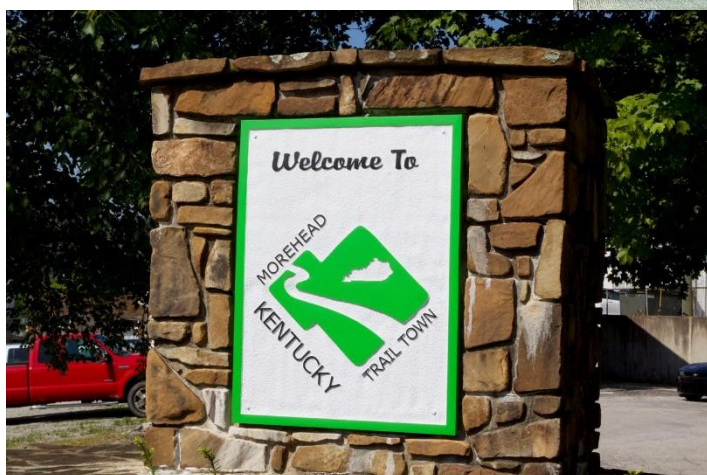


CASE STUDIES OF BICYCLING & WALKING IN SMALL COMMUNITIES: *MOREHEAD, KENTUCKY*



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COVER IMAGES

Front Cover Top: Pedestrian walking with child in a stroller in downtown Morehead

Front Cover Middle: Pedestrians walking across KY32 at its intersection with Main Street

Front Cover Bottom: Morehead, Kentucky highlighting its designation as a Trail Town

The back cover presents a photo collage of people walking and bicycling in Morehead, Kentucky, as observed by the case study researchers while on-site.

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EXECUTIVE SUMMARY

Morehead, Kentucky, with approximately 7,700 residents, is in the Appalachian region of northeastern Kentucky. Morehead has ties to some of the earliest roadways in the U.S., serving as a community along the original transcontinental auto trail. Yet in 2019, more than ten percent of Morehead residents reported walking to work. There are two clusters of development in Morehead -- one closer to I-64 and one near the historic downtown, which borders Morehead State University's campus. As identified through a bicycle and pedestrian plan, most of the walking and bicycling infrastructure is found near the downtown, and this is also where most of the walking and biking takes place in the community.

INTRODUCTION

Walking and bicycling have become increasingly popular modes of transportation and the existence of dedicated infrastructure to support active modes offers benefits to a community and its residents. While examples of active transportation infrastructure found in larger communities are well documented, this infrastructure can look different in rural communities and documented examples are lacking. This research effort aims to address this gap. Case studies from fifteen communities with fewer than 10,000 residents were developed. The case studies feature existing rural bicycle and pedestrian infrastructure located across five states, to include: Arcadia, LaBelle, and Taylor Creek in Florida; Calvert City, Corbin, and Morehead in Kentucky; Pelican Rapids, Pipestone, and Walker in Minnesota; Ruidoso, Silver City, and Truth or Consequences in New Mexico; and Fair Haven, Morristown, and the Town of Hartford in Vermont. Communities were selected using a prioritization process developed through a cooperative effort between the state departments of transportation and the researchers. More details about the research project, Case Studies of Communities of Less Than 10,000 People with Bicycle & Pedestrian Infrastructure, as well as additional case studies can be found at:

https://westerntransportationinstitute.org/research_projects/case-studies-of-communities-of-less-than-10000-people-with-bicycle-pedestrian-infrastructure/

Case studies provide a detailed description of each community including a discussion of recent planning efforts related to bicycle and pedestrian infrastructure, supporting programs, and partnerships. Site visits, approximately one day per community, were conducted from June through December of 2021. During these visits, researchers collected spatial data and photographs to document existing infrastructure. Within this day visit, researchers also captured photos of people walking and bicycling in the communities, which can be found on the back cover of each case study. They also reached out to local advocates and community leadership. Lessons learned and best practices were documented from reviewing the planning documents and speaking with advocates and community leadership. The case studies aim to provide peer communities with the knowledge and encouragement to support additional implementation of active transportation infrastructure in rural communities across the US.

This case study focuses on Morehead, Kentucky.

BACKGROUND OF THE COMMUNITY

Morehead, Kentucky has approximately 7,653 residents (2019) and has experienced an 11.8% population increase since 2010. It is the largest city and the county seat of Rowan County, in northeastern Kentucky. The community's boundaries encompass 9.6 square miles.

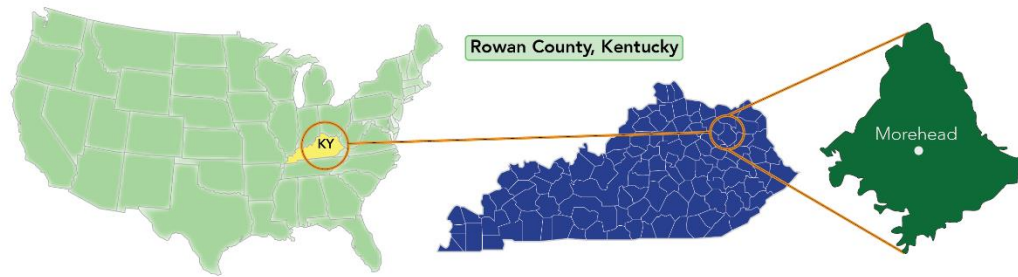


Figure 1: Location of Morehead, Kentucky of Rowan County in northeast Kentucky.

The following paragraphs provide demographic and socioeconomic data about the community so that peer communities can better understand similarities and differences between their community and this case study community.

The average age of Morehead residents is 22.6 years old (2019). Approximately 10.2% (2019) of homes in Morehead are vacant which includes seasonal housing, vacant housing for rent/sale, and vacant housing held off the market.

Approximately 30.2% (2018) of Morehead residents are employed within the community; a statistic which may provide a level of understanding regarding residents' commute distance and potential interest in walking or biking to work. According to the 2019 American Community Survey, 10.5% of people in Morehead walk and 2.1% bicycle to work for their daily commute. Morehead has a 5.0% (2019) unemployment rate. Considering household income, both the average and extremes, Morehead's median household income is \$29,838 (2019), with 16.6% of households earning less than \$10,000 and 5.2% earning more than \$200,000. Approximately 31.9% (2019) of Morehead's population lives in poverty.

COUNTY TYPOLOGY

According to the rural classification methodology used in *Emerging Technology and Opportunities for Improved Mobility and Safety for Rural Areas*, Morehead is located within a county that was designated as a Rural Towns County Type. A Rural Towns County Type refers to cities or towns with fewer than 20,000 people.

COMMUNITY HISTORY

US60 on the south side of Morehead, was known as the Midland Trail and was the "first transcontinental auto trail connecting the east to the west" until Interstate 64 was

completed. The history of automobile travel therefore has a significant association with the community.

Morehead is surrounded by the Daniel Boone National Forest and has been designated as a “Trail Town” (see bottom left picture on the cover page). There is an extensive trail network throughout Rowan County. Morehead is unique in that it is the only town in Kentucky with a national recreation trail, the Sheltowee Trace National Recreation Trail (NRT), running down its main street. However, the Sheltowee Trace NRT in this corridor no longer looks like a typical trail; it has become part of the urban core, providing a unique level of accessibility to the trail for many users.



Figure 2: Sheltowee Trace National Recreation Trail marker

Morehead is located within about a day’s drive of seventy percent of the U.S. population. To some, Morehead is viewed as the gateway between eastern and western Kentucky.

Development in Morehead is concentrated in two distinct areas – an area near I-64 (Figure 3) and an area near the historic downtown (Figure 4). These areas are separated by about three and a half miles. Larger supermarket chain grocery stores are found near I-64; however, a smaller, more local grocery store is in the downtown area. There is also another grocery store at the southern end of the downtown core.

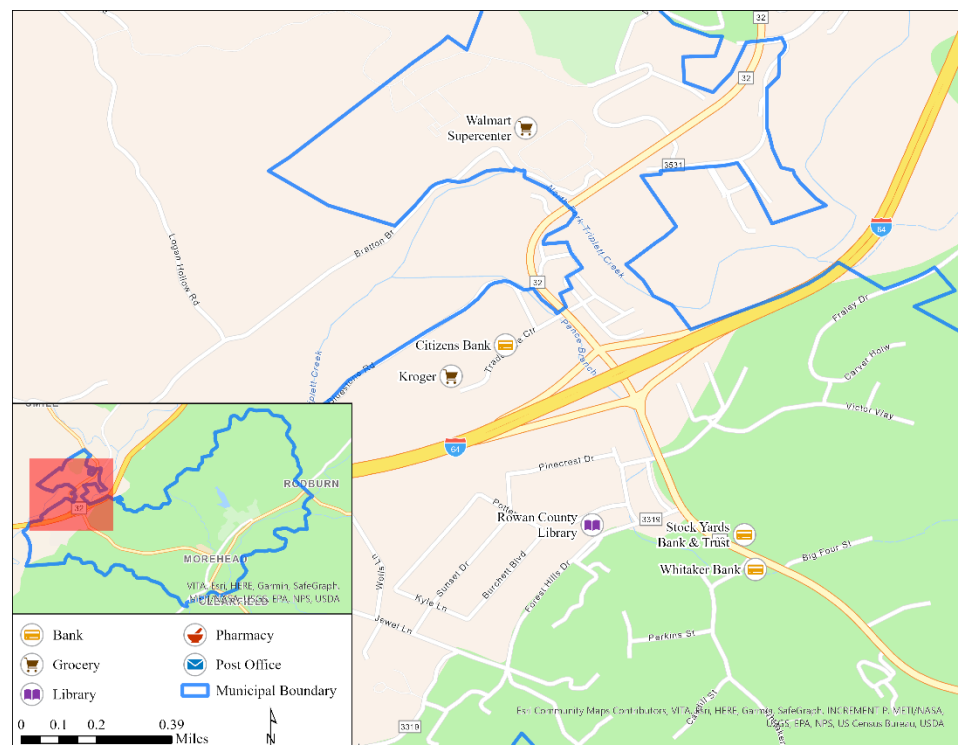


Figure 3: City map of Morehead, Kentucky showing boundaries and services in the northwestern part of the community.

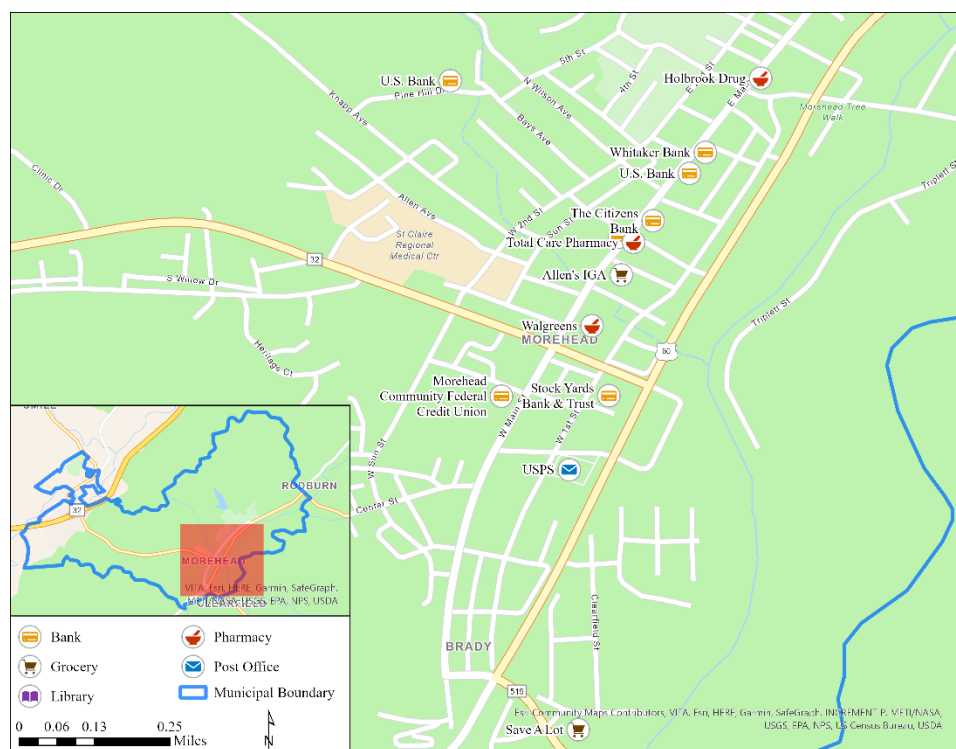


Figure 4: City map of Morehead, Kentucky showing boundaries and services near the historic downtown.

The Rowan County Public Library was previously located in the downtown core but is now located in the I-64 cluster of development.

The Camden-Carroll Library, part of Morehead State University, is still present within the downtown core. Morehead State University offers one hundred forty-two undergraduate and sixty-eight graduate degree programs in four colleges. Enrollment is around 9,300 students hailing from Kentucky, forty-six other states and eighteen countries.

The post office is located south of a state road (KY-32), in proximity to county offices (bottom part of Figure 4).

There are numerous pharmacies located in the downtown core and near the I-64 cluster of development.

HEALTH

The Downtown Walking Trail was created to provide a route that people may use on their lunch break to get out and move. The trail is designated by markings on the sidewalk (see #7 in Figure 7) and signs (Figure 5).



Figure 5: A wayfinding sign for the Morehead Downtown Walking Trail.

St. Claire Regional Medical Center, located within the community, identifies itself as an advocate for the bicycle and pedestrian network.

Improved public health is a goal stipulated in the bicycle and pedestrian plan, which notes that when walking and bicycling are safe and accessible, more people will choose these modes.

TOURISM

Morehead does not bill itself as a primary tourist destination, although community members have noted that being designated as a Kentucky Trail Town has helped to attract visitors. In addition, Cave Run Lake, which is about twelve miles out of town, is a tourist draw. Residents highlight the “plethora of amenities” available locally, including art galleries, the university campus, a community park, an indoor recreation facility, a fish hatchery, camping, hiking, mountain biking, a bike repair station, outdoor dining, museums, historical shops, driving tours and more as other potential tourist draws.

TIMELINE

A timeline of events is provided in Table 1 to describe major milestones in the evolution of bicycling and walking in Morehead, Kentucky. State-level efforts influencing local bicycle

and pedestrian infrastructure planning and decision-making, particularly related to the Kentucky Trail Town effort, are also included in the timeline.

Table 1: Timeline of major milestone events for bicycle and pedestrian infrastructure.

Year	Event
2008	Louisville, Kentucky adopts Kentucky's only Complete Streets Policy
2014	Morehead is designated as the 3 rd Kentucky Trail Town
2014	Morehead's Trail Town Task Force (TTTF) is created
2015	Kentucky's Pedestrian and Bicycle Task Force is established
2015	Shared lane use markings (aka "sharrows") are installed along Main Street
c.2017	Battson-Oates Dr., from Main to Second, is temporarily closed to motor vehicles
2019	The first Octoberfest Evening, which includes temporarily closing a part of Battson-Oates Dr., is held
2019	The Morehead-Rowan County Bicycle and Pedestrian Plan is adopted
2020	During COVID-19, Battson-Oates Dr. is closed to allow local restaurants to sell food outdoors
2021	On Saturday, July 3, 2021, the Downtown Entertainment District in Morehead is launched
2021	Planning is on-going to permanently convert the now permanently closed Battson-Oates Dr, from Main to Second, into a pocket park

EVOLUTION OF *PLANNING* FOR BICYCLE AND PEDESTRIAN INFRASTRUCTURE

Morehead has a comprehensive plan that speaks broadly about the community's desire to be more bicycle and pedestrian friendly. However, some feel that more specifics need to be integrated into the plan.

A Trail Town Task Force (TTTF) was created in 2014 as a requirement for Morehead's designation as a Kentucky Trail Town. The TTTF was tasked with developing an Action Plan and identifying roles and responsibilities for implementation. In 2019, the city and county adopted the Morehead-Rowan County Bicycle and Pedestrian Plan, which acknowledges the "significant value" of the TTTF. The university and local tourism office reportedly also adopted the plan, which outlines the implementation of sixteen projects over the course of seventeen years with an estimated cost of \$7.54 million.

The 2019 bicycle and pedestrian plan indicates that previous efforts to make Morehead more bicycle and pedestrian friendly were unsuccessful because community support was not obtained. As a result, significant effort was made during the development of the bicycle and pedestrian plan to engage the public.

The plan recommends that bicycle and pedestrian facilities be included in future road projects and suggests that walking and biking are "stimulating ways to explore, experience places, get active, promote community vitality and benefit the environment." The plan cites the following statistics from the U.S. Department of Transportation: "...when communities participate in non-motorized transportation projects, walking trips increase by 16% over 5 years and biking trips increase by 44%."

The quality of existing walking and bicycling infrastructure and programs in the historic downtown and university area is highlighted. It is no surprise that the plan also identifies this area as having the greatest portion of active transportation commuters.

EXISTING BICYCLE & PEDESTRIAN INFRASTRUCTURE

Table 2 summarizes bicycle and pedestrian infrastructure identified across all case study communities, noting which ones were observed while on-site in Morehead, Kentucky.

Table 2: Bicycle and pedestrian infrastructure found across all case study communities, with those found in Morehead noted.

Bicycle and/or Pedestrian Infrastructure in Case Study Communities	Presence in Morehead
Bicycle Lane	
Bike Rack	X
Shared Lane Markings	X
Sidepath	
Defined Bike Route (by signage)	
Multi-Use Pathway	
Trail (soft surface)	X
Rectangular Rapid Flashing Beacon (RRFB) Crossing	
Mid-Block Crossing	X
Crosswalk	X
Sidewalks	X
Bridges that enable walking or biking	X
Underpasses that enable walking or biking	
Parklet	X
Benches	X
Repair Station/Air Pump	X
Speed Bump/Speed Table	X
Speed Feedback Sign – Permanent	
Speed Feedback Sign – Portable	
Signage	
<i>Bike/Ped Crossing Sign with light emitting diode (LED) lights</i>	
<i>Bicycle May Use Full Lane</i>	
<i>Share the Road</i>	
<i>State Law, Yield/Stop for Pedestrian in Crosswalk</i>	
<i>Steep Grade</i>	
<i>Drive Slow in Residential Areas/Please Slow Down</i>	
<i>Traffic Calming Area</i>	
<i>Weight Limitations</i>	
<i>Interpretative/ Wayfinding Information</i>	X
<i>Walking Routes</i>	X
<i>Entertainment District</i>	X

Main Street (in the developed cluster near the university) has a sidewalk the length of town. Main Street is viewed as the main walking and bicycling artery and connects to many other destinations of interest to those walking and bicycling.

Coming out of the National Forest, the Sheltowee Trace NRT appears more like a traditional trail (#1 in Figure 7 below). However, as the trail travels through the community, it

transitions onto Main Street's sidewalks, providing unique trail access to all. Further supporting access to this national amenity, the community provides long-term parking spaces to trail users (#5 in Figure 7).

The community has closed off a roadway and transitioned it into a space where patrons of local restaurants can eat their food outdoors at provided picnic tables (#2 in Figure 7). This closed section of roadway is part of Morehead's "Entertainment District". The community is currently working with landscape architects to further formalize the amenities offered in this space.

Crosswalks along Main Street are defined visually to motorists with signs and markings (#3 in Figure 7). Speeds are posted at 20 mph on Main Street to further support walking and bicycling.

Speed humps were found along roadways that provide access to the university (#4 in Figure 7).

Several bicycle racks can be found throughout the community, including one that was personalized by a local girl scout troop (#6 in Figure 7) showing that personalization of supporting bicycle infrastructure does not have to cost significant amounts of money and can further engage a variety of community-members.

Several walking trails have been designated throughout the community including the: 1) walking trail (#7 in Figure 7) which has stamps on the sidewalks throughout the community directing users where to go; 2) an art walk (Figure 6 (left) and #8 in Figure 7) and 3) a walking history tour (Figure 6 (right)).



Art walking tour sign



Walking history tour sign, plaque commemorates historic flooding

Figure 6: Signs for historic and art walking tours in Morehead, Kentucky.

Shared lane use markings are present along Main Street (#9 in Figure 7). These were put in place along with bicycle racks in 2015 to make the community more walkable and bikeable. A lot of the interest was spurred by Morehead's designation as a Kentucky Trail Town in 2014. It was the third Kentucky community to receive this designation.

Overall, the majority of bicycle and pedestrian infrastructure radiates from the Main Street core, which was identified in the plan as needing further improvement.

BICYCLE & PEDESTRIAN INFRASTRUCTURE MAP



Figure 7: Morehead Bicycle & Pedestrian Infrastructure Map.

SUPPORTING PROGRAMS FOR BICYCLE AND PEDESTRIAN INFRASTRUCTURE

Several supporting programs were identified across multiple case studies and are shown in Table 3. Several examples were found in Morehead that were observed while on-site or documented in reports, including a mural on the side of a building on Main Street (Figure 8).

Table 3: Bicycle and pedestrian supporting programs in case study communities noting those found in Morehead

Bicycle and/or Pedestrian Supporting Programs in Case Study Communities	Presence in Morehead
Demonstration/Pilot Projects	
Art Walks/Historical Walk/Children's Walk/Health Walk	X
Sculpture(s)/Statue(s)	X
Mural(s)	X
Little Free Library	



Figure 8: A mural on Main Street in Morehead, Kentucky.

Pre-COVID-19, the community hosted an annual regional cycling event--Bike Morehead, a century ride. The bicycle and pedestrian plan also mentions community bike rides hosted on the fourth Sunday of every month, from April through October.

The coronavirus pandemic resulted in Battson-Oates Drive being closed off to vehicular traffic where it connects with the university, allowing restaurant patrons to eat in streets repurposed with picnic tables and chairs. During the winter, heaters were installed in the

area and food trucks were provided with electricity to support their presence. Efforts to make this closure permanent are on-going.

The community hosts several events throughout the year where they temporarily close off portions of Main Street, allowing only pedestrian traffic.

A community group coordinated the donation and repainting of a fleet of bicycles around 2007 to start a local bikeshare program. Unfortunately, the bikes eventually disappeared. Morehead State University later considered opportunities to deploy a bikeshare program through a third-party provider, but funding set aside to support the program was re-allocated to other needs during the Great Recession (c. 2009).

Today, however, Morehead has a company that provides scooters throughout the community (Figure 9). Residents have identified that at one point, they had two scooter providers. They also question whether the interest in scooters over bicycles may reflect the number of people that know how to ride a bicycle.



Figure 9: Scooters are available in Morehead.

The bicycle and pedestrian plan states that a bike shop provides bike rentals. The plan also suggests that Morehead State University has a bikeshare program. Neither seems to exist presently.

LEARN TO RIDE

The bicycle and pedestrian plan identified a need for bicycle and pedestrian safety and education. Efforts had been underway to start programs in the school system to teach children how to ride bicycles in 2020 but were postponed due to the coronavirus pandemic. The Morehead Trail Town Task Force, however, is working on planning to introduce such programs in 2022.

PARTNERSHIPS TO PLAN & IMPLEMENT BICYCLE & PEDESTRIAN INFRASTRUCTURE

The community has a representative that is an active participant in region-level transportation meetings. The community has also contracted with an entity that advocates for the community at the state level.

In the process of creating the bicycle and pedestrian plan, state department of transportation district representatives were engaged to review existing policies and plans in relationship to the goals of the bicycle and pedestrian plan. In addition, Morehead

requested that projects identified within the bicycle and pedestrian plan be included in future planning and design projects at the state level.

FUNDING FOR BICYCLE & PEDESTRIAN INFRASTRUCTURE

Based on recommendations from the developed bicycle and pedestrian plan, the community has applied for funding from the Recreation Trails Program and the Land and Water Conservation Fund (LWCF). The plan also targets Transportation Alternative Program (TAP) funding.

The bicycle and pedestrian plan identifies Morehead Tourism as being responsible for “aggressively” pursuing bicycle and pedestrian funding. The plan recommends that continual engagement of the Gateway Area Development District (a regional entity) and Kentucky Transportation Cabinet’s (KYTC’s) District 9 (specifically identifying the KYTC’s Local Public Agency Coordinator) as keys to successfully pursuing funding.

The community is planning to leverage their designation as a distressed county through the Appalachian Region Commission to access additional grants.

In 2021, Morehead was awarded a grant to fund the development of a pathway to connect the city park to a cluster of businesses on the southeast side of US60.

LESSONS LEARNED

Adoption of the bicycle and pedestrian plan within the community has enhanced efforts to support the development of bicycling and walking facilities and programs. Prior to the plan’s adoption, modifications to roadways were not necessarily made with bicycle and pedestrians in mind.

The creation of the TTTF was required for designation as a Kentucky Trail Town. TTTF helped spur the implementation of additional infrastructure that supported walking and bicycling in the community.

A lack of community engagement in previous planning efforts limited their success in Morehead. Morehead representatives therefore recommend focusing on public engagement processes during planning and implementation of projects to support bicycling and walking.

THE FUTURE OF BICYCLE & PEDESTRIAN INFRASTRUCTURE IN THE COMMUNITY

Plans are currently underway to build a pathway between the city park and businesses near US60.

There is an interest by community members to connect from the downtown core to Cave Run Lake at some point in the future.

KEY POINTS

The community has noted that with the recently adopted bicycle and pedestrian plan, there is more traction to get new bicycle and pedestrian infrastructure and supporting programs in place in the community.

The community recommends ensuring participation in region-level transportation meetings to ensure that the community's interests are represented in roadway improvements and/or new construction.

Morehead has attributed some of its success to thinking beyond the community and county boundaries, to more regional aspirations, which was driven by their participation in the Kentucky Trail Town Program.

SUCCESSFUL STRATEGIES TO APPLY IN OTHER SMALL COMMUNITIES

The following are successful strategies employed by Morehead:

1. Develop a bicycle and/or pedestrian plan
2. Participate in transportation meetings at the regional level
3. Seek specialized designations, like becoming a Kentucky Trail Town or similar
4. Think beyond your community – look for opportunities to promote bicycling/walking within the county or regionwide
5. Engage the public early and often in the planning process – this will assist with getting and sustaining community buy-in

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