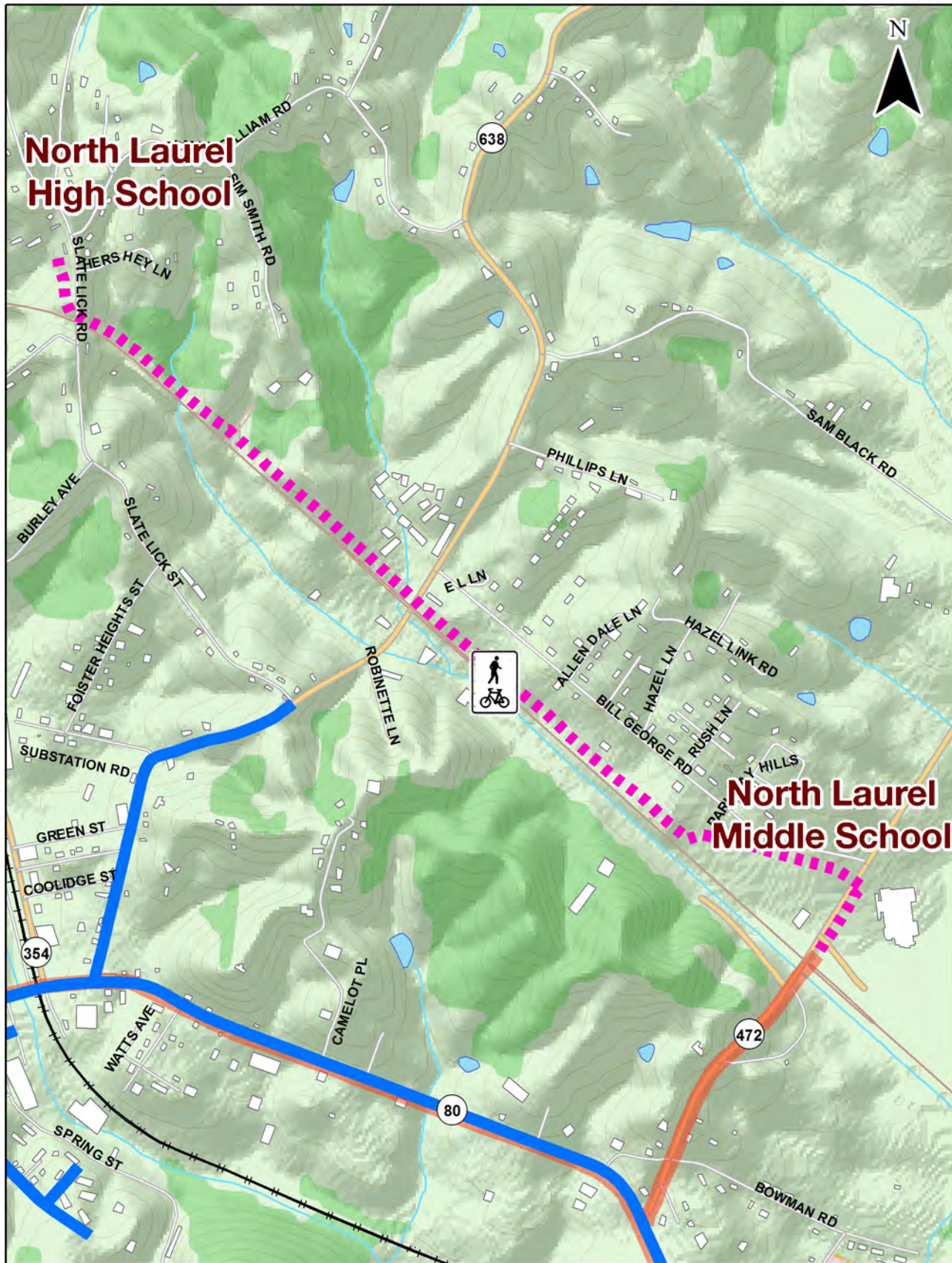
### Length (types of length):

- 1.6 Miles Multi-Use Path

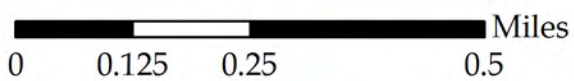
This project is anticipated to be cost effective, because the project can be developed in coordination with the KYTC with the potential for efficient cost sharing possibilities.



Artist's rendering of possible pathway placement



Include multi-use path in KYTC project # 11-979.00



- Local Roads
- Interstates
- KY Highways
- US Highways
- Ponds/Lakes
- Streams

- Multi-use Path
- Bike Lane / Sharrows
- Existing Sidewalk
- Other Planned Project

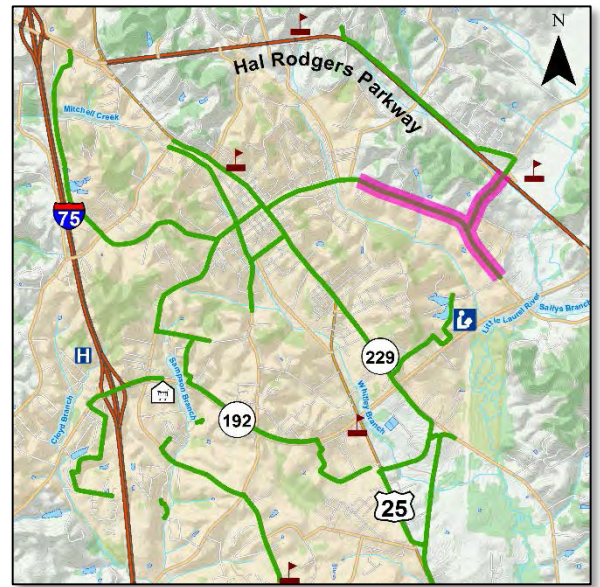
## Connect Downtown London with North Laurel Middle School and the School of Innovation

J

**Project Idea:** To make minor modifications to existing infrastructure to extend bike/pedestrian coverage eastward.

### Route/Project Description:

This project will provide a connection from the North Laurel Middle School to KY 80, where turning north will allow access to Downtown London, and turning south will allow access to multiple community resources. A bike lane will be paved, painted green, striped, and dividers installed along the shoulder of KY 472, from North Laurel Middle School to KY 80. Then, the existing 4' sidewalk along the western side of KY 80 will be widened another 4' on existing right-of-way to TLC Lane.



### Length (types of length):

- 0.45 Miles Bike Lane
- 1.2 Miles Widened Sidewalk

### Construction Cost Estimate:

The total estimated construction cost for this project is approximately \$83,000-140,000

<b>Bike Lane Paving/Striping</b>	\$20,000 - 40,000
<b>Directional Signage</b>	\$ 3,000 - 5,000
<b>Sidewalk Widening</b>	\$60,000 - 95,000

The costs of this project per mile are anticipated to be lower than other projects, because the project will not require any new facilities on new alignment or right-of-way.



Artist's rendering of possible pathway placement along KY 80

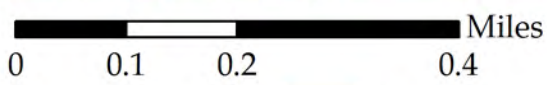
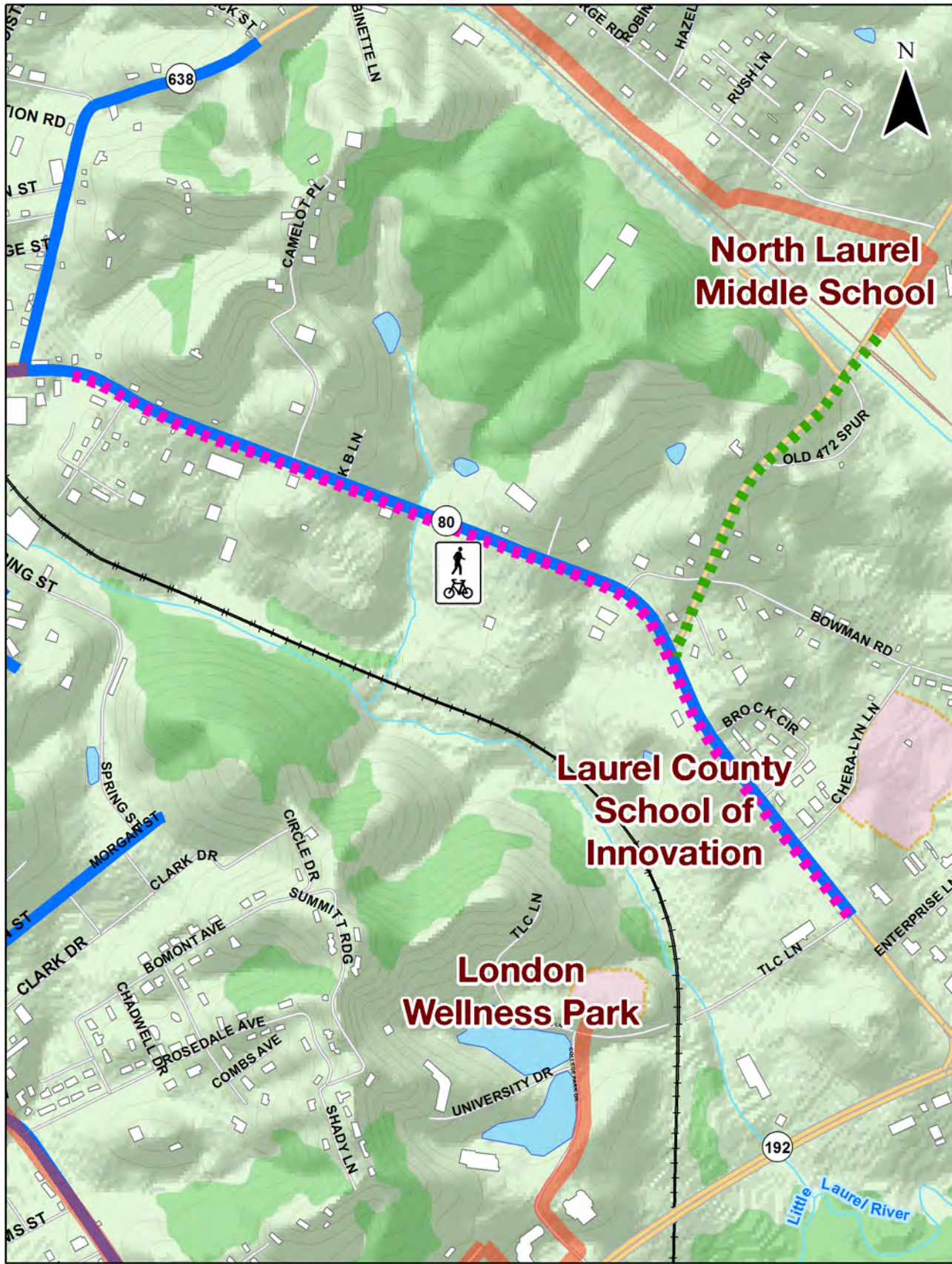
### Benefits and Potential Challenges

The benefits of this project are the connections from the North Laurel Schools to other community resources using cost efficient methods. This project will also provide access for multiple residential neighborhoods to these community resources.

Challenges with this project are primarily associated with the cost of the project, because there are no other projects available to piggyback onto for engineering or material support. Other than that, since this project involves no right-of-way purchasing or utility coordination, this project can be completed when funding becomes available, and likely with in-house labor.



Connect the North Laurel Middle School with the School of Innovation.



- Local Roads
- Interstates
- KY Highways
- US Highways
- Ponds/Lakes
- Streams

- Multi-use Path (Widened Sidewalk)
- Protected Bike Lane
- Existing Sidewalk
- Other Planned Project

**NOTE:** *These two projects are included as potential projects to be considered for future inclusion in an approved plan, based on public interest. However, they are included in this plan for informational purposes and are not included in any cost estimates or schedules presented herein.*

# 1

## Connect to the Wetland Restoration Project

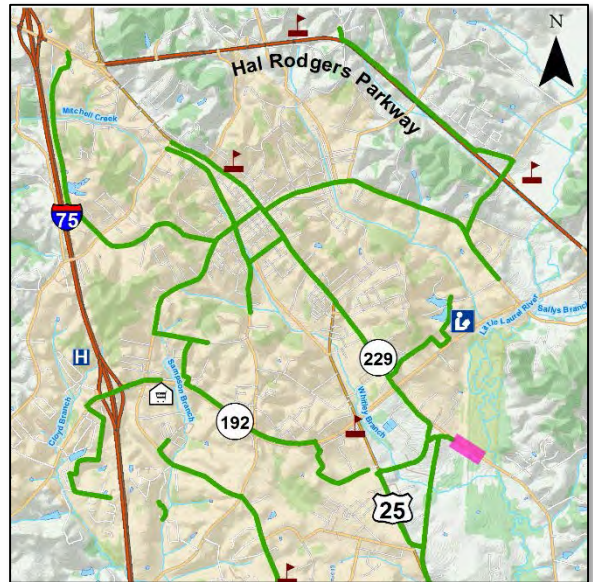
**Project Idea:** *To extend a multiuse path approximately 0.25 miles from the southern end of Project B to connect to the Wetland Restoration Project.*

### Route/Project Description:

This project will construct approximately 0.25 miles of multi-use path from the southern end of Project B, along KY 229, to the Wetland Restoration Project located south of town.

### Benefits and Potential Challenges

The project would allow increased connection to this city resource and would provide possible access for mountain bikers as well as road cyclists. However, because this portion of KY 229 crosses a CSX railroad, there will be challenges in acquiring the additional right-of-way required to construct this project. As well, since this project requires full completion of Project B, it should be considered only when that project is finished.



# 2

## Connect to the London Farmer’s Market

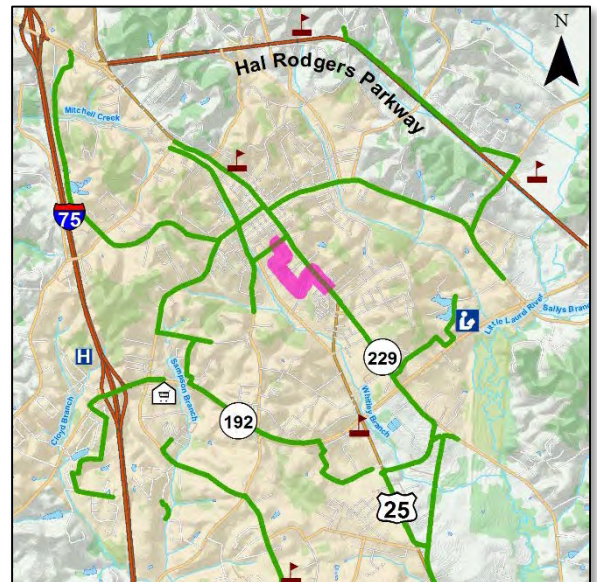
**Project Idea:** *To extend a multiuse path approximately 0.75 miles from the northern end of Project B to the London Farmer’s Market, a common cycling starting point.*

### Route/Project Description:

This project will use newly acquired city property to extend the multi use path constructed by Project B (at the northern end) to carry cycling/pedestrian traffic away from Main Street/US 25 while still allowing a connection with the London Farmer’s Market and the rest of downtown London.

### Benefits and Potential Challenges

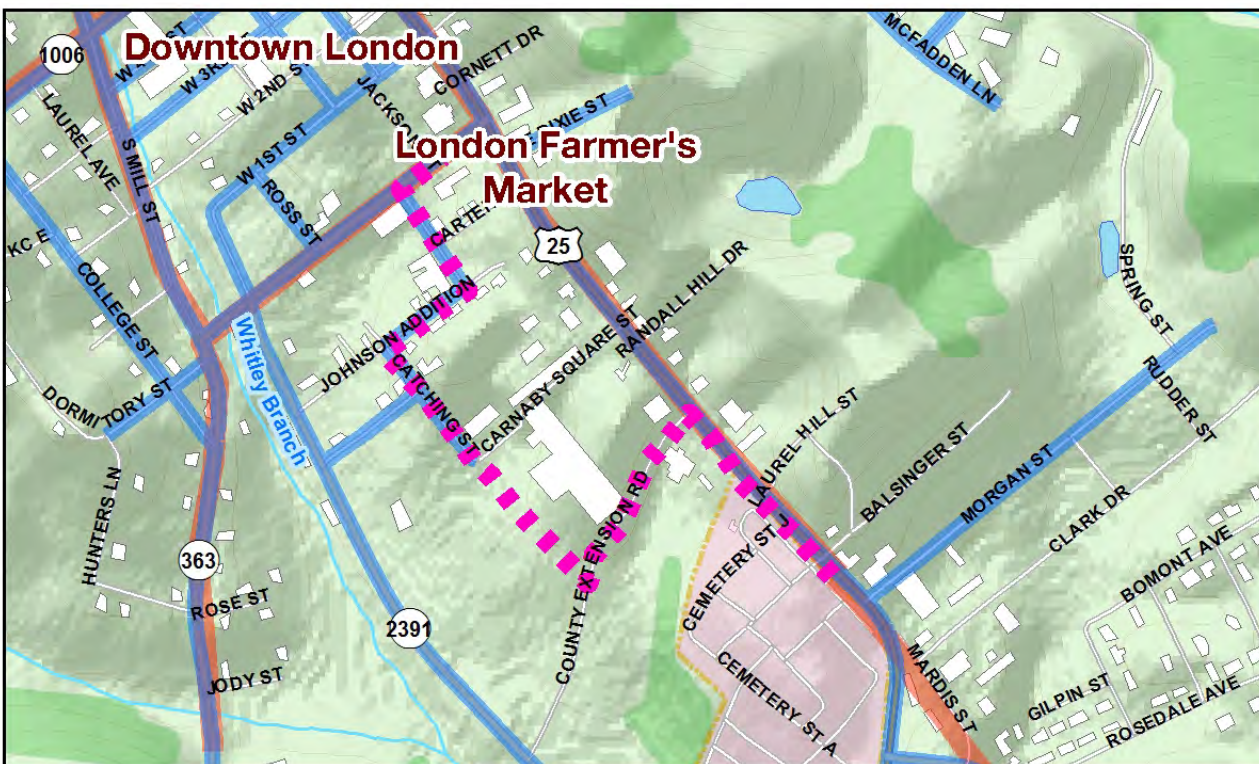
The project would allow increased connection to the most common cycling starting point, and a valuable community resource. However, since there is no possibility of synergy with the KYTC, construction costs could be higher than other projects. Also, since this project requires the completion of Project B, timing could be difficult.





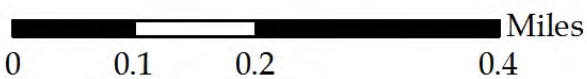
# 1

Connecting the Wellness Park to the Wetland Restoration site on Hwy 229 from the southern end of Project B.



# 2

Connecting the Farmers Market to the northern end of Project B



- Local Roads
- Interstates
- KY Highways
- US Highways
- Ponds/Lakes
- Streams

Other Planned Project

Existing Sidewalk

Proposed Multi-use Path

## Section 6: Public Input

A community plan requires community involvement, and so public input has been critical in developing this document. Two public meetings have been held, a survey was developed and distributed, and field investigations have resulted in multiple interviews with residents, landowners, and citizens.

### First Public Meeting

The first meeting was held at the London Farmers' Market, on May 5<sup>th</sup>, and was intended to ask the public for input about the proposed areas of study and to begin the survey process. At this meeting, a paper copy of the survey was distributed, and cards with links to the online survey were given out to be passed out to the community.

Law enforcement officers and local government were in attendance, as well as approximately 30+ people over the course of the meeting. Residents could offer suggestions about additional areas of study, locations of community resources, and ideas for projects on several large maps prepared for the meeting.

Responses to the project goals and ideas at this meeting were overwhelmingly positive. Residents strongly supported the preparation of this document, and repeatedly emphasized that 'anything we build will be wonderful!' This sentiment was echoed by the local business owners that turned out, and the law enforcement/safety officers present as well.

There were concerns about right-of-way, and safety mentioned. Some roads were also identified as very dangerous for cyclists and pedestrians, and several residents asked about extending the projects east of downtown London along KY 80. Other residents asked about extending study areas down into the Hicks Lane and Meadowbrook road neighborhoods. These ideas are developed in more detail in Projects J and C, respectively.

### Second Public Meeting

The second meeting was held in conjunction with the London/Laurel Tourism sponsored Thursday Night Live event, on June 18<sup>th</sup>. Members of the community circulated at this street concert and had the chance to view the proposed projects presented in this document and to again provide input on pedestrian and bicycle issues in the City of London and Laurel County. All ages of residents came to view the proposed projects and submit comments.

Most comments were again overwhelmingly positive, though some residents wanted to declare their interest in extending the projects to their neighborhoods.



*Figure 6.1 HMB personnel explaining project ideas to residents at the second public meeting.*

## Public Survey Responses

A survey was developed to identify public opinions on existing conditions and priorities for project types. A blank copy of that survey can be found in Appendix A. Paper copies were distributed at the first public meeting, and collected at the end of the meeting. An electronic version of the survey was promoted online via Facebook, email lists, and in the local newspaper, and business cards printed with a link to the survey were distributed to city officials and local business. 142 unique responses were received to this survey, but since it was distributed through so many channels, there is no way to determine an overall response rate. The raw survey data can be found on the CD bound into the back of this document.

Two types of questions were asked: opinions on existing conditions, and priorities for future projects. The results of the first types of these questions can be seen in Table 6.1.

*Table 6.1 Responses to first ten questions from public opinion survey. Lower percentages are marked in red, higher percentages are marked in green. n=142*

	Disagree Strongly	-	Neutral/ Don't Know	-	Agree Strongly	Weighted Average
	1	2	3	4	5	
I think Laurel County is a safe place to ride a bicycle	19.40%	30.60%	17.91%	24.63%	7.46%	2.7
I think drivers in Laurel County are respectful of cyclists	14.93%	29.10%	26.87%	25.37%	3.73%	2.74
I think drivers in London are respectful of cyclists	12.03%	29.32%	30.08%	25.56%	3.01%	2.78
I think downtown London is a safe place to ride a bicycle	9.77%	35.34%	20.30%	26.32%	8.27%	2.88
I think drivers in London are respectful of walkers/runners	7.52%	7.52%	26.32%	42.86%	15.79%	3.52
I think downtown London is a safe place to walk/run	4.51%	11.28%	15.79%	48.12%	20.30%	3.68
I would cycle more often if I felt safer	7.58%	6.06%	18.94%	19.70%	47.73%	3.94
I would walk more often if I felt safer	2.27%	7.58%	21.97%	30.30%	37.88%	3.94
I would cycle more often if there were more facilities	5.26%	3.01%	19.55%	24.06%	48.12%	4.07
I would walk/run more often if there were more facilities	1.50%	3.01%	16.54%	35.34%	43.61%	4.17

The responses to these questions overall showed a tendency to view walking and running as safer than cycling, and a strong desire for more facilities.

In the first type of question, exactly half of the respondents disagreed or strongly disagreed with the statement “I think Laurel County is a safe place to ride a bicycle,” while only about 30% agreed or agreed strongly. The rest were neutral or undecided. There was a similar response to the statement “I think drivers in Laurel County are respectful of cyclists,” where only 4% strongly agreed. Almost half of the respondents strongly agreed with the statement “I would cycle more often if there were more facilities.” This is consistent with interviews and comments submitted verbally at public meetings.

Pedestrian centric questions were more positive, with regards to safety and consideration. Almost half of respondents agreed with the statement “downtown London is a



safe place to walk/run, and almost 80% agreed that they “would walk/run more often if there were more facilities.”

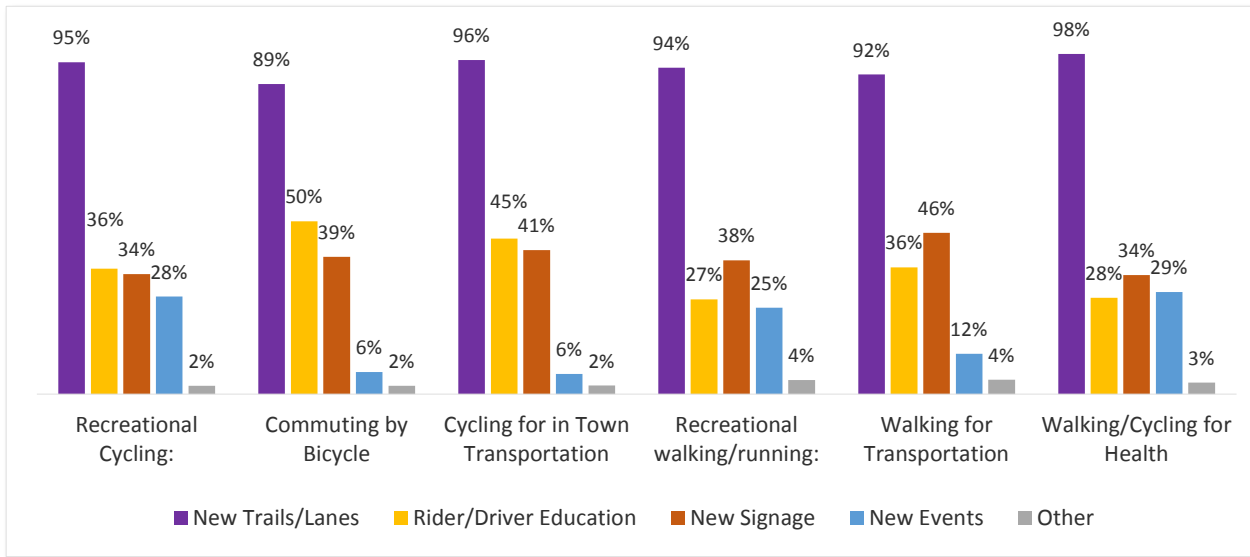


Figure 6.2 Preferred project types by use category, as identified in the public survey.  $n=142$

In the second type of question, respondents were asked to choose their top two preferred type of project for different categories of non-motorized transportation. In every category, there was an overwhelming amount of support for new facilities, usually over 90%. Rider/Driver education was also a popular type of project for many of the cycling categories, while new signage was more popular for walking/running. New events were popular for most recreational categories, and were less so for commuting or other transportation categories.

Some respondents included an ‘other’ response and explained. Of those who did, the most common responses written in concerned additional sidewalks, multi-use paths, or increased connectivity (i.e. new facilities).

The similarities in responses between the two types of questions were striking - residents of the City of London and Laurel County want new, safe facilities. They want to feel safe around cars, have roads that are designed to take their comfort into mind, and that remind drivers that cyclists and pedestrians have equal rights to transportation facilities. In the final open response question, many people were very supportive of the inclusion of bike and pedestrian considerations in transportation planning, and several identified bike lanes as desirable. Respondents also spoke overwhelmingly about the “disjointed,” “nightmar[ish],” and “hit or miss” conditions of sidewalks, crosswalks, and pedestrian facilities.

This input and statistical data was used in the development of the projects presented in Section 5, and in the prioritization shown in Section 7, below.

## Section 7: Implementation

This section is intended to first explain the criteria for prioritization, and then describe the preferred schedule for the implementation of the projects described in this document. When reading this section, it should be understood that the schedule laid out here is a suggestion, based on numerous factors, and can be rearranged, reordered, delayed or accelerated. This schedule is intended to describe an ideal situation, where funding can be obtained without significant delay, and where projects can be developed at a reasonable speed.

### Project Development Criteria

The criteria used here were developed with coordination with experienced engineers, planners, and city/county officials. They are briefly described below to ensure clarity. There is no specific weight given to any one criteria, but generally speaking, cost and utility drive the majority of the prioritization decisions, while feasibility and public opinion drove the project selection process.

#### *Feasibility*

Projects were discussed with experienced project managers and engineers to ensure that all suggested or proposed improvements could be reasonably and feasibly implemented. Any project that was deemed to require an unreasonable amount of work or right-of-way was not carried further in this document, and was tabled for future planning documents. Feasibility of implementation was also discussed with city and county officials, so that projects which were identified as low cost but high utility could be quickly implemented.

#### *Utility*

This criterion was determined based on the number of community resources connected, the amount of predicted use, and demonstrated existing use (where applicable). Projects with higher utility were given a higher rating in the priority listing, and those with a high utility and low cost were near the top of the list.

#### *Public Opinion*

This criterion was primarily used to identify projects to be implemented, and not for prioritization. Since the public identified a strong preference for new, safe facilities, and all of the projects initially proposed in this plan are for new facilities or routes, other prioritization became impossible at that point. However, in the policy suggestions section (page 40), other potential policies for the future are proposed, and public opinion should be used in developing those policies for future implementation.

#### *Cost*

This was one of the two major factors determining implementation priority - efficiency of funding distribution - i.e. bang for the buck. All projects were conceived and planned to take full advantage of existing right-of-way, open lands instead of developed areas, and to stay along existing roadways/facilities and planned highway projects as much as possible.

### **Proposed Short Term Improvements**

Several projects have the potential for integration with active KYTC projects, and it is recommended that those projects be advanced as quickly as possible, to maximize any possible efficiencies. These projects are projects which would connect to Project B, and serve as stem lines feeding off of the central trunk line created with the construction of the multi-use path as part of Project B.

Project A should be advanced as quickly as possible, along with Projects K and LXXX, if coordination with the KYTC cabinet indicates that these projects will allow the implementation of Project B as well.

Project D, since it requires minimal engineering, construction costs, and can be completed with city maintenance personnel, should also be implemented early. It will show responsiveness to public input garnered, and can be used as an example project, along with Project A, to show commitment to multi-modal transportation.

### **Proposed Long Term Improvements**

Several projects are proposed in this plan which are essentially dependent on the KYTC for scheduling and prioritization. Since they have been developed to take advantage of already-planned projects, they would not be efficient if developed alone.

Projects G, C, and I should be developed in close coordination with the KYTC, to ensure that any possible cost savings in combining the projects can be implemented as effectively as possible. Especially with Project G, there has already been discussion of how the KYTC can work with the city to coordinate in cost sharing and project development.

While Project J can be developed as a stand along project, the connection of bike lane along KY 472 could be held until Project I is in progress. In the same way, Project F and E should be held until after the construction of Project D and C, when community desire supports these projects, as they have a higher potential for challenges and impacts.

Tasks identified by Project H should be implemented as funding and personnel become available. The purpose of the now completed Project H was to provide information to the city roadway personnel, and to respond to the many public comments on the survey which noted the conditions of the existing sidewalks. The two numbered projects, Projects 1 & 2, should be included in long term planning, but are not recommended for implementation at this time.

### **Potential Policy Proposals**

Several policy modifications have also been developed. Since this document is not intended to fully analyze the impacts of these policies, they are proposed and left for the implementing agency to debate and adopt as appropriate.

### ***Commitment to Multi-Use Paths***

It is recommended that the City of London and Laurel County adopt an additional commitment to their comprehensive plan, wherein any proposed development or additional roadway construction would look first at the construction and installation of a multi-use path. This does not require the construction of those paths, just their initial consideration, before consideration of sidewalks or no bike/pedestrian facilities.

### ***Investigate Leash Law for Laurel County***

Numerous survey responses and public comments were received that stated unleashed dogs were a significant concern for cyclists outside of the City of London. While the City of London does have a requirement in their city code that dog owners maintain control of their pets, there is no such requirement in Laurel County. It is recommended that such a requirement be investigated for implementation in Laurel County, to maintain parity between the city and the county.

### ***Revise Municipal Development Ordinance re: Sidewalks***

After field investigations were completed, several areas were identified which had sidewalks which were likely constructed 30+ years ago, but had not been replaced recently. Even though these were still in good repair and are in compliance with existing municipal development code, they were very narrow, with sharp turns and steep curbs. These sidewalks would be very difficult for a wheelchair (electric or non) to travel on, and it would be impossible for two wheelchairs to pass each other. It is recommended that the London/Laurel Joint Planning Commission Development Ordinance be revised slightly to require wider sidewalks with appropriately spaced rest stops and accessible curbs, to be fully in compliance with FHWA and ADA guidelines.



Figure 7.1 Example of narrow sidewalks

### ***Begin Rider / Driver Education Programs***

Some of the proposed projects may result in situations which drivers and riders have not encountered before and may not know how to behave. Some drivers are unaware of cyclists rights and roles on roadways, and some cyclists and pedestrians do not know how best to assert those rights. A program which informs everyone of the basic responsibilities and rules of the road, including children, law enforcement officers, drivers, and pedestrians/cyclists could be very beneficial and is recommended. It is recommended that this program be developed in coordination with KYTC's bicycle and pedestrian coordinator, local cycling groups, and local schools.

### **Potential Funding Sources**

Because of the intense focus on only proposed least-cost, most effective solutions, the total estimated construction costs for all of the projects in this document (excluding Project H), is only approximately 1 to 1.5 million dollars. As identified on the FHWA website "Bicycle and Pedestrian Funding Opportunities: US Department of Transportation, federal Transit, and Federal Highway Funds" numerous opportunities exist for potential funding for the proposed projects, either in conjunction with the KYTC or separately.

Perhaps the most feasible sources of funding are the Transportation Alternatives Program (TAP), the Transportation Enhancements activities (TE), the Transportation Investment Generating Economic Recovery discretionary grant program (TIGER) and the Recreation Trails Program. These programs can be applied for by the municipality and have long track records of providing resources to help improve non-motorized transportation. These

programs can be used for multiple project types, including all the proposed projects in this document.

Additional funding opportunities exist when the City of London is able to partner with the KYTC, including Federal Transit Administration capital funds (FTA), Surface Transportation Program (STP) funds, and Congestion Mitigation and Air Quality Improvement program (CMAQ) funding. Close coordination with the KYTC is recommended at the earliest possible stage in every project which could include non-motorized transportation facilities, to ensure that all possible funding options are investigated, and that any possible cost sharing between the City of London, Laurel County, and the KYTC is discussed.

For non-capital investments, several other potential sources of funding exist. Paula M Nye grants could be a very successful source of funding for the policy and education based initiatives proposed above. Local health departments are also able to access some funding for community programs, as are tourism offices and economic development organizations.

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## **APPENDIX A**

Blank Survey Form

This survey has been created to get information about people's habits and attitudes about bicycling and walking in the City of London and in Laurel County. The information from this survey will be presented at the next public meeting on May XXXXX, and will be used to help guide planning for bicycling and walking in the City of London and Laurel County.

All information collected from this survey is collected anonymously, and will be combined to represent the community. Please remember, **even if you NEVER ride a bicycle or walk anywhere, we still need your thoughts and opinions** to include everyone's voice in planning our community. Thank you!

**1.) Do you:**

Live in London, KY	Y / N
Work in London, KY	Y / N
Live in Laurel County, outside of London	Y / N
Work in Laurel County, outside of London	Y / N

**2.) From 1 to 5, how much do you agree with the following statements? Circle the number that relates to your feeling:**

**1 = Disagree Strongly, 2 = Disagree Somewhat, 3 = Neutral, 4 = Agree Somewhat, 5 = Agree Strongly**

a.) I think downtown London is a safe place to ride a bicycle	1	2	3	4	5
b.) I think drivers in London are respectful of cyclists	1	2	3	4	5
c.) I think Laurel County is a safe place to ride a bicycle	1	2	3	4	5
d.) I think drivers in Laurel County are respectful of cyclists	1	2	3	4	5
e.) I think downtown London is a safe place to walk/run	1	2	3	4	5
f.) I think drivers in London are respectful of walkers/runners	1	2	3	4	5
e.) I would cycle more often if there were more facilities	1	2	3	4	5
f.) I would walk more often if there were more facilities	1	2	3	4	5
g.) I would cycle more often if I felt safer	1	2	3	4	5
h.) I would walk more often if I felt safer	1	2	3	4	5

**3.) Please circle up to two types of projects you think are most worthwhile in terms of improving cycling or walking in the City of London and Laurel County, for each of these uses:**

**a.) Recreational cycling**

new trails/lanes      rider/driver education      new signage      new events      other \_\_\_\_\_

**b.) Commuting by bicycle (riding daily to work or school)**

new trails/lanes      rider/driver education      new signage      new events      other \_\_\_\_\_

**c.) In town transportation (riding for transportation for errands, to the library or grocery store, etc.)**

new trails/lanes      rider/driver education      new signage      new events      other \_\_\_\_\_

**d.) Recreational walking**

new trails/lanes      driver education      new signage      new events      other \_\_\_\_\_

**e.) Walking for transportation**

new trails/lanes      driver education      new signage      new events      other \_\_\_\_\_

**f.) Walking/Cycling for health**

new trails/lanes      rider/driver education      new signage      new events      other \_\_\_\_\_

**4.) What other comments/concerns/thoughts do you have about non-motorized transportation in the City of London and Laurel County?**

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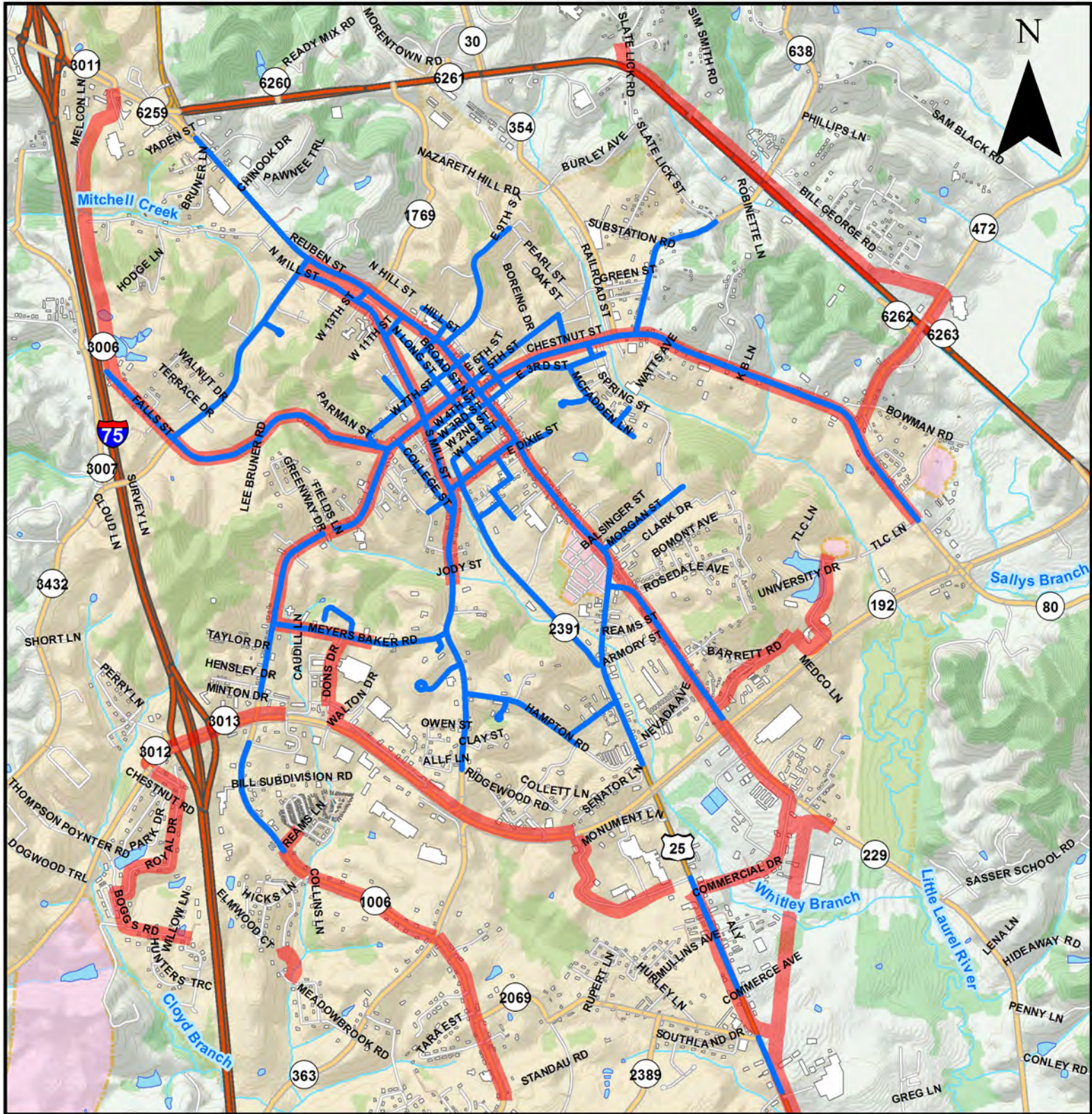
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## **APPENDIX B**

### Existing Sidewalk Inventory in London



# Updated Inventory of Existing Sidewalks



- Existing Sidewalks
- All Proposed Projects

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## **CD ROM Contents**

### **Sidewalk\_Inventory.kmz**

Sidewalk Issues / Gaps Database in Google Earth Format

### **Survey\_Data.xls**

Raw Survey Data in Excel Spreadsheet