

BICYCLE & PEDESTRIAN MASTER PLAN

POWELL COUNTY, KENTUCKY
2015



THIS PLAN WAS CREATED THROUGH A GRANT FROM PARTNERSHIP FOR A FIT KENTUCKY WITH THE COOPERATION OF THE POWELL COUNTY FISCAL COURT, THE CITIES OF CLAY CITY AND STANTON, THE POWELL COUNTY HEALTH DEPARTMENT, AND THE BLUEGRASS AREA DEVELOPMENT DISTRICT.

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**A RESOLUTION OF THE FISCAL COURT OF
POWELL COUNTY, KENTUCKY
TO SUPPORT ADOPTION OF THE
POWELL COUNTY BICYCLE & PEDESTRIAN PLAN**

Whereas, The Fiscal Court of Powell County represents the citizens of Powell County; and

Whereas, the citizens of Powell County understand the importance of incorporating and planning for all modes of transportation and have invested interest in bicycling and pedestrian through the creation of a countywide bicycle and pedestrian planning document. This planning document incorporates best practices, policies and projects within the County; and

Whereas, numerous benefits result from the active bicycle and pedestrian use, including an alternate, non-motorized transportation option and, by enhancing the health, well-being and quality of life for our citizens and promoting community investment, economic growth and development through increased tourism; and

Whereas, the Plan will be presented to Fiscal Court for adoption at the June 9, 2015 Fiscal Court meeting, therefore be it

Resolved that we support the adoption of the Powell County Bicycle & Pedestrian Plan, along with its related appendices and recommended projects, programs and policy updates

Adopted this 9th day of June, 2015

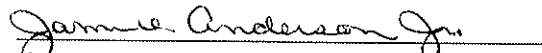

James Anderson, Judge-Executive
Powell County Fiscal Court

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View from Furnace Mountain

I. Introduction

Purpose of the Plan

This bicycle and pedestrian plan has been developed for Powell County, Kentucky. In 2015 the community applied for and was awarded a mini-grant from Partnership for a Fit Kentucky to create a pedestrian plan for a focus neighborhood. Due to the rural nature of the community, it was feasible to address the needs of the entire county instead of focusing on a single neighborhood. This plan was developed with input and active involvement from the public and from local elected officials as well as local appointed bodies.

Letters of support for the mini-grant submittal were provided by the Powell County Judge-Executive and the Mayors of Clay City and Stanton. The Powell County Health Department acted as fiscal agent and provided a letter of support and the Bluegrass Area Development District provided technical assistance and facilitated the public meetings.

The purpose of this bicycle and pedestrian plan is to stimulate dialogue concerning the health, transportation, and tourism needs of the community and to provide direction in addressing those needs through public input and deliberate action.

The plan has been developed in order to:

- identify policies to make walking and bicycling in Powell County safer, easier, and more attractive;
- identify standards and guidelines for pedestrian and bicycle facility design; and
- provide an action plan for future improvements to the bicycle and pedestrian network.

The Benefits of Walking and Bicycling

There are a number of reasons to promote walking and bicycling in Powell County:

Improved Public Health

Kentucky is ranked the 47th healthiest state in the nation, Powell County ranks 116th in Health Outcomes out of 120 Kentucky Counties, and one third of our county's population is obese while more than one quarter of our residents are disabled. It is widely recognized that regular daily physical activity reduces the risk for heart disease, diabetes, and obesity. By increasing the amount of public space for convenient and safe recreation and active transportation, Powell County can increase the overall health of residents and the community and the environment.

Improved Mobility

Opportunities for walking and bicycling provide alternative means of travel for a broader range of individuals. Children and seniors particularly benefit from having choices to get around besides driving. By making more connections and greater access to all parts of the community, Powell County can increase the ability to meet their transportation needs.

Enhanced Economy and Quality of Life

A better environment for walking and biking improves the quality of life of a community. When people are out of their cars and walking and biking in the community, more opportunities for social interactions exist. A walkable and bike-able community has economic advantages over other communities such as having higher property values, being attractive to new businesses, and being inviting to tourists. By planning for future bicycle and pedestrian accommodations, Powell County can become a thriving community within the region.

Vision and Goals of the Plan

“The best time to plant a tree was twenty years ago. The second best time is now.”
~Chinese proverb

Vision

The vision of this plan is to provide the information necessary to overcome the barriers to individual and community health while providing opportunities for recreation and economic development.

Goals

1. Increase level of walking and biking through:
 - a. Infrastructure improvements: identify, develop, and construct attractive and functional bicycle and pedestrian facilities;
 - b. Connectivity and access: create bicycle and pedestrian connections between the places where we live and the places we want and need to go; and
 - c. Community building: develop policies and projects which encourage pedestrian and cyclist travel throughout the County.
2. Include pedestrian and cyclist considerations into all projects, policies, and planning processes within the County.
3. Inform and educate residents of the benefits of walking and cycling.

Factors that Influence Walking and Biking in Powell County



Along KY 11 between Clay City and Stanton

Destinations

Places within the community are major attractors for walking and cycling, including retail clusters, schools, parks, and places of employment. It is important to provide other avenues beyond the motor vehicle to these common destinations.

Time and distance

Within city limits it is easier to walk and bike to destinations than in the rural portions of the County. Most walking trips are less than a mile and bike trips less than five, though recreational trips tend to be longer for each. People are more likely to choose to walk or bike if it is efficient to do so.

Demographics

Those who are too young or too old to drive and those who do not drive for medical or economic reasons rely on walking and cycling for transportation. It is important to plan for the needs of all residents of Powell County.

Based on American Community Survey 2013 5 year estimates¹, Powell County's population is 12,582. It is estimated there are 2,722 residents in Stanton—the county seat—and 1,069 in Clay City.

Disadvantaged Populations (American Community Survey 2013 5 year estimates):

Population	Percentage of total
Minority	3%
Over 65 Years of Age	13%
Disabled	25%
Below Poverty	31%

Environment

Weather and traffic play an important role in how frequently people within the community walk or bike for transportation. Hot and humid summer conditions and cold and wet winter conditions as well as narrow, curvy roads with fast moving traffic can create significant barriers to walking and biking throughout the County.

Community attitudes

The perception of what is socially acceptable or normal can play a vital role in how frequently people choose walking or cycling for transportation or recreation. As more people choose walking and biking for recreation and transportation, perceptions toward those activities change in a positive manner.

Current Conditions

Powell County is the gateway to the Red River Gorge region which includes thousands of acres of National Forest with hundreds of miles of trails and dirt access roads, Natural Bridge State Resort Park, Pilot Knob State Nature Preserve, and two Wildlife Management Areas. The Red River drains all of Powell County, and in its upper watershed is a designated National Wild and Scenic River and a Kentucky Wild River.

There is a wealth of natural recreational resources within a short distance of the entire population of Powell County. Despite the proximity to trails and waterways, the County has a high rate of obesity and related health problems.

¹ <http://factfinder.census.gov/faces/nav/jsf/pages/searchresults.xhtml>

There are no bike lanes or designated shared lanes on any roadway within Powell County at this time though bicycles are legal vehicles on all roads except the Mountain Parkway. There are many “Share the Road” warning signs (MUTCD W16-1P) throughout the county. Stanton has approximately 5 miles of sidewalks while Clay City has approximately 1.8 miles of sidewalks (Data source: BGADD, 2015). Crosswalks are placed inconsistently and in some cases do not connect to sidewalks.

Both the Clay City and Stanton city parks have loop walking trails. There is also a paved loop path around the veteran’s cemetery in Rosslyn that is frequently used for recreation/fitness. Many people walk and run on roads around the county. In particular the four mile loop comprised of Hatton Creek Road, Steamshovel Hill Road, Caudill Road, and KY 213 is popular.

Bicyclist and Pedestrian Data

There are no reliable counts of how many bicyclists, pedestrians, and recreational runners use the transportation system in Powell County. Anecdotal evidence suggests that there are regular walkers and runners and a smaller number of active cyclists while the number of visiting cyclists are equal to or greater than those who live within the County.

Crash Data

Between May of 2010 and May, 2015 there were 10 reported vehicle/pedestrian collisions in Powell County. There were 11 injuries reported to pedestrians. Three of the 10 incidents were reported as hit and run. No bicycle crashes were reported during this time frame by the Kentucky State Police.



Red River Rally leaving Natural Bridge State Park, October 2014

II. Design Standards and Guidelines

General

The Kentucky Transportation Cabinet (KYTC) has published a statewide Pedestrian & Bicycle Travel Policy which provides guidance on planning for and accommodating pedestrians and cyclists in our state's transportation system:

http://transportation.ky.gov/Bike-Walk/Documents/Task%20Force%20FINAL%20June%202018_02%20policy%20rec%20to%20Sec%20Codell.PDF

In conjunction with KYTC District 10 and Powell County road department's planning activities should always include sidewalks and bicycle lanes (where feasible) within city limits. In rural areas, wider travel surfaces including shoulder bikeways should be constructed when and where feasible.

Pedestrian facilities should always be constructed to be compliant with the Americans with Disabilities Act Accessibility Guidelines (ADAAG) to accommodate all people who live in or visit Powell County:

http://www.ada.gov/regs2010/2010ADAStandards/2010ADAStandards_prt.pdf

The use of continuous shoulder rumble strips should not be considered and instead new roadways or upgrades to existing roadways should include bicycle gaps to allow cyclists to escape either the shoulder or the roadway at reasonable intervals and should not extend continuously onto side roads. It is recommended that any rumble strips installed should be of the rolled type versus the milled type.



Continuous shoulder rumble strip along KY 11 in Slade

Signage and Mapping

For general signage, planning project planners should refer to the Manual of Uniform Traffic Control Devices and consult KYTC for guidance before recommending or placing signage adjacent to roadways:

<http://mutcd.fhwa.dot.gov/pdfs/2009r1r2/mutcd09r1r2editionhl.pdf>

It is recommended that a countywide bicycle and pedestrian map be developed and produced.

Wayfinding signage should be developed and implemented, in conjunction with a countywide navigational map and as new facilities are built, to aid new users and visitors in getting around the county.



Bicycle Parking

Powell County should seek to encourage and incentivize businesses and organizations to provide secure and accessible bike parking that is convenient for users. In general bicycle racks should be located in a highly visible area to prevent theft, be unobstructed nor cause any obstruction to other traffic, and be mounted solidly to the ground or building in such a way that it cannot be easily removed. There should be a minimum clearance of 48" around the bike parking area and 72" should be allowed for a single bike lengthwise unless the rack allows vertical mounting. When feasible and possible bike parking should be covered to protect cyclists and their bikes from the weather.

Please refer to the *Association of Pedestrian and Bicycle Professionals Bicycle Parking Guidelines* for more details:

http://c.ymcdn.com/sites/www.apbp.org/resource/resmgr/publications/bicycle_parking_guidelines.pdf

Definitions

Bicycle gap: A recurring short gap in continuous shoulder rumble strips designed to allow for ease of movement of bicyclists from one side of the rumble to the other. A typical pattern is gaps of 10 to 12 feet between groups of the milled-in elements at 40 to 60 feet. [Source: FHWA]

Bike lane: A portion of a roadway which has been designated by striping and pavement markings for the preferential or exclusive use of bicyclists. [Source: www.rtams.org]

Bikeway: Any road, path, or way which in some manner is specifically designated as being open to bicycle travel, regardless of whether such facilities are designated for the exclusive use of bicycles or are to be shared with other transportation modes. [Source: www.rtams.org]

Crosswalk: A marked lane for passage of pedestrians, bicycles, etc., traffic across a road. [Source: www.rtams.org]

Curb cut: A solid (usually concrete) ramp graded down from the top surface of a sidewalk to the surface of an adjoining street. It is designed for pedestrian uses and commonly found in urban areas where pedestrian activity is expected. [Source: http://en.wikipedia.org/wiki/Curb_cut]

Multi-use path: A path physically separated from motor vehicle traffic by an open space or barrier and either within a highway right-of-way or within an independent right-of-way, used by bicyclists, pedestrians, joggers, skaters, and other non-motorized travelers. [Source: www.rtams.org]

Rumble strip: A *shoulder rumble strip* is a longitudinal safety feature installed on a paved roadway shoulder near the outside edge of the travel lane. It is made of a series of milled or raised elements intended to alert inattentive drivers (through vibration and sound) that their vehicles have left the travel lane. An *edge line rumble strip* is a special type of shoulder rumble strip placed directly at the edge of the travel lane with the edge line pavement marking placed through the line of rumble strips. [Source: FHWA]

Shoulder bikeway: A type of [marked] bikeway where bicyclists travel on a paved shoulder. [Source: www.rtams.org]

Sidepath: A type of multi-use path that parallels a roadway, typically only on one side. [Source: BGADD]

Sidewalk: A walkway separated from the roadway with a curb, constructed of a durable, hard and smooth surface, designed for preferential or exclusive use by pedestrians. [Source: www.rtams.org]



L: An example of a bike lane (Paris, KY) and R: of a wayfinding sign along a bike route



Trail crossing along a suburban boulevard, Brighton Rail Trail, Lexington, KY

III. Trail Corridors

Three primary focus corridors have been outlined in this plan. Each corridor is broken down into sections for ease of further project development. Cost estimates have been locally sourced, but are only for planning purposes. More detailed cost estimates would need to be calculated prior to moving forward on any listed project.

Trail distances are also estimated. Final alignments would determine the exact distance and cost of each section and the overall corridors described. These corridors could be built out with a combination of multi-use paths, bicycle and pedestrian routes along existing roadways utilizing sidewalks and bike lanes, or some other innovative design.

Every effort should be made to build community consensus while taking advantage of physical, economic, and social opportunities in the planning and design of these potential trails. This list of potential projects is simply a wish list and does not guarantee the eventual construction of any of the proposed sections.



Dawkins Line Rail Trail near Prestonsburg, KY

Red River Trail Corridor

The concept of the Red River Trail is a corridor to connect western Powell County with eastern Powell County and provide connection points into Clark, Wolfe, and Lee Counties. More specifically the Red River Trail may incorporate elements of the abandoned Kentucky Union Railway, existing public road and utility right-of-ways, and the greenspaces along Red River and its tributaries.

This proposed trail corridor would make a crucial bicycle and pedestrian connection between Clay City and Stanton as well as extending into the unincorporated parts of the county within the river valley. The corridor could be accessed by future connector trails from different neighborhoods and areas of the county.

The importance of a countywide trail system of this nature cannot be overstated. Creating this connection through Powell County could fundamentally change transportation patterns and choices for many residents. This trunkline trail corridor would also support any future efforts to acquire Trail Town designations for Powell County communities through the Kentucky Office of Adventure Tourism.

<http://www.kentuckytourism.com!/userfiles/Industry/Adventure/WORKBOOK.pdf>

The total estimated trail length would be roughly twenty to twenty-five miles. Ideally the corridor would be all hard-surface; either concrete or asphalt. The project could be phased to take advantage of simpler sections of trail and to address priority connections. In areas where wet soil or flooding wouldn't be a problem, soft surfaces could be employed to reduce construction and maintenance costs.

The total project can be logically split into twelve sections within the county and fifteen overall extending into Wolfe County from the Natural Bridge area along the old rail corridor.

Partners for this project would include City of Clay City, City of Stanton, Powell County Fiscal Court, Powell County Health Department, Clay City Park & Rec, Stanton Park & Rec, Natural Bridge State Resort Park, US Forest Service, Kentucky Transportation Cabinet, Kentucky Rails-to-Trails, Department of Local Governments, Bluegrass Area Development District, and various private landowners along potential trail alignments.

Proposed trail sections are described from west to east in logical succession with general descriptions.

Section 1: West Bend

This section would most likely cross private agricultural and residential land in proximity to the Mountain Parkway and KY 15 from the Clark County line to Waltersville.

Constraints would be access to an adequate trail corridor, construction costs for rolling topography, and gaining local support. Approximately 4.5 miles. Estimated cost is \$1.2 million not including any bridges.

Section 2: Waltersville

Beginning near Adams Ridge Road along KY 15 this section could be constructed as a sidepath in conjunction with highway improvement project, as a designated route along the existing Fallen Road, or as an off-highway multi-use path near Brush Creek near its mouth on Red River to a proposed Clay City Riverwalk path. Topography is generally flat. Approximately 0.5 miles. Estimated cost is \$132,000 not including a bridge over Red River.

Section 3: Clay City

Continuing through Clay City the route could then generally follow the old KU alignment just north and parallel to KY 11/15, it could follow a proposed Clay City Riverwalk north or south around town, or could be incorporated as a route along city streets to KY 1057. Topography is generally flat. Approximately 1 mile. Estimated cost is \$264,000.

Section 4: Clay City East

Ideally the next section would pick up the KU railroad alignment near KY 1057 and cross Red River on the old abutments to gain Woody Ware Road on the north side of the river. It could continue along Woody Ware to its eastern terminus. Alternately a route could be developed along KY 11/15 between Clay City and Stanton. Topography is generally flat. Approximately 2 miles. Estimated cost is \$528,000 not including a bridge over Red River.

Section 5: Stanton West

Two primary corridors could be developed. The preferred option would be to construct a trail along the old railbed between Red River and Railroad Street in Stanton crossing the broad floodplain. Through the city, a route could be designated on street to utilize the existing roadway and recent sidewalk improvements near Stanton Elementary. Alternately a route could be developed along KY 11/15 through Stanton incorporating on street bike lanes and sidewalks. Approximately 1.8 miles. Estimated cost is \$475,200 not including a bridge over Red River or over Judy Creek.

Section 6: Stanton East

From KY 213 the corridor would continue either north of KY 11/15 generally along the KU railbed through Airport Subdivision, or within the right-of-way along KY 11/15 in conjunction with a highway improvement project incorporating on street bike lanes and sidewalks. Topography is generally flat. Approximately 1 mile. Estimated cost is \$264,000.

Section 7: Mountain View

Picking up the route just east of the Airport Subdivision this section would continue beyond the corporate limits out to the unincorporated community of Rosslyn. The ideal alignment would be along the KU railbed as much as possible with a crossing of the Mountain Parkway over the existing KY 11/15 bridge or under the Parkway via the Red River bridge. Alternately a future highway improvement project could incorporate additional bike-ped facilities for connectivity. Approximately 1.5 miles. Estimated cost is \$396,000.

Section 8: Rosslyn to Bowen

Multiple options exist as the corridor enters the broad agrarian floodplain east of Stanton. The trail could closely parallel the Mountain Parkway to the north or to the south and take advantage of existing right-of-ways and access roads. It could follow the old railroad alignment overland crossing large tracts of private land. Or possibly a route could be developed along KY 11/15 in conjunction with a future highway improvement project. Approximately 2.8 miles. Estimated cost is \$739,200 not including any bridges. At least one bridge would likely be necessary regardless of the eventual alignment.

Section 9: Bowen to Nada

This section should take advantage of existing right-of-way along the Mountain Parkway and KY 11/15 as much as possible. There are some physical constraints in this section, but overall this portion of the trail is undeveloped and skirts public right-of-way. Approximately 3.75 miles. Estimated cost is \$990,000 not including any bridges over Red River.

Section 10: Nada to Slade

Between the unincorporated communities of Nada and Slade (primarily commercial properties) there is a narrow corridor between KY 11/15 and the Mountain Parkway which has little developable land and within which the Middle Fork of the Red River flows. This section would be a great pilot project and would serve both as a local bicycle and pedestrian connection as well as a tourist attraction for visitors to the Red

River Gorge and Natural Bridge State Park areas. Approximately 1.5 miles. Estimated cost is \$396,000 not including two potential bridges over Middle Fork of Red River.

Section 11: Slade to Natural Bridge

From Slade to Natural Bridge State Park there is a narrow corridor across mostly private commercial properties which are geared toward tourist traffic. A multiuse trail through this constrained corridor would help increase traffic to the local businesses from the State Park and its campgrounds and lodge while helping to reduce roadway congestion during the peak of the tourist season. It could alleviate parking problems while providing more activities for visitors to the area and health and recreation opportunities for residents of the county. A portion of the corridor is on the State Park and they would be a crucial partner in getting this section of the trail built. Approximately 2.1 miles. Estimated cost is \$554,400 not including a bridge over Middle Fork of Red River.

Kentucky Union Railroad Tunnel #2 (not in project list)

Currently the historic railroad tunnel located under the State Park lodge at natural Bridge is closed to the public. Due to the potential cost to re-engineer and make the tunnel safe, it would make sense to look at it as a separate project from the other sections of the trail. It is approximately 600-700 feet in length.

Section 12: Natural Bridge

From Tunnel #2 the next section would pass through Natural Bridge State Park. A trail connection could be accomplished with route markings on the existing park roads, a separate multiuse path, or perhaps a dirt singletrack hike/bike trail off-road. The Powell County section of the proposed Red River Trail would end just downstream of Mill Creek below the dam. The next section would begin at the Wolfe County line near the mouth of Mill Creek on Middle Fork of the Red River. Approximately 1 mile. Estimated cost is \$264,000 if a separate multiuse path is constructed.

Total corridor cost estimate: \$6,190,800 not including bridges, the tunnel, or trailheads for approximately 23.5 miles of trail.

Clay City Riverwalk

The concept of a walking trail around Clay City has existed for some time. The main portion of the town is within an anvil shaped bend in the Red River. At its narrowest point the river is only a quarter of a mile from itself. Between the two points on the river it is three miles by water around Clay City.

The city owns a park and also a defunct treatment plant at the two points making for logical trail connections and access, as well as being connected by a city street. Within the loop of the river are many small private residential parcels. The outer loop properties are comprised more of larger tracts of agricultural land, a golf course, and some commercial properties.

A riverwalk trail around Clay City would provide excellent pedestrian access within the community as well as making fitness opportunities much more proximate to a significant portion of the population. It could also function as a crucial section of the Red River Trail corridor.

Connections could be made along Brush Creek through the Adams Ridge neighborhood, along KY 2026 to connect the Pompeii and Woody Ware areas outside the city limits, and into the eastern neighborhoods within the city limits.

Total system trails and connections could easily be five miles in length and connect all of Clay City for cyclists and pedestrians.

Section 1: Northern Loop

Beginning at the Clay City Park the northern bend of Red River around Clay City encompasses undeveloped agricultural land as well as a large neighborhood north of KY 11/15 known locally as "The Bottoms." An inner loop alignment would cross multiple parcels in the Bottoms neighborhood that are in fairly close proximity to the river bank. This section would end at the KY 11/15 bridge over Red River at Waltersville. Either this section or the next would be ideal alternatives for the proposed Red River Trail Section 3. Approximately 2 miles. Estimated cost is \$528,000.

Section 2: Southern Loop

Beginning at the KY 11/15 bridge over Red River this section would traverse mainly undeveloped woodlands and agricultural tracts with some proximity to residences and Clay City Elementary. The section would logically end at city owned property between the river and the bend of Seventh Street two blocks south of the Clay City Park. Improvements to Seventh Street and Veterans Lane to connect the two bends of the

river at this narrow neck would close the loop at the most feasible termini. Approximately 1.5 miles. Estimated cost is \$396,000.

Section 3: Pompeii Connector

KY 2026 crosses the Red River floodplain southeast of the Clay City Park. A connector trail either along the river or along KY 2026 to the river from KY 11/15 would be the most logical alignments to connect the proposed river walk to the Fife Lick, Woody Ware, and Pompeii areas in lieu of a completed Red River Trail Section 4. Approximately 0.35 miles. Estimated cost is \$92,400.

Section 4: Adams Ridge Connector

Beginning near Clay City Church of Christ and generally following Brush Creek to its mouth on Red River, this proposed alignment could function as a connector for the river walk and as a section of the proposed Red River Trail. Approximately 0.65 miles. Estimated cost is \$171,600 not including a bridge over Red River.

Total corridor cost estimate would be \$1.3 million not including bridges across Red River on connecting trails.



Stephenson Trail, Berea, KY

Judy Creek Trail

The Judy Creek floodplain represents an opportunity to provide connectivity through Stanton north and south from the Red River to near the source of the stream at the foot of Furnace Mountain. This stream flows through the remaining undeveloped and underutilized agricultural land within the city limits. It is proximate to the county courthouse, the county library, Stanton Elementary, a large grocery store, fast food establishments, and the city's two industrial parks as well as a majority of the city's residential areas.

With a short connector trail the proposed Judy Creek Trail could also connect the city park and the high school and middle school campuses with much of the town.

Section 1: Mouth of Judy Creek to Maple Street

This section would likely be the last built, but could make an important pedestrian and cyclist connection for the Pearl Street and Maple Street areas to the main Judy Creek Trail Corridor and to the commercial and government centers in Stanton. Approximately 0.85 miles. Estimated cost is \$224,400.

Section 2: Maple Street to Railroad Street

Much of this section could be built on land owned by the Powell County School District. Stanton Elementary and the public library are in this section, and the southern terminus would be Railroad Street where the trail would tie into a recent Safe Routes to School sidewalk project. Approximately 0.3 miles. Estimated cost is \$79,200 not including a bridge over Judy Creek.

Section 3: Railroad Street to W College Ave

This section passes through more dense residential areas and would connect the Brookside Subdivision and the Breckenridge Street neighborhood with KY 11 (West College Avenue). Approximately 0.4 miles. Estimated cost is \$105,600.

Section 4: W College Ave to Steamshovel Hill Road

This key section would pass through mostly undeveloped land but would connect a major grocery store to the trail system. This area would be the heart of the trail system in Stanton. Approximately 0.3 miles. Cost estimate is \$79,200.

Section 5a: Mountain Parkway Bypass

Judy Creek passes under the Mountain Parkway in a double box culvert which would be unsuitable for a trail. Therefore a route would need to be developed utilizing the

existing underpass along KY 213. There is a sidewalk along KY 213 though it would be insufficient as a multiuse trail. Warning signage and improved trail crossings would be necessary to create a safe trail experience in this congested area of the town. Approximately 0.3 miles. Estimated cost is \$40,000.

An alternative would be to utilize the double box culvert for low water use.

Section 5b: Mountain Parkway to Senior Citizens Center (Industrial Park)

Two options exist in this section: improve the existing sidewalk along KY 213 and perhaps install bike lanes within the roadway or develop a multiuse path along Judy Creek at the rear of a small number of private parcels to access land owned by the Powell County Industrial Authority. Approximately 0.45 miles. High cost estimate is \$118,000. Utilizing the existing sidewalk and improving it would cost approximately \$52,800 and be 0.2 miles in length.

Section 6: Industrial Park North

Beginning at or near the future Senior Citizens Center (funding awarded during this plan process) this section would be located along Judy Creek at the rear of the Reed Industrial Park. Approximately 0.35 miles. Estimated cost is \$92,400.

Section 7: Industrial Park South

The final section outlined in this plan would begin at Caudill Road and continue along Judy Creek until it is crossed by KY 213 near Allen Lane. This section of trail would pass along the rear boundary of the undeveloped industrial park immediately south of Caudill Road. There is a proposed subdivision on the east side of KY 213. In the future the trail could extend across KY 213 into this subdivision. Approximately 0.4 miles. Estimated cost is \$105,600.

City Park Connector

There could be a potential connector trail from Judy Creek along the rear of the Cox Street neighborhood and skirting common property lines to Halls Lane immediately adjacent to the baseball fields at the Stanton City Park. This would provide connection between the middle and high school complex, the city park, and the rest of the trail system. Approximately 0.25 miles. Estimated cost is \$66,000 not including a bridge over Judy Creek.

Total project cost estimate: \$950,800 not including bridges or trailheads for 3.25 miles of trail.

Conceptual Trail Corridors

There are other areas where potential multiuse trails could be developed. Most of the major stream valleys that feed the Red River are characterized by low density residential development along narrow paved roads with no existing pedestrian facilities and bordered entirely by private property.

Opportunities for trail corridors exist in undeveloped areas of the existing floodplains and across under- or non-utilized agricultural land and as part of future residential subdivisions. It is highly recommended that the county develop subdivision regulations which strongly encourage inclusion of trail easements and connectivity as part of the required development provisions.

Mountain Bike and Hiking Trails

Powell County's terrain is well suited for mountain bike and hiking trails. A well designed and maintained trail system can draw visitors from around the region and from out of state while providing health benefits to local residents.

Suitable parcels of land should include a mix of forest and open land with public access and be at least thirty to fifty acres in size depending on the usable terrain. A stacked trail design maximizes the use of land which does not have to be prime developable land to be suitable as a park for trails. The primary focus of any such recreational area should be on user experience with emphasis put on successfully managing user conflict areas.



IV. Plan Implementation

For this plan to be fully effective the next steps shall include:

4. **Adoption of the Plan.** In June 2015 the Final Draft Plan will be presented to the Powell County Fiscal Court, the Clay City City Council, and the Stanton City Council. Any requested Plan revisions will be presented in July of 2015 to the three elected bodies within the county. It is recommend to review this plan annually and updates should occur within five years (by May 2020) or as needed.
5. **Publication of the Plan.** After the plan is finalized by adoption it will be presented to the public in digital format. It is advisable that the plan be made available online for public download. Print copies will be provided to each elected body and any appointed bodies that have an interest in the plan, including but not limited to:
 - Powell County Fiscal Court
 - Clay City City Council
 - Stanton City Council
 - Powell County Health Department
 - Kentucky Transportation Cabinet District 10
 - Kentucky Transportation Cabinet Central Planning
 - Bluegrass Area Development District
 - Powell County Industrial Authority
 - Clay City Parks and Recreation
 - Stanton Parks and Recreation
 - Powell County Tourism Commission
 - Red River Chamber of Commerce
 - Powell County Trail Towns Committee

6. Creation of a Bicycle and Pedestrian Advisory Committee (BPAC).

It is advised that the elected bodies of Powell County authorize a Bicycle and Pedestrian Advisory Committee (BPAC) to review development proposals that affect the county and provide recommendations to said elected bodies as well as to other interested bodies and organizations. The BPAC should be made up of five (but no less than three) interested members that represent a broad spectrum of stakeholders within the county if possible, including but not limited to: people with mental and/or physical disabilities, minorities, those below poverty, those over 65 and those under 18, the school system, law enforcement, public health, Fire/EMS/SAR, citizen advocates, and other interests.

The BPAC should meet no less than four times a year and should identify goals and objectives to guide the committee within six months of formation.

7. Identify potential funding sources

Based on the type of facility, the need, and the timing the following funding sources may be relevant for proposed projects within the County:

- Recreational Trails Program
- International Mountain Bike Association grants
- Bell Helmets grant
- Safe Routes to School
- Land and Water Conservation grants
- Fish & Wildlife grants
- TIGER grants
- Local public and private funding

8. Project Development and Construction of Identified Priority Projects.

The corridors and projects described within this plan must be further developed before they can progress to construction and eventual enjoyment by the public. There are many processes that must be completed and in some cases the trail sections and recommended treatments may not be appropriate and other solutions must be found for furthering the vision of this Plan.

Additional public input and support is advised to guide the planning and development process outlined within this plan.

Acknowledgements

This plan was developed in cooperation with the Powell County Health Department, the Powell County Fiscal Court, Stanton City Council, Clay City City Council, the Kentucky Transportation Cabinet, and Bluegrass Area Development District.

Front cover design by Kelly Hobbs

All photos by Chris Chaney and Kelly Hobbs

Data Sources

http://bikeleague.org/sites/default/files/Attributes_of_BFC.pdf

Climate data: <http://www.usa.com/powell-county-ky-weather.htm>

American Community Survey:

<http://factfinder.census.gov/faces/nav/jsf/pages/searchresults.xhtml>

United Health Foundation's America's Health Rankings:

<http://www.americashealthrankings.org/KY>

County Health Rankings and Roadmaps Program:

<http://www.countyhealthrankings.org/app/kentucky/2015/rankings/powell/county/outcomes/overall/snapshot>

Kentucky State Police Collision Data Wizard

<http://crashinformationky.org/KCAP/KYOPS/SearchWizard.aspx>

Pedestrian and Bicycle Information Center:

http://www.pedbikeinfo.org/data/factsheet_general.cfm

Kentucky Transportation Cabinet: <http://transportation.ky.gov/bike-walk/>

Kentucky Bike Law Brochure <http://transportation.ky.gov/Bike-Walk/Documents/Bike%20Law%20Brochure.pdf>

Kentucky Bicycle and Bikeways Commission: <http://transportation.ky.gov/Bike-Walk/Pages/Kentucky-Bicycle-and-Bikeway-Commission.aspx>

Barriers to Cycling: <http://www.communitycyclingcenter.org/wp-content/uploads/2012/07/Understanding-Barriers-Final-Report.pdf>

CDC Report on Barriers to Walking:

<http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5132a1.htm>

<http://transportation.ky.gov/Highway-Design/Highway%20Design%20Manual/Intersections.pdf>

<http://mutcd.fhwa.dot.gov/pdfs/2009r1r2/mutcd09r1r2editionhl.pdf>

Applicable Kentucky Revised Statutes:

189.231 State maintained highways -- Restriction and regulation of traffic

<http://www.lrc.ky.gov/Statutes/statute.aspx?id=6338>

189.287 Bicycle safety regulations and standards

<http://www.lrc.ky.gov/statutes/statute.aspx?id=6363>

189.290 Operator of vehicle to drive carefully

<http://www.lrc.ky.gov/statutes/statute.aspx?id=6364>

189.340 Overtaking vehicles -- Traffic lanes -- Following vehicles

<http://www.lrc.ky.gov/statutes/statute.aspx?id=6375>

189.570 Pedestrians

<http://www.lrc.ky.gov/statutes/statute.aspx?id=6417>

<http://www.rtams.org/rtams/glossaryHome.jsp>

http://www.fhwa.dot.gov/environment/bicycle_pedestrian/publications/sidewalks/chap4a.cfm

<http://www.ada.gov/pcatoolkit/chap6toolkit.htm>

http://www.clrp.cornell.edu/nuggets_and_nibbles/articles/2013/accommodating.html

<http://www.fhwa.dot.gov/publications/research/safety/pedbike/05137/05137.pdf>

<http://mutcd.fhwa.dot.gov/htm/2009/part9/part9c.htm>

http://safety.fhwa.dot.gov/roadway_dept/pavement/rumble_strips/t504039/

<https://www.pdx.edu/ibpi/sites/www.pdx.edu.ibpi/files/BicycleBoulevardGuidebook%28optimized%29.pdf>

<https://www.imba.com/resources/trail-building/designing-and-building-sustainable-trails>

Pedestrian Projects

ID Number	Location	Description	Begin MP	End MP	Length	Width	Cost Estimate
P KY 0015 1.00	KY 15 in the Waltersville area	Sidewalks along both sides of KY 15	3.493	4.157	0.664	2x5'	\$70,100
P KY 0011 1.00	KY 11/15 through Clay City	Sidewalks along both sides of KY 11/15	19.32	20.971	1.651	2x5'	\$174,300
P KY 0011 2.00	Kenyon Stretch section of KY 11/15	Separate pedestrian facility north of KY 11/15	18.267	19.32	1.053	10'	\$111,200
P KY 0011 3.00	Turkey Knob section of KY 11/15	Separate pedestrian facility adjacent to KY 11/15	17.042	18.267	1.225	10'	\$129,400
P KY 0011 4.00	KY 11/15 Hatton Creek Road to Stanton Corp Limits	Separate pedestrian facility adjacent to KY 11/15	16.46	17.042	0.582	10'	\$61,450
P KY 0011 5.00	Stanton Corp limits to KY 11/15 & KY 213 intersection	Sidewalks along both sides of KY 11/15	15.638	16.46	0.822	2x5'	\$86,800
P KY 0011 6.00	KY 11/15 & KY 213 intersection to Stanton Corporate limits	Sidewalks along both sides of KY 11/15	14	15.638	1.638	2x5'	\$174,000
P KY 0011 1.50	Intersection of KY 11 & KY 15 at Waltersville	Improved pedestrian crossings including ped signals	4.152	4.162	0.01	std	\$10,000
P KY 0011 1.10	Intersection of KY 11 and CS-2008/CS-2014	Improved pedestrian crossings including ped signals	20.194	20.204	0.01	std	\$10,000
P KY 0011 5.10	Intersection of KY 11 and KY 2073 (Halls Ln)	Improved pedestrian crossings including ped signals	16.342	16.352	0.01	std	\$10,000
P KY 0011 5.20	Intersection of KY 11 and KY 2486 (Washington St)	Improved pedestrian crossings including ped signals	15.808	15.818	0.01	std	\$10,000
P KY 2073 1.00	KY 2073 in Stanton from KY 11/15 to Railroad Street	Improved sidewalks along the west side of Halls Lane	0	0.463	0.463	1x6'	\$61,100
P KY 2073 2.00	KY 2073 in Stanton from Railroad Street to KY 2026	Extension of sidewalk north of Railroad St on the west side of Halls Lane to Maple Street	0.463	0.619	0.156	1x6'	\$20,600
P KY 2026 1.00	KY 2026 in Stanton from KY 213 to Pearl Street	Construction of new sidewalks along Maple Street	3.042	4.202	1.16	1x6'	\$153,100
P KY 2487 1.00	Breckinridge Street in Stanton from Stanton Elem to Railroad Street on west side	Improve sidewalk along west side of Breckinridge St south of school	0.204	0.276	0.072	1x6'	\$9,500
P KY 2487 1.50	Intersection of Breckinridge Street and Bright Street	Improved pedestrian crossing at Stanton Elementary School	0.271	0.281	0.01	std	\$5,000
P KY 2487 2.50	Intersection of Breckinridge Street and Lion Street	Improved pedestrian crossing at Stanton Elementary School	0.331	0.341	0.01	std	\$5,000
P KY 2487 2.00	Breckinridge Street in Stanton from Stanton Elem to KY 2026 on west side	Construct new sidewalks along west side of Breckinridge St north of school	0.276	0.496	0.22	1x6'	\$29,000

Bicycle Projects

ID Number	Location	Description	Begin MP	End MP	Length	Width	Cost Estimate
B KY 0015 1.00	Waltersville	Bike lanes along KY 11/15	3.493	4.157	0.664	2X4'	\$6,600
B KY 0011 1.00	Clay City	Bike lanes along KY 11/15	19.32	20.971	1.651	2X4'	\$16,500
B KY 0011 2.00	Kennon Stretch	Wide shoulders along KY 11/15	18.267	19.32	1.053	2X4'	n/a
B KY 0011 3.00	Turkey Knob	Wide shoulders along KY 11/15	17.042	18.267	1.225	2X4'	n/a
B KY 0011 4.00	Hatton Creek to Stanton city limits	Wide shoulders along KY 11/15	16.46	17.042	0.582	2X4'	n/a
B KY 0011 5.00	Stanton city limits to KY 213	Bike lanes along KY 11/15	15.638	16.46	0.822	2X4'	\$8,200
B KY 0011 6.00	KY 213 to Stanton CL	Bike lanes along KY 11/15	14	15.638	1.638	2X4'	\$16,400
B KY 0213 1.00	Sons Ln to Mountain Parkway	Bike lanes along KY 213	6.371	7.23	0.859	2X4'	\$8,600
B KY 0213 2.00	Mountain Parkway to KY 11/15	Bike lanes along KY 213	7.23	7.595	0.365	2X4'	\$3,650
B KY 0213 3.00	KY 11/15 to Red River	Bike lanes along KY 213	7.595	8.826	1.231	2X4'	\$12,300
B KY 0213 4.00	Red River to Montgomery County line	Wide shoulders along KY 213	8.826	12.076	3.25	2X4'	n/a
B KY 0011 7.00	Stanton city limits to KY 1184	Wide shoulders along KY 11/15	12.909	14	1.091	2X4'	n/a
B KY 0015 2.00	Clark County line to Waltersville	Wide shoulders along KY 15	4.061	8.871	4.81	2X4'	n/a
B KY 0082 1.00	Estill County line to Waltersville	Wide shoulders along KY 82	0	2.058	2.058	2X4'	n/a
B KY 0213 5.00	KY 213 on Furnace Mountain	Shoulders along the initial steep climb south of Stanton	5.565	6.465	0.9	2X4'	n/a
B XX XXXX 1.00	Countywide	During any resurfacing roads with rumble strips should include bicycle gaps countywide			0		n/a

Proposed Trail Corridors

ID Number	Location	Description	Begin MP	End MP	Length	Width	Cost Estimate
M OR 0100 1.00	Red River Trail Section 1: West Bend	Multiuse path generally follows the Kentucky Union Railroad in NE Powell County to Waltersville	0	4.5	4.5	10	\$1,188,000
M OR 0100 2.00	Red River Trail Section 2: Waltersville	Multiuse path along Brush Creek or combination of sidewalks and bike lanes along KY 15	4.5	5	0.5	10	\$132,000
M OR 0100 3.00	Red River Trail Section 3: Clay City	Multiuse path through or around Clay City to KY 1057	5	6	1	10	\$264,000
M OR 0100 4.00	Red River Trail Section 4: Clay City East	Multiuse path from KY 1057 to Red River at the end of Woody Ware Lane	6	8	2	10	\$528,000
M OR 0100 5.00	Red River Trail Section 5: Stanton West	Multiuse path from Red River to and along Railroad Street ending at KY 213 in Stanton	8	9.8	1.8	10	\$475,200
M OR 0100 6.00	Red River Trail Section 6: Stanton East	Combination of multiuse paths and street routes from KY 213 through Airport subdivision	9.8	10.8	1	10	\$264,000
M OR 0100 7.00	Red River Trail Section 7: Mountain View	Multiuse path from Airport subdivision to Rosslyn	10.8	12.3	1.5	10	\$396,000
M OR 0100 8.00	Red River Trail Section 8: Rosslyn to Bowen	Multiuse path generally following rail alignment, Red River, or Mountain Parkway	12.3	15.1	2.8	10	\$739,200
M OR 0100 9.00	Red River Trail Section 9: Bowen to Nada	Multiuse path generally following rail alignment, Red River, or Mountain Parkway	15.1	18.85	3.75	10	\$990,000
M OR 0100 10.00	Red River Trail Section 10: Nada to Slade	Multiuse path along Middle Fork of Red River between the Mountain Parkway and KY 11/15	18.85	20.35	1.5	10	\$396,000
M OR 0100 11.00	Red River Trail Section 11: Slade to Natural Bridge	Multiuse path generally following KY 11 and Middle Fork of Red River to state park	20.35	22.45	2.1	10	\$554,400
M OR 0100 12.00	Red River Trail Section 12: Natural Bridge	Multiuse path through state park to Wolfe County line	22.45	23.45	1	10	\$264,000
M OR 0200 1.00	Riverwalk Section 1: Northern Loop	Multiuse path generally following Red River north of KY 11/15	3	5	2	10	\$528,000
M OR 0200 2.00	Riverwalk Section 2: Southern Loop	Multiuse path generally following Red River south of KY 11/15	1.5	3	1.5	10	\$396,000
M OR 0205 3.00	Riverwalk Section 3: Pompeii Connector	Multiuse path to connect city park to KY 2026 near Red River Bridge	5	5.35	0.35	10	\$92,400
M OR 0210 4.00	Riverwalk Section 4: Adams Ridge Connector	Multiuse path to connect Clay City to residential area on Adams Ridge	0	0.65	0.65	10	\$171,600
M CS 2008 1.00	Riverwalk Connector	On street improvements to connect proposed river access points via Seventh St and Veterans Ln	0	0.2	0.2	10	\$52,800

Proposed Trail Corridors

ID Number	Location	Description	Begin MP	End MP	Length	Width	Cost Estimate
M OR 0300 1.00	Judy Creek Trail Section 1: Mouth to Maple Street	Multiuse path along Judy Creek from its mouth to KY 2026	2.25	3.1	0.85	10	\$224,400
M OR 0300 2.00	Judy Creek Trail Section 2: Maple Street to Railroad Street	Multiuse path along Judy Creek from KY 2026 to Maple Street	1.95	2.25	0.3	10	\$79,200
M OR 0300 3.00	Judy Creek Trail Section 3: Railroad Street to W College Ave	Multiuse path along Judy Creek from Railroad St to KY 11/15	1.55	1.95	0.4	10	\$105,600
M OR 0300 4.00	Judy Creek Trail Section 4: W College Ave to Steamshovel Hill Rd	Multiuse path along Judy Creek from KY 11/15 to Steamshovel Hill Rd	1.25	1.55	0.3	10	\$79,200
M OR 0300 5.00	Judy Creek Trail Section 5: Mountain Parkway Bypass	On street connection and sidewalks from Steamshovel Hill Rd to new Senior Citizens Center on KY 213	0.75	1.25	0.5	10	\$92,800
M OR 0300 6.00	Judy Creek Trail Section 6: Industrial Park North	Multiuse path from Senior Citizens Center around Reed Industrial Park to Caudill Rd	0.4	0.75	0.35	10	\$92,400
M OR 0300 7.00	Judy Creek Trail Section 1: Mouth to Maple Street	Multiuse path along Judy Creek from Caudill Rd to KY 213	0	0.4	0.4	10	\$105,600
M OR 0305 8.00	Judy Creek Trail: City Park Connector	From Section 3 to Halls Lane near Stanton City Park	0	0.25	0.25	10	\$66,000
M OR 0310 6.50	Judy Creek Trail Connector	From Section 6 along Caudill Rd to KY 213	0	0.2	0.2	10	\$52,800
M OR 0315 7.50	Judy Creek Trail Connector	From Section 7 along Industrial Park boundary to KY 213	0	0.2	0.2	10	\$52,800
M OR 0400 1.00	Paint Creek Trail	Conceptual trail to connect Paint Creek Rd to Maple Street along Red River	0	0.6	0.6	10	\$158,400
M OR 0400 2.00	Paint Creek Trail	Conceptual trail along Maple Street to Pearl Street	0.6	1.35	0.75	10	\$198,000
M OR 0500 1.00	Hatton Creek Trail	Conceptual trail to connect Steamshovel Hill Rd at Hatton Creek to KY 11/15	2.5	3	0.5	10	\$132,000
M OR 0600 1.00	Morris Creek Trail	Conceptual trail generally paralleling Morris Creek	0	2.4	2.4	10	\$633,600
M OR 0700 1.00	Boone Creek Trail	Conceptual trail to connect Boone Creek area to KY 213	0	0.7	0.7	10	\$184,800
M OR 0800 1.00	Cat Creek Trail	Conceptual trail along Cat Creek to connect to Red River Trail near Rosslyn	0	2.25	2.25	10	\$594,000
M OR 0900 1.00	South Fork Trail	Conceptual trail along South Fork to connect to Red River Trail	0	2.4	2.4	10	\$633,600

Table explanation

ID Number:

P KY 0015 1.00

P = type of project. P designates a pedestrian project, B is for a bicycle project, and M is for Multiuse Path

KY = Adjacent road type. KY is a Kentucky highway, CS is for a county road or city street, and OR is for off-road projects.

0015 = Road or trail number. In this case 0015 indicates the project is along Kentucky highway 15. Each roadway in the county has a one to four number route designation. Proposed trails within the county were given numbers beginning with 100. A proposed Powell County multiuse path ID number would look like this: M OR 0100 1.00

1.00 = Project number. For each roadway or trail project a project number is used to designate it from other segments of the trail corridor or roadway.

Begin/End MP

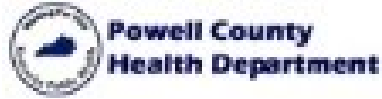
Milepoints reflect KYTC milepoints as indicated in the HIS Official Milepoint Route Log (http://apps.transportation.ky.gov/DMI_Reports/Official_MP_RL_Report1.aspx?param=POWELL). Where a proposed bicycle or pedestrian facility is not adjacent to a public roadway a milepoint based on a general proposed alignment has been estimated.

Cost Estimates

Cost estimates for multiuse paths proposed within this plan were calculated at \$50/mile for a ten foot wide asphalt surface path. Construction costs can and will vary depending on location, topography, and ancillary facilities such as trailheads, trash receptacles, landscaping, signage, and benches.

Estimates for sidewalks, crosswalks, and other facilities were roughly based on the same figure and various regional sources.

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