



National Road Heritage Trail Development Guide Statewide



March 2006

produced in cooperation with
the Indiana Office of Tourism Development through
the Lt. Governor's Quality of Place Initiative and NRHT, Inc.



PRODUCED IN COOPERATION WITH THE INDIANA OFFICE OF TOURISM DEVELOPMENT THROUGH THE LT. GOVERNOR'S QUALITY OF PLACE INITIATIVE

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Efroymsen Fund – A Central Indiana Community Foundation Fund
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Indiana Trails Fund, Inc.
Rose-Hulman Institute of Technology
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Acknowledgments





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The proposed route of the NRHT is envisioned to cross eight Indiana counties.
Source: Storrow Kinsella Associates Inc

PROJECT OVERVIEW

Focus of the Study

This Development Guide presents a macro scale look at issues associated with the proposed **National Road Heritage Trail (NRHT)** from west to east across Indiana. It assembles and organizes thoughts and visions about a cross-state trail into tangible results and manageable tasks. The Development Guide is an important first step in the long process of developing a cross-state multi-use trail— that roughly follows the Historic National Road.

In short, this Development Guide has been constructed as a ‘user-friendly’ handbook to:

- Present a vision for a 150-mile long trail
- Describe physical characteristics along the proposed trail corridor
- Define challenges and opportunities for developing the trail corridor
- Present conceptual ideas for addressing physical challenges, and
- Provide communities along the NRHT corridor with strategies for developing trail segments.

This document is not intended to present a final trail design. Rather, information contained in this document is intended to guide various communities located along the proposed trail route in efforts to determine how they may best conduct their own final trail design and implementation.

The idea of creating a multi-use pedestrian/bicycle/horseback-riding trail that would cross Indiana has been a topic of discussion for a number of years. Recently, interest in such a trail project has been gaining momentum. Elected officials and policy makers have been taking notice of the public support trails are generating and have begun to contemplate the benefits of such a cross-state trail.

While planning for the cross-state NRHT is currently in the early stages, some Indiana communities have already taken bold steps to develop their own local trail projects – including constructing trails that could be used as segments of the larger NRHT proposed cross-state corridor. As interest in a cross-state trail grows, many believe the time is appropriate for moving forward to evaluate the benefits and feasibility of a coordinated project.

Preliminary discussions for a cross-state trail have led knowledgeable trail users and bicycle enthusiasts to believe a viable west to east trail across Indiana can be developed primarily by utilizing the alignment of several former railroad corridors. The consensus among those who have invested time to conduct preliminary research and observation of the envisioned corridor, is the width of former railroad corridors and the proposed trail’s efficient west to east alignment make it

suitable for development as a future multi-use trail. There is concern however, that if action is not taken soon to protect the assets and character of the proposed route, then key sections may be converted locally in a manner detrimental to trail development. This could have a negative impact on the quality and likelihood of a fully developed NRHT.

Components of the Development Guide

The NRHT Development Guide contains information about the potential trail alignment, routing alternatives, the location of trail access points, constraints and opportunities impacting trail development and the establishment of a NRHT signage and identity system.

Information has also been assembled on trail design guidelines and steps needed to make a multi-use, cross-state trail safe and available to the public.

The Development Guide has been organized into nine binders, each containing a separate section of the overall document. With this approach, the document begins by focusing attention on the overall trail vision, project goals and state-wide trail issues. A separate binder has been prepared for each of the eight Indiana NRHT counties. The county binders are intended to provide local communities with information they can use to implement the trail in their area.

Binder 1 (Statewide)

- Introduction
- Trail Planning
- Planning Tools
- Recommendations/Conclusions
- Executive Summaries

Binders 2-9 (One for each county)

- County Overview
- Proposed NRHT Alignment
- Detail Description of Alignment
- Design Recommendations/ Maps
- Property Ownership Information

Project Process

The start of the NRHT Development Guide began in early 2005. A methodical approach was used to identify the vision for the trail, gather information about the trail, prepare maps showing potential trail alignment and to prepare design guidelines and concepts. The approach involved the collaborative effort of a number of people and organizations. The consulting team—Storrow Kinsella and Associates was responsible for information gathering and synthesis, conceptual trail design, map preparation and writing/assembly of the Development Guide.

Project Approach

The following is a brief overview of the approach used to prepare the NRHT Development Guide.

Meetings

An important component used in the process to prepare the Development Guide was the dialogue that took place between the consulting team and the NRHT, Inc. Steering Committee. Members of the committee participated by discussing information collected for the trail, reviewing maps that had been prepared and providing guidance on the document development. The committee's input was essential for shaping not only the document, but the trail vision.

Field Observations

The consulting team conducted field observations in each of the eight NRHT counties during the spring of 2005 to better understand the physical conditions along the proposed NRHT corridor. The observations were conducted to visually assess existing conditions, identify potential opportunities and constraints and evaluate issues that may impact the development of the trail.

Data Collection/Map Preparation

The consulting team prepared maps showing the trail alignment by formatting USGS maps at scale of 1" = 1000' for the entire proposed NRHT corridor. Maps for each of the eight counties were prepared on 11" x 17" sheets and arranged by county from west to east.

A windshield survey was conducted for each county during the period from April 4, 2005 to May 3, 2005. The consulting team spent one day in each county, accompanied by a local contact to observe the proposed NRHT corridor and to see its physical characteristics first hand. The on-site observation was key for the team and promoted discussion on issues affecting trail development. Field observations were recorded by hand on 11" x 17" maps. Later, field notes along with the preliminary proposed alignment were formatted into a series of formal maps – organized and arranged by each NRHT county.

(Note -The final version of the maps can be found in the individual county binders contained in this Development Guide).

After the draft preliminary maps were completed several weeks later, a return trip to each county was conducted. This time the team and local contact reviewed the preliminary draft maps, confirmed observations and continued discussion about the proposed NRHT in that county.

Document Preparation

After the preliminary trail alignment had been documented on the maps and reviewed with the Steering Committee, the

Development Guide text was prepared. Text was written and organized to support and clarify the trail alignment represented on the maps.

OVERALL ROUTE

General Alignment

The grand vision for creating the NRHT began with an idea to establish a multi-use trail that would travel across Indiana from Illinois to Ohio. It was envisioned that this special trail would be enjoyed by the public and be available for those who like to participate in a variety of self-directed recreational activities such as walking, riding bicycles or horseback riding.

For much of its length across Indiana, the proposed NRHT alignment will utilize former railroad corridors. This includes the former Pennsylvania Railroad corridor (also known as the Vandalia Railroad) in the western half of the state (between Terre Haute and Indianapolis) and the former Pennsylvania Railroad corridor in the eastern half of the state (between Indianapolis and Richmond) known as the Pennsy.

Former railroad corridors are often ideal for converting into trail corridors because of their consistent width, grade, alignment and surface conditions. Also remaining bridges and structures constructed by the railroad for crossing streams, rivers and streets are often suitable for converting to pedestrian, bicycle and horseback riding use. In situations for the proposed NRHT where a railroad bridge over a road has been removed, accommodations need to be made to safely allow trail users the ability to cross from one side to the other. This may be accomplished by either replacing the bridge, or perhaps providing a means for trail users to safely make an at grade crossing of the road below.

Sometimes the former rail corridor has been compromised by construction or other activities that may impede the development of the trail. When those activities make it necessary for the final NRHT alignment to deviate from the former railroad corridor, then options to consider include:

- Using available adjacent land
- Using other nearby greenway trails that connect with the NRHT
- Using undeveloped land paralleling a nearby road
- Using land along a creek or river, and
- If absolutely necessary, using a short stretch of dedicated bike/pedestrian lane on a low-traffic volume street in a town.

The following is a general overview of the proposed NRHT alignment as it moves from west to east across the state.

Illinois—Indiana state line east across the Wabash River

The westernmost portion of the proposed NRHT follows along the alignment of the National Road from Illinois to West Terre Haute and across the Wabash River.

National Road Heritage Trail—Terre Haute

Several years ago, local initiatives created a trail system in

“Popular multi-use trails in Terre Haute, Greencastle, Plainfield, and Greenfield inspired this NRHT initiative in late 2003 and early 2004. Pennsy Trail plans in Indianapolis and Cumberland provided additional motivation, as did promotion of the idea of countywide greenways networks by Hendricks County parks groups and Henry County health groups.”

Source—NRHT web-site

Terre Haute. It utilizes the former Pennsylvania Railroad corridor supplemented by connections to the Indiana State University Campus, and downtown, using a short dedicated bike lane and trail. The trail has been called the National Road Heritage Trail since its inception. The existing paved trail currently ends at the Twiggs Rest Area, which connects it physically and culturally to the Historic National Road. For more detailed information about the Terre Haute NRHT, contact:

Pat Goodwin
City Engineer
City of Terre Haute
Department of Engineering
City Hall Room 200
17 Harding Avenue
Terre Haute, IN 47807
812-232-2727

Eastern Vigo County to Greencastle

The former Pennsylvania railroad corridor is proposed to serve as the trail corridor as it travels primarily across rural areas in western Indiana, with occasional passages through developed areas such as found in the City of Brazil. Once the trail enters Putnam County and moves east past the Town of Reelsville, the proposed trail experiences its greatest physical separation, distance-wise from the National Road/U.S. 40 corridor. The corridor also travels through wooded and remote portions of its alignment as it approaches the City of Greencastle from the southwest.

People Pathways

Through the City of Greencastle to eastern Putnam County, the proposed NRHT will use the local trail system that the local not-for-profit group, People Pathways has been planning and developing in collaboration with the City of Greencastle. The Greencastle trail system began with the formation of People Pathways in 1997. People Pathways' goal is to help residents of Greencastle and Putnam County improve their quality of life by developing a trail system for multi-recreational use and alternative transportation. The portion of the People Pathways trail system that will serve as the NRHT follows the former Pennsylvania Railroad and will be known as the "Campus Link Trail". A Transportation Enhancement (TE) Grant was awarded to the City of Greencastle in December 2003 to facilitate the construction of this project. The longest completed trail segment in the People Pathways system is a crushed stone trail from the eastside of Greencastle to the Town of Fillmore, approximately 4 miles. For more detailed information about People Pathways, contact:

People Pathways
152 E. County Road 300 S.

Greencastle, IN 46135
765-653-6178

The Vandalia Trail

Continuing to follow the former Pennsylvania Railroad corridor, the Vandalia Trail project is underway to connect People Pathways with the Hendricks County towns of Coatesville and Amo. This portion is proposed to accommodate horseback riding along with pedestrians and bicyclists. Part of this 8-mile section is currently open as a rustic trail. For more detailed information contact:

NRHT, Inc.
P.O. Box 402
Indianapolis, IN 46206-0402

Vandalia Rail-Trail

Plainfield's paved Vandalia Rail-Trail, will return the NRHT to the Historic National Road. For more detailed information about the Vandalia Rail-Trail in Plainfield, contact:

Rich Carlucci
Town Manager
Town of Plainfield
206 West Main Street
Plainfield, IN 46168
317-839-2561

Indy Greenways

The Indy Greenways system is an extensive network of existing and planned trails across Marion County and Indianapolis. Former and existing railroad corridors provide the proposed NRHT route across the western and eastern thirds of Marion County. Existing and planned trails along stream corridors provide the proposed NRHT route across the center of the city connecting with the heart of downtown Indianapolis. These Indy Greenways components include:

- Vandalia Rail-Trail (proposed)
- Eagle Creek Trail (existing and planned)
- White River Trail (planned)
- Pleasant Run Trail (existing)
- Pennsy Trail (planned)

For more detailed information about Indy Greenways, contact:

Indy Greenways
The Depot
900 East 64th Street
Indianapolis, IN 46220
317-327-7431

The Pennsy Trail

The Pennsy Trail is planned to follow the former Pennsylvania Railroad corridor from eastern Marion County through Greenfield in Hancock County. The Town of Cumberland has



Indy Greenways trails and greenways. Source: Greenways Foundation

been active in the planning and design for the Pennsy Trail in its community and the City of Greenfield has created its popular paved 3-mile segment of the Pennsy Trail.

The Pennsy Trail corridor runs in close proximity to the National Road for much of its length both in Marion County and Hancock County. For more detailed information about the Cumberland Pennsy Trail, contact:

Jeff Sheridan
Town Manager
Town of Cumberland
Municipal Building
11501 East Washington Street
P.O. Box 29155
Cumberland, IN 46229

For more detailed information about the Greenfield Pennsy Trail, contact:

Tracy Doyle
Director
Greenfield Parks and Recreation Department
98 East North Street
Greenfield, IN 46160
317-477-4340

NRHT in Henry County

The proposed NRHT will utilize the former Pennsylvania Railroad corridor for a number of miles to the east, after the end of the current Greenfield Pennsy Trail. The proposed trail makes most of its run traveling through rural/agricultural areas, while connecting a number of National Road communities leading up to the western side of Richmond. In this area of the state the proposed NRHT travels parallel to the National Road/ U.S. 40 allowing travelers on the National Road to easily view the trail.

The not-for-profit group Healthy Communities of Henry County has been very active for several years working to acquire a key 10-miles of this corridor between Knightstown and Lewisville. A Transportation Enhancement (TE) grant awarded in 2004 will facilitate that process.

For more detailed information about the NRHT in Henry County, contact:

Healthy Communities of Henry County
2700 Lakeview Drive
New Castle, IN 47362
765-987-8783



Historic National Road, Source: Indiana National Road Association

Richmond east to the Indiana—Ohio State Line

The final segment of the proposed NRHT travels through Richmond on a combination of former rail and shared road. The trail alignment will have to develop a creative approach to the physical challenges that the City of Richmond presents. For more information about the NRHT in Wayne County, contact:

City of Richmond Parks and Recreation
50 North 5th Street
Richmond, IN 47374
765-983-7276

Much of the information contained in the following Development Guide addresses the proposed alignment of the NRHT. Alignment issues impact important trail considerations such as public accessibility, user safety, implementation costs and development schedules.

Relationship with the Historic National Road.

A major influence on the proposed cross-state NRHT will be the **Historic National Road**, most of which follows U.S. 40. Holding the important distinction of being an ‘All American Road’ within the National Scenic Byways system, the Historic National Road has been called “The road that built the nation.”

The close proximity between the National Road and the proposed NRHT corridor not only provides the basis for the trail’s name, but the National Road’s history, culture and character is expected to draw tourists and trail users to the NRHT and have a positive impact on their visitor experience.

The association between the National Road and the proposed NRHT is expected to be mutually beneficial. Each corridor can recognize and respect the significance of the adjacent corridor by providing signs and interpretive markers that describe the location and importance of its neighbor. Physical links and connections between the two corridors should also be developed to encourage people to visit the other.

Trail Statistics

The proposed NRHT corridor measures at a length of 155 miles from border to border across eight Indiana counties. Over its run, the trail will traverse a number of political jurisdictions (state, county, township, city/town/village) and will be in direct contact with 30 separate communities.

The proposed NRHT corridor will pass through eight separate Indiana counties. The following (from west to east) are the counties in which the trail project will be located.

- Vigo
- Clay
- Putnam
- Hendricks
- Marion
- Hancock
- Henry
- Wayne

The proposed NRHT alignment will take it in close proximity to a substantial percentage of Indiana’s residents. According to



The proposed route of the NRHT is envisioned to cross eight Indiana counties. Source: Storrow Kinsella Associates Inc

- A. Vigo
- B. Clay
- C. Putnam
- D. Hendricks
- E. Marion
- F. Hancock
- G. Henry
- H. Wayne

County	Number of miles of existing trail (NRHT system)	Number of miles of proposed trail (NRHT system)	Total number of miles of NRHT (Existing plus proposed)
Vigo	7.02	10.91	17.93
Clay	0.00	12.97	12.97
Putnam	2.71	20.55	23.26
Hendricks	4.5	14.37	18.87
Marion	7.23	15.25	22.48
Hancock	2.66	16.32	18.98
Henry*	0.00	20.34	20.34
Wayne	0.00	21.07	21.07
Total	20.39	135.51	155.90

*Note: The proposed Henry County alignment includes a short section of trail in northwestern Rush County
Table illustrating existing and proposed trails per county,
Source: Storrow Kinsella Associates Inc

County	2000 Population
Vigo	105,848
Clay	26,556
Putnam	36,019
Hendricks	104,093
Marion	860,454
Hancock	55,391
Henry	48,508
Wayne	71,097
Total	1,307,966
Indiana Total	6,080,485

Table illustrating County Population , Source: U.S. Census Bureau

2000 census figures, 1.3 million Hoosiers reside in the eight counties in which the NRHT will be located. The combined population of the eight NRHT counties accounts for 21.5% of Indiana's 2000 total population of 6,080,485.

The public will be afforded a number of opportunities for trail ingress/egress. Currently, there are nine trailheads (access points) for the existing trail segments that have already been developed (outside Marion County). The Development Guide shows the potential location of other trailheads (46) for the remaining portions of the trail that have yet to be developed.

PROJECT BACKGROUND

Contributors in Planning and Visioning

Many trail projects across the United States have come to fruition because passionate and committed individuals and organizations have invested their personal time and resources to develop trail systems. Grass-root level efforts have often spurred government agencies to take action, resulting in the planning, design and/or construction of new trail projects.

The idea for a cross-state trail in Indiana, and in particular the proposed NRHT, developed because a number of interested Indiana trail enthusiasts and non-profit trail groups witnessed the accomplishments other states achieved with their cross-state trail corridors. The success stories from those states include the Ohio-to-Erie Trail (Ohio), the Grand Illinois Trail (Illinois), the Katy Trail (Missouri) and the Cowboy Trail (Nebraska).

While this project is bounded by the Indiana state line on the west and east, the NRHT has the potential for becoming a component of a regional trail network. At the Mid-America Trails and Greenways Conference in 2003, this corridor's potential was highlighted as a main east-west connector for the region. It is believed Indiana's efforts to establish a cross-state NRHT corridor, could encourage the adjoining states of Ohio and Illinois to collaborate on a connected interstate greenways system.

Individuals and groups from various Indiana communities have undertaken local initiatives to develop trail systems. Often in these situations, a not-for-profit organization has been formed to promote local trail efforts. The hard work and successful results of these various groups also added to the hope that a cross-state trail could actually be accomplished.

National Road Heritage Trail, Incorporated

As the idea for a cross-state trail grew and people became more interested, a not-for-profit group, **National Road Heritage Trail, Inc.** was established. Incorporated in 2004, the organization is a volunteer, not-for-profit group formed to function primarily as a steering group. The group's officers

intend to use Indiana Trails Fund, Inc. and various local not-for-profit trails groups to earmark and disburse resources for the NRHT.

Partners in Planning

Further interest and support for the cross-state trail continues to grow as communities see the benefit of being connected with the trail. As of the published date of this document, NRHT, Inc. has received endorsements for the trail from as many as 70 organizations and officials.

Statewide Partners & Out-of State Organizations

- Hoosier Rails-to-Trails Council
- Indiana Office of Tourism Development
- Indiana Department of Natural Resources
- Indiana Department of Transportation
 - Bicycle, Pedestrian and Byway Program
- Indiana National Road Association
- Indiana Trails Fund
- Indiana Horse Council
- Indiana Trail Riders Association
- Indiana Governor’s Council for Physical Fitness and Sports
- Clark County Trails Coalition (Illinois)
- National Road Association of Illinois
- National Road Alliance (6-states)

Vigo County

- Art Spaces: Wabash Valley Outdoor Sculpture Collection
- Mayor of Terre Haute
- National Road Bicycle Club
- Vigo County Board of County Commissioners
- Vigo County Health Department
- Vigo County Parks Department
- Wabash Valley Community Foundation
- West Central Indiana Economic Development District
- Terre Haute Parks Department

Clay County

- Brazil Common Council (city council)
- Brazil Parks Board
- Clay County Board of County Commissioners
- Clay Community Parks Association
- Harmony Town Council

Putnam County

- Fillmore Town Council
- Greencastle Board of Park Commissioners
- Greencastle Common Council (city council)
- People Pathways
- Putnam County Board of County Commissioners

Central Indiana

- Greenways Foundation
- Efroymson Fund— A CICF Fund
- Central Indiana Bicycling Association (CIBA) Foundation
- Indianapolis Metropolitan Planning Organization
- Central Indiana Community Foundation

NRHT’s stated mission is to:

- *“Develop and support a multi-use, off-road trail for non-motorized travel from Terre Haute to Richmond along or connected to the abandoned Pennsylvania/Vandalia rail corridor, the electric interurban corridor and/or the National Road*
- *Facilitate public-private partnerships*
- *Promote recreational and historical tourism and special events along the greenways and related green space of counties along the National Road Corridor.”*

Source—NRHT web-site

Hendricks County

- Hendricks County Board of County Commissioners
- Hendricks County Trail Development Association
- Hendricks County Heritage Alliance
- B&O Trail Association (Formerly RCDI)
- Coatesville Town Council
- Amo—Coatesville Sewer Conservancy District
- Amo Town Council
- Clayton Town Council
- Plainfield Town Council

Marion County

- Indianapolis Greenways Development Committee
- 40 West Professional and Business Club (Wayne Township)
- Irvington Community Council
- Cumberland Town Council
- Indianapolis Foundation

Hancock County

- Hancock County Board of Commissioners per note below (Assuming State Government develops and maintains NRHT)
- Cumberland Town Council (Also in Marion County)
- Greenfield Parks and Recreation
- State Senator Gard
- Hancock Regional Hospital Board of Trustees

Henry County

- New Castle/Henry County Chamber of Commerce
- New Castle/Henry County Economic Development Corporation
- Henry County Board of County Commissioners
- Henry County Convention & Visitors Bureau
- Healthy Communities of Henry County
- State Representative Saunders
- Knightstown Town Council
- Make a Difference Knightstown, Inc.
- Dunreith Town Council
- South Henry Regional Waste District
- Lewisville Town Council
- Straughn Town Board

Wayne County

- Dublin Town Council
- Cambridge City Town Council
- Centerville Town Council
- Richmond Parks and Recreation

Contributors in Funding this Study**Quality of Place Initiative - QPI**

In 2004, the Indiana Department of Commerce, Office of Tourism and Film Development awarded a number of grants as part of the Lt. Governor's Quality of Place Initiative to enhance Indiana's tourism potential.

In awarding a \$75,000 grant for the NRHT feasibility study and blueprint development, the Department recognized that trails

are an important part of the state's economic growth and development.

This primary sponsor is now called the Indiana Office of Tourism Development.

Local Matches

In addition, a number of local and regional partners agreed with this vision and provided much needed matching funds to complete the \$100,000 project. These included:

- Efroymsen Fund – A Central Indiana Community Foundation Fund (\$5,000)
- Greenways Foundation (\$5,000)
- Wabash Valley Community Foundation – Vigo County (\$2,000)
- Central Indiana Bicycling Association Foundation (\$2,000)
- Private donation (\$11,000)

Fast Facts: Economic Benefits of Trails

National

Number of visitors annually to the 22-mile Mineral Wells to Weatherford Rail Trail near Dallas, Texas: **300,000**

Local revenues generated by those visits: **\$2 million**

Reported increase in local sales tax receipts following the opening of the 11-mile Mineral Belt Trail in Leadville, Colorado: **19 percent**

Economic impact of the Great Allegheny Passage rail trail in 1998, when the central Pennsylvania trail was only half complete: **\$14 million**

Annual visits to Little Miami Scenic Trail, which spans four Ohio counties: **15,000**

Average spending by each of those 15,000 visitors for food, beverages, and transportation: **\$13.54**

Estimated number of new jobs created after the mile-long Mispillion River Greenway created convenient pedestrian access to downtown Millford, Delaware: **250**

Rank, behind highway access, of jogging and bike trails among 18 community amenities cited as reasons for buying a home in a 2002 study of recent home buyers: **2**

Average difference in selling price of home lots on the Mountain Bay Trail in Brown County, Wisconsin, over similar lots not on the trail: **9 percent**

Amount developers added to the price of new homes because they were on a greenway in Apex, North Carolina: **\$5,000**

Sources: "Land & People" (Fall 2005), a publication of The Trust for Public Land, various sources collected in "Economic Benefits of Trails and Greenways" (2003), the Trails and Greenways Clearinghouse of the Rails-to-Trails Conservancy, www.trailsandgreenways.org

Local

Proximity of homes to the Monon Trail in Indianapolis has been shown to have positive, significant effects on property values

"In our landlocked state, the scenic views and recreational fun provided by this and other greenways make homes near or on the Monon Trail, and to a lesser extent other trail systems, hot commodities." - Quote from article in *StarHomes*

Source: *StarHomes* (March 7, 2004), a publication of *The Indianapolis Star*

BENEFITS OF EFFECTIVE TRAIL PLANNING

The cross-state NRHT holds great promise for Indiana residents and visitors to the Hoosier state. If the NRHT is to be successful and adequately serve a significant portion of Indiana's population, then careful thought and planning need to be applied to a full range of trail issues. This step helps identify challenges so that strategies can be developed to capitalize on opportunities and overcome obstacles.

The NRHT planning process goes beyond just the creation of a vision and expression for the cross-state trail's potential. It also includes understanding benefits that may be derived from implementing the trail. It is realistic to expect the full implementation of the NRHT will be a major undertaking across Indiana – requiring a serious and dedicated commitment of time and resources. However, when the proposed NRHT is completed, it is envisioned the trail will be an important asset to the state. The trail will help enhance the quality of life for many Indiana residents and provide for their long-term recreation, exercise, and alternative transportation needs.

The following section presents various ways the public may benefit from the effective planning of the NRHT.

Tourism

One of the key reasons for developing the NRHT is the role the trail will play in Indiana's effort to promote tourism. It is easy to understand the connection between the NRHT and tourism when looking at the facts associated with the trail. The 150-mile corridor will run from Illinois to Ohio across 8 Indiana counties, will link 30 Indiana communities, will be in proximity to a significant percentage of Indiana's residential population, will pass through or near rural and scenic Hoosier country-side and will be in proximity to a number of sites of cultural/historic importance.

The NRHT will cater to a diverse group of people who are looking for ways to spend their personal time. These groups include distance cyclists, families on vacations, adventurers, naturalists, and other tourism-focused groups.

The NRHT will encourage visitors to the state as well as residents alike to see first-hand the culture and history of Central Indiana. In using the NRHT, visitors and tourists will spend money on food and beverages, hotel rooms, gifts and souvenirs as well as other services.

Tourists will also be able to utilize the NRHT for their transportation needs, reducing the dependence upon vehicular transportation.

Positive Economic Impact

It has been documented in various studies that trails and greenways can have a positive economic impact on their host community. One of the factors influencing economic impact is that trails are amenities offering alternative transportation choices. Trails can provide benefits by increasing property values and encouraging infill development in established areas.

A March, 2004 report titled, *“Property Values, Recreation Values, and Urban Greenways”* authored by IUPUI professor, Dr. Greg Lindsey showed that some greenway trails have a positive effect on property values and that their recreation benefits exceed their costs.

A prime example where economic impact has been positive is along the Monon Trail in Indianapolis. This trail is part of the Indy Greenways system and has been very popular with the public since its development in the mid-1990’s. A study showed homes within a half-mile of the Monon Trail command a sales premium of \$13,059. If this premium is applied to all 8,862 homes within this distance of the trail, then the total increase in property values in Marion County is \$115.7 million. Source: *Indiana Center for Urban Policy and the Environment, Indiana University-Purdue University, 2003 (www.urbancenter.iupui.edu)*

The public also tends to spend money when using the trails. Establishments next to trails such as restaurants and cafés, coffee shops, ice cream shops, places offering bike and skate rentals, groceries and pharmacies along with other commercial establishments benefit when trail users make purchases.

The public will spend money at other times to purchase items that they will use on the trail. These items include running shoes and running apparel, bicycles, roller blades, skates and fitness/leisure attire.

A significant economic force in Indiana is the equestrian industry. It has been estimated to be a billion dollar industry in the state alone. Equestrian riders make significant purchases of equipment and supplies to support their leisure activities. Establishments in NRHT communities that can help meet the needs of the equestrian rider may help to provide a strong boost for the local economy.

Improved Quality of Life

Those using the NRHT can realize an improved quality of life. The NRHT will provide the opportunity for the public to recreate and participate in self-directed activities that are beneficial to one’s health. Much public attention has recently been directed on sedentary lifestyles and the negative impact that can have on one’s health. The prevalence of this condition in society has generated cause for public health concern and calls for lifestyle changes. Trails can provide an important role for combating

“Tourism plays a significant role in Hoosier communities and the state’s economy. As we raise the profile of Indiana as a travel destination, we must help communities make needed improvements and additions that contribute to their quality of life.”

Source—Quote from Indiana Lieutenant Governor Kathy Davis, October 2004



Billboard advertising apartments on the Monon Trail. Source: Storrow Kinsella Associates Inc

“It may not have sand and crashing waves, but the Monon Trail is the equivalent of beachfront property in the Indianapolis area”

**Bill Ruthart, Indianapolis Star
November 23, 2003**

IMPROVED QUALITY OF LIFE

A 2000 study entitled “Why Trails Should be Developed in Indiana” looked at six trail communities in Indiana and concluded:

1. Trail neighbors are frequent trail users, using the trail an average of 2.6 days per week
2. Neighboring property owners believe the trail has no negative or a positive impact on property values
3. Trails are viewed as safe and users view the local area more favorably because the trail exists
4. Trail neighbors view the trail as having improved neighborhood quality and as a better neighbor than they expected
5. Trail users are on the trail approximately 3 days per week for between 30 and 67 minutes each
6. A large percentage of trail users are willing to pay a fee. Those willing to pay a fee would pay \$5 to \$10 annually
7. Trails will be used by all ages of the community
8. Trail use is often tied in with other activities or errands
9. Trails will be used by residents, neighbors and visitors. Most use will occur during evenings on weekdays and during the day on weekends
10. Trails will be used predominantly for walking and bicycling with running, skating and other activities also occurring

Source: Steve Wolter, “Why Trails Should be Developed in Indiana”, Eppley Institute for Parks and Public Lands, Indiana University of Bloomington

obesity and other diseases by offering a platform for outdoor recreation. The NRHT will be important because of its proximity to a significant number of Indiana residents who can use the trail for exercise and recreation.

Other quality of life benefits that the NRHT can promote include:

- More people using the NRHT for short trips means less reliance on cars, thereby reducing auto emissions and improving air quality
- The NRHT can become a gathering spot for families and friends
- The proposed NRHT can provide a safe and efficient corridor for kids to travel to and from school
- The proposed NRHT may unite adjacent communities, encouraging them to share public events
- Trailheads can function as pleasant public gathering spaces in addition to providing safe and convenient access to the trail
- The trail can be an outdoor exhibit area for public art

The Chambers of Commerce for the various trail communities should consider promoting the positive aspects of the NRHT. As shown, the NRHT will have positive impacts on economic development and individual’s quality of life.

Linked Public Spaces

The proposed NRHT alignment will intersect with other trails and greenways, which will expand Indiana’s current trail systems. This is significant as the NRHT will be in close proximity to a substantial percentage (+20%) of Indiana’s 6.2 million population. Fully, one out of every five Hoosiers will be able to use the NRHT to access a number of public places of interest.

The proposed NRHT alignment will also be positioned to facilitate links with existing and future Illinois and Ohio trail systems. The connection between these state trail systems will greatly expand the ability of the public to have access to more communities and points of interest.

The NRHT is proposed to link 30 separate communities. By linking communities and districts, the NRHT will create a stage for public activities. Residents of NRHT communities will have recreation and transportation opportunities because of the proximity of the trail to their homes. The NRHT will link bicycle, pedestrian and horseback riding trails with other forms of recreation such as parks, recreation centers, aquatic centers, and canoeing.

The proposed NRHT will provide communities with links to rural Indiana countryside. These connections will allow trail users to experience Indiana’s scenic urban and rural countryside.

Increased Alternative Transportation Options

The benefits of alternative transportation are numerous. Alternative transportation serves as a critical link throughout the overall transportation network, providing pedestrian, bicycle and equestrian access to home, work, education, commerce, transit, and recreation. Because alternative transportation systems provide such fundamental services to the public, the NRHT should be designed to meet the needs of the maximum number of potential users.

People with disabilities who live in areas without accessible pedestrian networks and do not have access to automobiles face a greater risk of becoming isolated from the community and unnecessarily dependent upon others to perform routine activities such as grocery shopping. An all-inclusive approach to a NRHT alternative transportation design will ensure that the needs of all potential users are addressed, including people with disabilities.

Alternative transportation systems can enrich the livability of a community; they provide opportunity for a population that does not have, or chooses not to have, access to a vehicle. In today's world of rising fuel costs, low-cost or no-cost alternative transportation is becoming increasingly significant.

Commercial districts along the NRHT will have a larger customer base because of the available alternative transportation. In addition, all people will be able to participate more easily in the community if a system is available because they can reach their desired destinations more easily. Neighborhoods that embrace the NRHT and develop an extended alternative transportation system which encourage walking or biking, become safer because there are more people outdoors paying attention to what is going on in the area. A broader range of consumer, social, and recreational opportunities will be available in areas that are available to non-motorized users.

The NRHT may also provide an opportunity for the public to expand their transportation options if connections with multi-modal transportation can be made in communities where multi-modal opportunities exist. The proposed NRHT may provide opportunities for public transit providers to locate transit stops and bus shelters near the trail. In urban and developed areas where transit service is provided, the proposed NRHT will, on occasion, cross streets and roads that are designated transit routes. In those instances, there may be an opportunity to place bus shelters adjacent to the trail, near the location of street crossings.

The proposed NRHT may link with future rail transit stops, if they should ever develop. Future rail transit lines may run parallel to, be in close proximity with, or actually cross the NRHT corridor which would provide opportunities for



The NRHT will be a multi-use trail that accommodates a variety of recreation uses.



View showing vegetation along the proposed NRHT alignment at C. R. 125 E in Henry County. Source: Storrow Kinsella Associates Inc

connecting the two systems.

Trails can reduce numbers of vehicles on the streets by providing the public with alternative forms of transportation for short trips. As pedestrian connectivity is increased, users combine recreation for other purposes. Former sentence removed from here—delete this.

Recreation

As previously described, trails can help contribute to a healthy lifestyle and improved quality of life. Trail corridors provide safe outdoor environments where the public can participate in self-directed recreation. The NRHT will be an important recreation resource for Indiana because of its 150-mile length and the opportunities it will provide for walking, biking and horseback riding. The NRHT corridor may also provide recreation opportunities if it is utilized as a place for community recreation activities such as walks, running events and bicycle races.

While many trails in Indiana have been developed specifically for pedestrian/bicycle use, the NRHT will also integrate horseback riding into the corridor. The NRHT will join the Cardinal Greenway in eastern Indiana as a trail that accommodates equestrian, bicycling and hiking activity. The entire 150-mile length of the NRHT will allow for bike/pedestrian use. Much of the 150-mile corridor (over 40%) could also incorporate adjacent equestrian.

Education

An opportunity exists for the public to use the NRHT as an outdoor education classroom. A number of benefits can be provided by the NRHT for the public to learn about historical events and people that shaped Indiana. The NRHT will pass through 30 communities, offering opportunities for stories about those communities to be told on the trail. The railroads which once ran along the corridors used by the NRHT also had an impact on the history of the state and nation. The Historic National Road — “The Road that Built the Nation” is often in close proximity to the NRHT providing context for an understanding of an important chapter of Hoosier history .

The benefits of using the NRHT as a platform to present Indiana’s history is something that will be enjoyed by school kids, residents and visitors to Indiana.

Preservation

The NRHT will help promote and enhance the integrity of the natural environment. As an example, the former Pennsylvania Railroad corridor in Henry County has seen an increased return of native plants. Wind-born seeds from “Big Bluestem” are being carried along the corridor and establishing stands of the native grass. In rural areas, small trees are growing along the



Historic National Road in Dublin. Source: Storrow Kinsella Associates Inc

edges of the former railroad corridor. These areas provide shelter for wildlife and help contribute as a food source.

Cultural

As described, many sections of the NRHT will often be in close proximity with the Historic National Road. Sometimes the two corridors run side-by-side for a number of miles. This close adjacency will help influence and strengthen the NRHT's identity and image. The public will benefit from using the NRHT to access Historic National Road communities and experience the culture that they have to offer.

Another benefit is that the NRHT will provide a location for public art, music, community events, gatherings and celebrations. Trail communities will benefit by having the public visit to experience their culture. In turn the NRHT will provide communities with a sense of place.

The majority of the proposed trail corridor will be located in rural areas. It is in these settings that trail users may be treated to scenic views of farmsteads and agricultural fields—experiencing the culture of Indiana's agricultural heritage. In western Indiana the scenery along the proposed route will offer other views where wooded areas combined with gently rolling topography provide a different context. Trail users will also have opportunities to view river and stream corridors and the skylines of Indiana's urban centers at Indianapolis, Richmond and Terre Haute. It is in these locations that trail users can experience the culture of towns and developed areas.

HOW TO'S OF TRAIL PLANNING

Planning Process

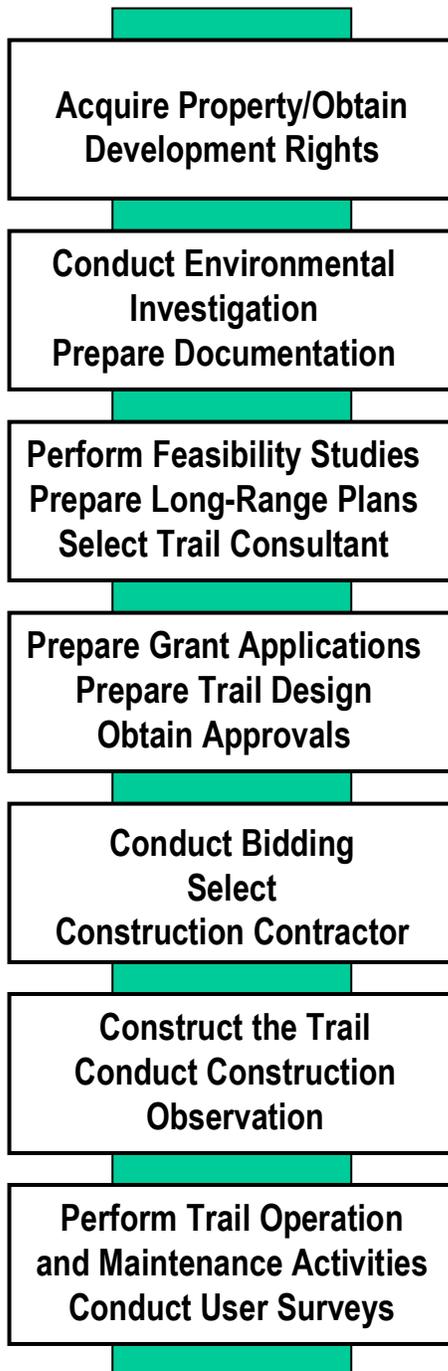
Local communities and agencies will play an important role in the development of the cross-state NRHT. The types of tasks local communities and agencies can either be expected to perform or be responsible for overseeing can be extensive. These tasks may include acquiring property, conducting environmental research and preparing follow-up documentation, performing feasibility studies, preparing long-range plans, preparing and submitting grant applications, preparing/reviewing and approving trail design drawings, bidding and selecting trail construction contractors, overseeing construction activities, performing trail user surveys, managing and maintaining the trail. While the local community or agency may not actively perform all of these tasks, they may be responsible for selecting and overseeing a consultant who will perform any one of these duties.

The following is an overview of tasks that local communities and agencies may undertake for the NRHT.

Property Acquisition

Property ownership within and along the former railroad corridor

PLANNING PROCESS



varies across the eight Indiana NRHT counties. This condition has important implications for the NRHT, as much of the trail alignment is proposed to be located within the corridor.

In some cases, competing uses currently on the corridor need to first be investigated and subsequent discussions made with property owners to determine an appropriate approach for the location of the trail. Also, property next to the trail may need to be obtained for the location and placement of a trailhead.

There are a number of methods available for local communities and public agencies to obtain property rights to develop the NRHT. Techniques for obtaining property rights require legal procedures and may include property leases, property donations, easements, and property purchases. The recommended approach local communities and agencies should take is to make a fee-simple purchase of the property. This will allow the owner to have full control and development rights.

Communities and agencies are encouraged to begin taking steps to secure property for the placement of the trail. This is an important first step. Property can be land banked until the local community is ready to undertake the following series of steps for the trail implementation. Securing property for the public domain can also help efforts to reduce vandalism on what the public may perceive as vacant property.

Conducting Environmental Research and Preparing Documentation

The process that local communities and agencies must undertake when applying for Transportation Enhancement (TE) grant funds requires that environmental documentation first be performed. The results and supporting documentation is submitted along with the grant applications. (For more information on topics requiring documentation, refer to Environmental Documentation in this section of the Development Guide)

Performing Feasibility Studies

The development of the NRHT may first require that study and investigation be performed for a number of trail related issues. These can include studies which investigate the suitability of existing or proposed bridges, the need for land acquisition, type of appropriate road crossings based upon traffic patterns, etc. The extent of the trail approach and conditions that must be addressed, along with requirements of funding agencies will determine the necessity of performing feasibility studies for the NRHT.

Preparing Long-Range Plans

Communities have responsibilities for their local planning needs including reviewing and approving new development, determining land-use, regulating zoning, etc. The alternative

transportation impacts and land development patterns associated with the NRHT should be included in any agency's planning efforts. Planning documents should be updated to show the location of the NRHT.

Preparing and Submitting Grant Applications

Local costs associated with the design, construction and maintenance of trails can be offset by a number of grants that are being offered. There are several sources of state and federal dollars for greenway and trail projects. These sources have varying deadlines, criteria and requirements. (For more information on available programs, see **Funding Sources** in this section of the Development Guide)

Preparing/Reviewing and Approving Trail Design

Local communities should seek the input of those knowledgeable in trail design to prepare plans, drawings, specifications and documents for the NRHT. When the local agency does not have appropriate in-house capabilities, or the complexity of the project requires specialized expertise, then the agency should look to consultants to help with their trail design needs. Landscape Architects and Engineers that have experience with trail design, construction and preparing cost estimates can be great resources for communities in their efforts to develop trails. Communities and agencies can select and hire consultants to prepare the trail design and associated documents and in-turn review and approve the drawings.

There are procedures that local public agencies need to follow when selecting consultants on contracts involving federal participation. Local agencies will prepare and send out a request for proposals, which will require consultants to submit their qualifications for performing trail design activities. The local agency will decide which firm is the most suitable for employment and make its selection based upon state and federal requirements.

Bidding and Selecting a Trail Construction Contractor

Drawings, plans, and specifications that have been prepared for the trail design should be prepared to a level of detail so that the local agency can conduct a public bid to select an appropriate and qualified contractor to perform the trail construction.

Overseeing Construction Activities

The local agency may either perform the overseeing of the trail construction and implementation, or secure the services of an appropriate group to conduct those activities. The purpose is to make sure the trail is constructed as designed and specified on the drawings.

Conducting Trail User Surveys

An important task that could be performed to gauge trail user's perceptions and attitudes toward the NRHT is to conduct

surveys. These could be performed on a periodic basis by the local community or agency to assess how to make the trail users experience more enjoyable.

Managing and Maintaining the Trail

An important task and one that should be addressed early in the planning process is how will the various NRHT segments be managed and maintained. Consideration should be given to who will be responsible for the long-range operation of the trail, the level of maintenance that will be appropriate for the trail and ways that maintenance activities will be funded.

Funding Resources

The following list includes potential funding sources to assist in the development, construction, maintenance, and management of the National Road Heritage Trail.

- Transportation Enhancements (TE) program. A program of the Department of Transportation's Federal Highway Administration (FHWA), TE is an ideal, although competitive, source of funds for transportation projects. This program provides funding for a variety of non-traditional transportation projects that enhance the "cultural, aesthetic, and environmental aspects of the Nation's intermodal transportation system." The development of the National Road Heritage Trail is an eligible activity under the "non-traditional" heading. *Source: Indiana Department of Transportation (www.in.gov/dot)*
- Recreational Trails Program (RTP). A program of the Department of Transportation's Federal Highway Administration (FHWA), RTP provides assistance by making funds available to states to develop and maintain recreational trails and trail-related facilities for both non-motorized and motorized recreational trail use. Funds represent a portion of the motor fuel excise tax collected from non-highway recreational fuel use (e. g. snowmobiles, all-terrain vehicles, etc.). Each state administers its own program. In fiscal years 2005-2006, Indiana received more than \$2.2 million in funding for RTP. *Source: Federal Highway Administration (<http://www.fhwa.dot.gov/environment/rectrails/>)*
- National Scenic Byways Program. FHWA's National Scenic Byways Program promotes the recognition and enjoyment of the country's memorable roads. Grant funding is available for projects that benefit the traveler's experience. *Source: National Scenic Byways Program (<http://www.bywaysonline.org/grants/>)*
- Urban Forest Conservation (UFC) Grant. UFC grants are intended to help communities develop long-term programs to manage their urban forests. Grantees may conduct any project that helps to improve and protect trees and other associated natural resources in urban areas. Community projects that target program development, planning, and education are emphasized.

Previously funded projects include activities such as conducting tree inventories, developing tree maintenance and planting plans, writing tree ordinances, conducting programs to train municipal employees and the public, purchase or development of publications, books and videos, hiring consultants or city foresters, etc. Certified Tree Cities may spend up to 20% of the grant funds on demonstration tree planting projects. Local municipalities, not-for-profit organizations and state agencies are eligible to apply for \$2,000 to \$20,000. *Source: Indiana Department of Natural Resources (<http://www.in.gov/dnr/forestry/index.html>)*

- Congestion Mitigation and Air Quality (CMAQ) Improvement Program. The CMAQ program is a \$6 billion program providing funding for surface transportation and other related projects that contribute to air quality improvements and reduce congestion. This program is intended to adjust the focus of transportation planning toward a more inclusive, environmentally-sensitive, and multi-modal approach to addressing transportation problems. *Source: Federal Highway Administration (<http://www.fhwa.dot.gov/environment/cmaqpgs/>)*
- Community Development Block Grant (CDBG). The CDBG program provides annual grants to entitled cities, urban counties, and states for community development activities directed toward revitalizing neighborhoods, economic development, and providing improved community facilities and services. Entitlement cities, those with a population of at least 50,000, develop their own programs and funding priorities and receive CDBG funds directly from the US Department of Housing and Urban Development (HUD). Non-entitlement cities/towns, those with a population of less than 50,000, compete for state CDBG funds. Eligible activities include: acquisition of real property; relocation and demolition; rehabilitation of residential and non-residential structures; construction of public facilities and improvements, such as water and sewer facilities, streets, neighborhood centers, and the conversion of school buildings for eligible purposes; public services, within certain limits; activities relating to energy conservation and renewable energy resources; and provision of assistance to profit-motivated businesses to carry out economic development and job creation/retention activities. *Source: US Department of Housing and Urban Development (<http://www.hud.gov/offices/cpd/communitydevelopment/programs/index.cfm>)*
- Historic preservation fund grants. The National Trust for Historic Preservation offers grant and loan opportunities for initiatives that preserve the country's heritage. *Source: National Trust for Historic Preservation (<http://www.nationaltrust.org/help/grants.html>)*
- INDOT will receive more than \$2 million annually over the

next five years to fund the Safe Routes to School (SR2S) program. In instances where the National Road Heritage Trail passes through urbanized areas, several schools are located within a short distance. This initiative could be eligible for SR2S funding for infrastructure and non-infrastructure projects.

- User fees could help offset some of the costs of development, maintenance, or management through the requirement of registration before use of some facilities or a tax on bike sales or rentals in individual counties.
- Private investment is a source of funding for project implementation. This investment could include financial contributions from individuals or corporations, an “adopt a trail” sponsorship program, volunteer maintenance and patrolling groups, and others.

Environmental Documentation

Government funding of trail projects requires due diligence be performed early in the design process to determine conditions and impacts of the trail. A very common funding approach that many communities pursue for trail projects is with Transportation Enhancement (TE) grant funds administered by INDOT. Environmental documentation is not required before application for TE grants. The process that agencies must undertake when using TE grant funds requires thorough environmental documentation.

A sample list of issues that environmental documentation must address includes but is not limited to:

- Alternative Concepts
- Mitigation Measures
- Land Use
- Farmland Conversion Impacts
- Acquisitions
- Relocations
- Topography and Geology
- Soil Classifications
- Water Resources
- Water Quality
- Wetlands
- Water Table Impact
- Floodplain Impact
- Ecologically Sensitive Areas
- Flora and Fauna
- Endangered Species
- Noise Analysis
- Air Quality
- Historical Sites

- Section 106 of the National Historic Preservation Act
- Archaeology
- Natural Areas
- Economic Effects
- Social Effects
- Bicycles/Pedestrians
- Permits
- Hazardous Waste Sites
- Visual Impacts
- Mitigation of Adverse Impacts
- Section 4(f) Involvement
- Section 6(f) Involvement
- Special Features
- Early Coordination

There are a number of agencies that will be involved with reviewing or coordinating environmental documentation including but not limited to:

- Local and County Agencies
- Indiana State Historic Preservation Office (Indiana SHPO)
- Indiana Department of Natural Resources (IDNR)
- Indiana Department of Environmental Management (IDEM)
- Indiana Department of Transportation (INDOT)
- U. S. Environmental Protection Agency (EPA)
- U. S. Army Corps of Engineers (USACE)



Keys to Success: Belief in One's Ability to Succeed.
 Source: *The Universal Traveler: a Soft-Systems Guide to: Creativity, Problem-solving and the Process of reaching goals*

THE NATIONAL ROAD HERITAGE TRAIL

A Cross-State Greenway Spanning Over 150 Miles, 30 Communities and Years of Hoosier History

National Road Heritage Trail Vision

The National Road Heritage Trail will connect the rich cultural destinations and economic resources of communities across central Indiana with a multi-use pedestrian/bicycle/horseback-riding trail.

This cross-state trail, linking Richmond to Terre Haute, could serve as the official launch of a statewide trail system and model for alternative transportation's role in Indiana's quality of life initiatives.

National Road Heritage Trail Goals

The following goals are intended to promote the vision for the NRHT. They are presented along with measurable objectives to help guide communities in their efforts to develop the trail. The goals and objectives provide the foundation for the NRHT Development Guide concepts, design guidelines, maps, planning and project priorities, and policies.

In addition to providing a common direction and purpose for the NRHT, they are also intended to help build consensus and broad-based support for the cross-state trail Indiana. They were intentionally created to be broad, in order to allow flexibility and opportunity for revisions as conditions along the NRHT corridor change over time.

1. Economic Development

Goal – The NRHT will play an important part in the state's economic development plan.

Objective: Promote tourism by linking the trail with adjacent historic, cultural, retail and recreational areas that may be visited by tourists.

Goal – To become the first east/west trail to cross the State of Indiana, connecting Ohio to Illinois.

Objective: Increase visits to the NRHT communities by promoting the opportunity for long walking, bicycling, and/or equestrian trips.

Goal – Promote the trail to help attract and retain quality residents, business, and industry.

Objective: Enhance the local economy by reducing commuter costs and increasing property values.

2. Quality of Life

Goal – Contribute to the quality of life for residents living in NRHT connected communities.

Objective: Ensure the trail corridor is built to a common design standard that ensures access and amenities.

Objective: Incorporate areas along the trail where

public art can be displayed.

Goal – Help support preservation initiatives the Indiana National Road Association is undertaking for the Historic National Road/U.S. 40.

Objective: Endorse significant development projects that support the Indiana National Road.

Objective: Build awareness of the Indiana National Road by incorporating interpretive sites along the trail corridor.

Objective: Provide trail links between the NRHT and significant historic National Road sites.

3. Linkage

Goal – Expand Indiana’s current network of trail systems.

Objective: Provide a physical link between the NRHT and other trails in the vicinity of the NRHT.

Objective: Connect rural areas with population centers.

Goal – Use the NRHT to promote a network of alternative transportation and trail systems that connect key destinations across central Indiana.

Objective: Link key destinations

Objective: Provide safe routes to school

Objective: Provide secure bike parking

4. Transportation

Goal – Provide expanded transportation opportunities for Indiana’s residents and visitors.

Objective: Provide a system where non-motorized transportation can take place.

Objective: Encourage various transportation forms such as walking, bicycling and horseback riding.

5. Recreation

Goal – Provide expanded recreation opportunities for Indiana’s residents.

Objective: Facilitate easy trail access where the cost to participate in recreation is free.

Objective: Create a safe outdoor environment where recreation activities can occur.

Goal – Contribute to the development of trails where users can participate in self-directed recreational activities.

Objective: Partner with those in health and recreation professions to develop healthy lifestyle incentives for trail users.

6. Education

Goal – Promote education as a benefit for those using the NRHT.

Objective: Partner with historic, cultural, and natural resource stakeholders to develop educational programs, interpretive stations, and outdoor learning opportunities.

Objective: Utilize the NRHT as an outdoor classroom



The NRHT offers potential as an outdoor classroom. Photo courtesy Dan Burden.



The proposed NRHT alignment often brings it in contact with natural resources like stream corridors

for school children.

7. Preservation

Goal – Preserve and promote Indiana’s culture and heritage.

Objective: Preserve historic transportation and railroad resources along the corridor.

Objective: Preserve cultural resources along the corridor.

Goal – Promote and enhance the integrity of the natural environment through the sensitive development of the NRHT.

Objective: Preserve natural resources along the corridor.

Objective: Require environmentally sensitive design techniques and materials for trail construction and placement.

Ownership of the NRHT

The NRHT alignment is proposed to pass through eight Indiana counties, connecting over 30 Indiana communities. In doing so, the trail will cross many political jurisdictions.

One possible approach is for local trail communities to develop segments of the NRHT as a component of their linear park or alternative transportation systems. This approach would also formally establish responsibility for maintenance and management of the corridor segments at the local level.

TRAIL SAFETY AND MAINTENANCE

As segments of the NRHT are developed by different communities, policies should be established that address trail safety and maintenance. The following recommendations are intended as a guide for the NRHT communities to consider and adapt to their particular circumstances.

Emergency Access

It is recommended the NRHT be designed to allow emergency and maintenance access by motorized vehicles where possible. Measures will be needed however, to keep unwanted vehicles from gaining access to the trail corridor. Removable bollards or lockable gates are two types of devices that can help control access.

Patrols

Patrolling the trail on a regular basis will be important to maintain order, provide emergency rescue, pick up litter, and monitor maintenance needs. Often this is accomplished through the cooperation of multiple entities, including local police, sheriffs, parks patrols, and volunteer and neighborhood groups.

Hazards and Risks

Anticipated hazards and risks can be minimized in bicycle and pedestrian pathway design by adhering to AASHTO (American Association of State Highway and Transportation Officials) and INDOT (Indiana Department of Transportation) design guidelines.

Unavoidable hazards should be identified and clearly signed for various user groups. This will help alert trail users to potential dangerous situations and offer ways avoid conflicts.

Service/Maintenance Standards

There are different levels of service / maintenance that can be provided for trails. Each community will need to decide what is most appropriate for them. However, appropriate levels of upkeep and maintenance of the NRHT should be a high priority.

Annual and seasonal maintenance activities will be necessary such as:

- Mowing grass shoulders
- Removing overgrown vegetation
- Removing invasive plants
- Bridge or drainage repairs
- Replacing worn materials
- Maintaining the condition of trail surfaces
- Maintaining the condition of equestrian trails
- Erosion Control and Repairs
- Repairing or replacing items affected by vandalism
- Removing leaf litter/debris
- Potentially removing/plowing snow

Consideration must be given to the most appropriate level of maintenance, the type of equipment needed to accomplish that level of maintenance, and the ability to adequately fund maintenance over the life of the trail

- Determine the agency (or agencies) responsible for performing maintenance
- Need to clarify expectations for agencies involved.
- Obtain letters of agreements when multiple agencies or jurisdictions are involved to clearly spell-out roles and responsibilities
- Determine life-cycle for maintenance equipment and when it needs to be replaced
- Perform surveys to obtain trail user's views and opinions on how maintenance is being performed



*A Volunteer Clearing the Trail near Amo
Source: National Road Heritage Trail*

Creative ways to supplement small Safety and Maintenance budgets

Performing day-to-day and seasonal trail safety and maintenance activities will be necessary over the long-term life of the NRHT. As imagined, the amount of care and maintenance required for a 150-mile long trail will be a challenge. Especially if the responsibility for performing these duties is left solely to the many trail communities along the NRHT corridor.

Communities that have faced the challenge of maintaining trails have developed innovative and cost-effective programs.

Many trail groups are utilizing trail users from their communities as volunteers for many activities. As trail segments are completed, individual communities should give consideration to organizing groups of volunteers to:

- 1) serve as trail observers and maintainers and,
- 2) act as goodwill ambassadors.

The volunteers could play an important role in providing the public with information on proper trail conduct, etiquette, and safety while at the same time helping to foster positive public relations.

RESOURCES FOR LOCAL COMMUNITIES

There are a series of agencies and groups that can help local communities in their trail development efforts. It is recommended that NRHT communities undertake research to become familiar with the assistance these groups can provide.

The Indiana Trails Fund (ITF): The ITF as a non-profit group has experience in trail construction and management and may be able to provide assistance for those communities who seek expertise with trail implementation and operational issues.

The Hoosier Rails-to-Trails Council: An all-volunteer, state-wide, not-for-profit, citizens' rail-trail advocacy and assistance group.

Greenways Foundation: A charitable trust working to promote the growth, enhancement and use of Central Indiana greenways.

Central Indiana Bicycling Association: CIBA is a bicycle club with more than 2000 members and a focus on bicycle touring, and an interest in all areas of cycling, including commuting and racing.

The Hoosier Hikers Council: Indiana's statewide trail repairing and trail building association.

Indiana Horse Council, Inc: The Indiana Horse Council, Inc. is a non-profit corporation dedicated to the well-being of the horse industry. The Indiana Horse Council, Inc. protects, promotes and preserves the interests and activities within the Indiana equine industry in areas of education, legislation, promotion and philanthropy.

Indiana Trail Riders Association

The Indiana Trail Riders Association promotes trail riding and related equine activities in Indiana and surrounding areas.

Indiana Department of Natural Resources, Division of

Outdoor Recreation: This Division of DNR has developed a statewide trail plan and maintains an inventory of built and planned trails.

Indiana Department of Transportation (INDOT), Bicycle and

Pedestrian Program: INDOT incorporates sidewalks, separated multi-use paths, pedestrian underpasses and widened shoulders into many of its projects to accommodate bicyclists and pedestrians.

NRHT IDENTITY

Background

As previously presented in this Development Guide, the impact of the cross-state NRHT and the benefits it will provide are substantial. An implemented and operational cross-state NRHT is envisioned to be an important asset for Indiana. Critical to the success of the trail will be public attitude toward the NRHT and the public's perception of how the trail may benefit their communities and their individual lives. It would be desirable if the public image and perception of the NRHT matches the goals and vision presented in this NRHT Development Guide. Efforts to promote the trail will be crucial in helping to positively shape public opinion. However, it is perhaps more important for those actually using the NRHT to have positive experiences. It can be expected that trail users who enjoy the NRHT and find their time on the trail to be a positive one will likely be repeat trail users who promote the NRHT to their family, friends, and co-workers.

Need

The proposed alignment of the 150-mile long NRHT will bring it in contact with many Hoosiers. A significant percentage of Indiana's residents will live or work near the trail. Of those living in proximity to the NRHT, many will actually be trail users. Because of the number of roads the NRHT will cross including interstate highways, national roads, state routes and city streets many people will come in contact with the NRHT in their travels.

It is therefore important for the public to visually recognize the location of the NRHT, have a sense of its importance and find clear directions for reaching the locations where public access is available. A well developed, clearly identifiable and attractive NRHT identity will help facilitate these goals.

The following are general goals for a NRHT identity.

Consistency

It will be important for the NRHT image to be consistent in all eight counties where the trail will be located. Consistency can be gained through the common application of the NRHT logo, the treatment of trail access points, the placement of signs and a common treatment for items along the trail. By having a consistent image all the way across its 150 miles, the NRHT will be perceived by the public as a unified and important trail system.

A Positive Image

One of the tools available to help the public have a positive trail experience is signage while sound maintenance practices and regular upkeep of the trail will also help build a positive public image. This section of the NRHT Development Guide focuses specifically on signage and identity proposed for the NRHT.

Concepts and ideas are included to show how a sign system can project a positive public image of the NRHT while contributing to trail user's comfort and safety.

At a minimum, the NRHT layout, signage and maintenance should all work together to visually project the following:

- The trail corridor is a public space and people are welcomed to enter
- People of all ages and abilities are encouraged to use the NRHT
- The trail can safely accommodate a variety of leisure activities such as walking, bicycling and horseback riding.



Effective signs and wayfinding maps can help the public have a safe and more enjoyable trail experience. Source Storrow Kinsella Associates, Inc

Existing NRHT Signage

A unique challenge awaits the cross-state NRHT regarding its identity. This is due to the fact that certain segments of the proposed Indiana NRHT alignment will utilize trails from already established trail systems. All of these existing trails currently have signage systems.

The existing sign systems were developed to express the identity of the particular trail system. Specific trail names, logos, sign shapes, text fonts and colors were previously developed for these particular trail systems.

The series of existing trail networks, which the NRHT is proposed to use and which have established signage include:

- Terre Haute's NRHT
- People Pathways
- Vandalia Rail Trail
- Indy Greenways
- Greenfield Pennsy



Existing Terre Haute National Road Heritage Trail Signage—Source: Storrow Kinsella Associates, Inc.



Existing People Pathways Trail Signage—Source: Storrow Kinsella Associates, inc.



Existing Vandalia Rail Trail Signage—Source: Storrow Kinsella Associates, Inc.

The proposed approach for the cross-state NRHT is that local communities continue to keep the name and identity of their individual trails. At the same time, it is proposed the NRHT identity become integrated with existing trail signs to demonstrate that the local trail is an important segment of the larger, cross-state trail.

The next series of pages describe an approach for creating a cross-state NRHT identity along with concepts for integrating with existing trail signs.



Existing Indy Greenways Trail Signage—Source Storrow Kinsella Associates, Inc.



Existing Pennsy Trail Signage—Source Storrow Kinsella Associates, Inc.

SHAPING THE NRHT IDENTITY

It will be important for the public to visually recognize the NRHT corridor as specifically being the cross-state trail. There will be locations both on and off the trail, across its 150-mile length, where the appropriate placement of a trail sign, distinctive trail feature or NRHT symbol will contribute to the NRHT's recognition.

Because much of the cross-state NRHT alignment follows the former railroad corridor, physical features or references from the era when the railroad was active can be incorporated into the NRHT image and identity.

Railroad symbols such as crossing markers and railings can provide a distinctive image for the trail and remind the public of how the corridor was once used. Photos on this page show features associated with the railroad. In addition, drawings prepared by the railroad a century ago for elements that were once used along the rail corridor are shown.

Some trail communities have begun to place elements along their trails to establish their own local identity. An example is a mile marker currently used along the Greenfield Pennsy Trail.

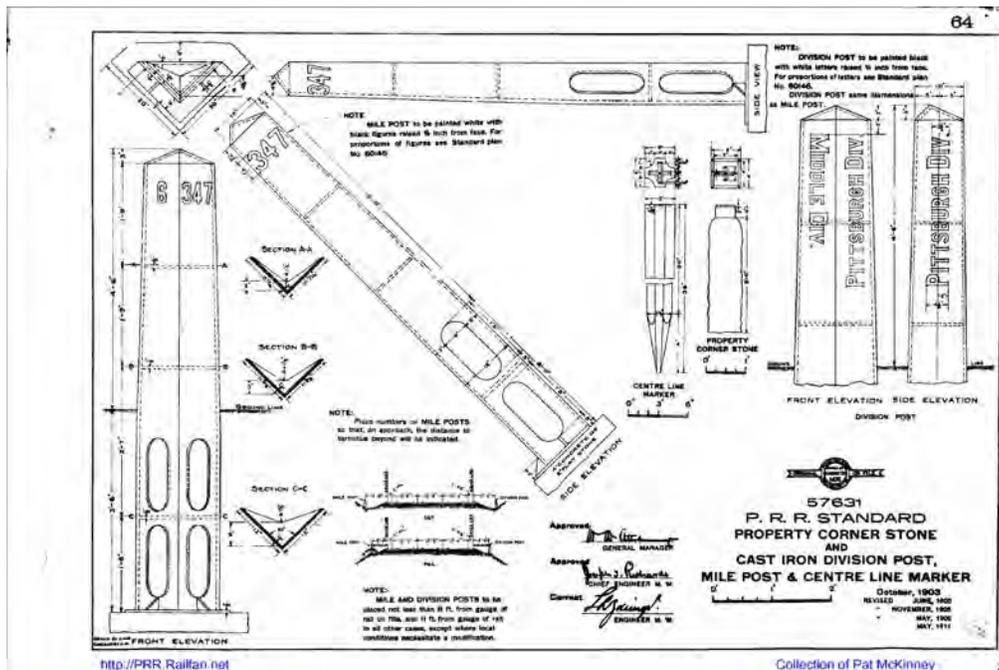
There are locations within the proposed cross-state trail corridor where the placement of a NRHT sign/logo or symbol can visually reinforce the image and identity of the trail. These applications are for the benefit of the trail user. Ideally, signs and sym-



Features associated with the railroad can shape the NRHT identity. Shown are a railroad crossing marker and historic railing. Source: Storrow Kinsella Associates, Inc



Examples of mile markers currently used along the Greenfield Pennsy Trail.



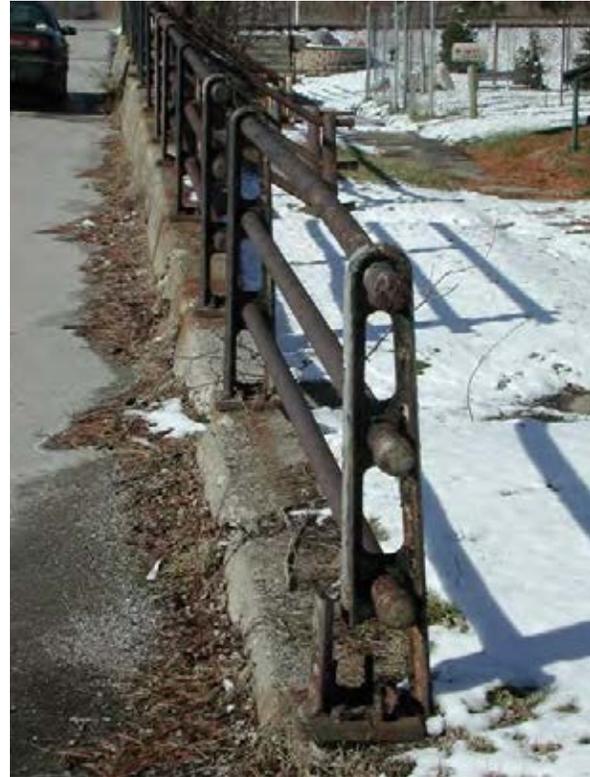
Drawings showing elements that were developed for the railroad a century ago

bolts will occur at trail entry/exit points, at-grade road crossings, bridge crossings, and thresholds where the NRHT enters a community. For those not on the trail, the use of a NRHT sign/logo/symbol should identify the location of the NRHT corridor. These applications will occur at trailheads, approaches to road crossings, intersections with other trails and bikeways, bridge overpasses and at periodic points along the National Road, where the two corridors are in relatively close proximity.

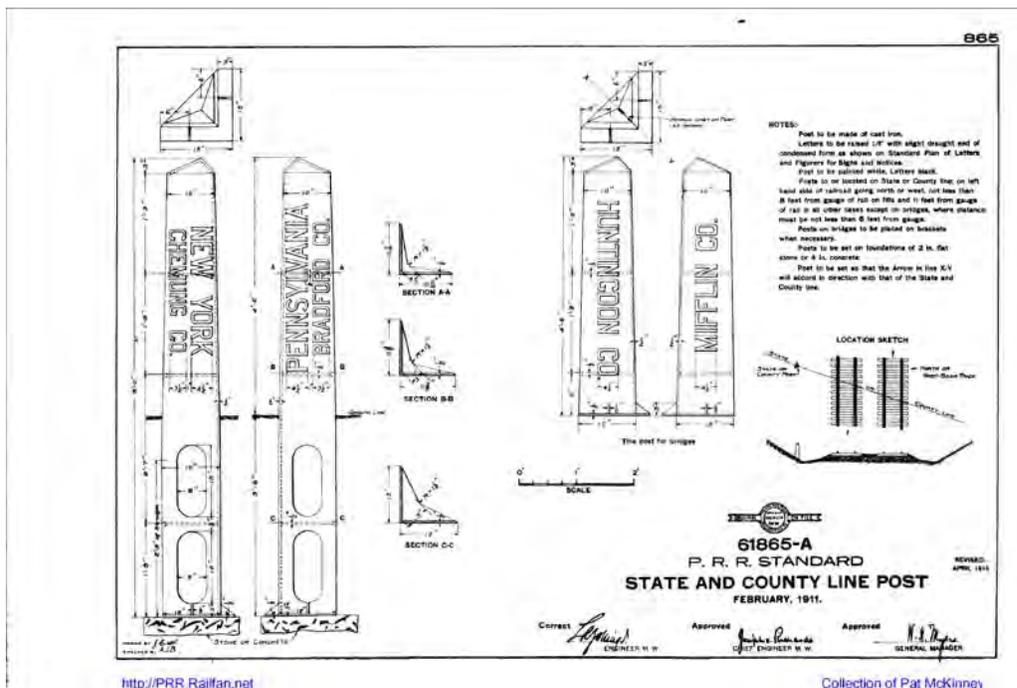
Coordinated NRHT Sign System

A coordinated and effective NRHT signage and identity system will have a number of benefits. In particular a well-developed signage and identity system can:

- Establish a unique and distinct identity for the NRHT
- Integrate symbolic influences that come from Indiana's culture and heritage
- Strengthen the trail's identity by providing a consistent appearance across the length of the cross-state trail
- Identify the location of the trail and its boundaries
- Direct the public to trail ingress and egress points
- Promote public safety
- Explain trail etiquette and rules



Close-up view of metal railing once used by the railroads. Source: Storrow Kinsella Associates, Inc



<http://PRR.Railfan.net>

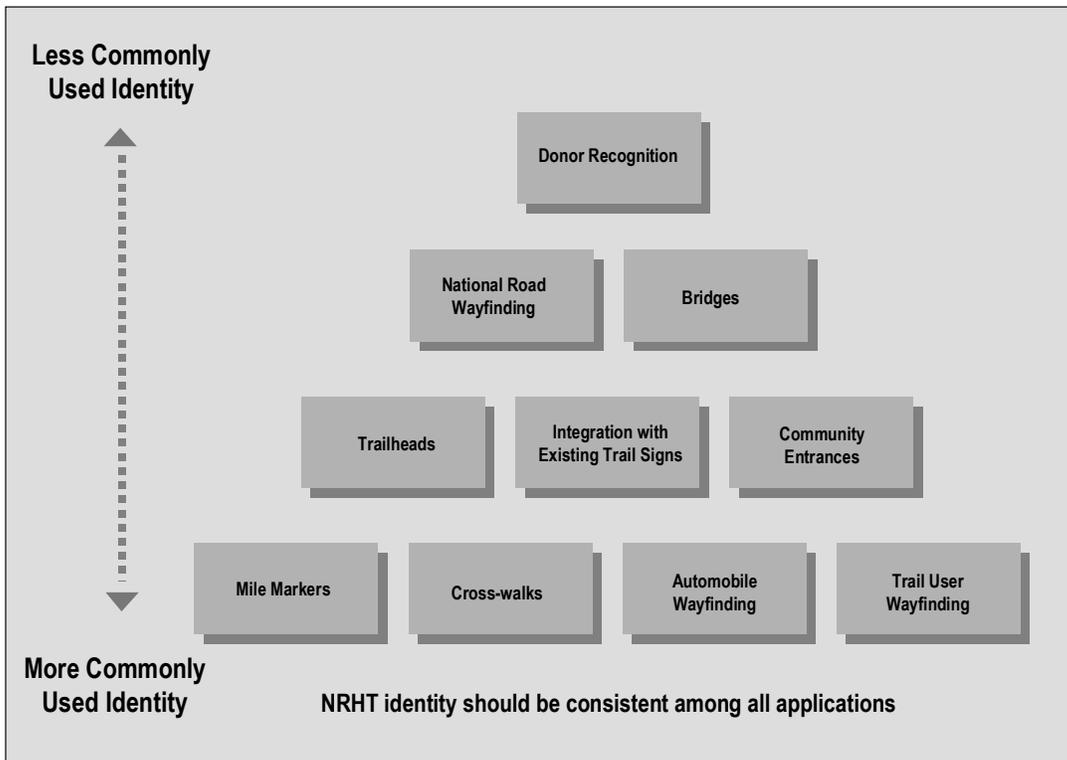
Collection of Pat McKinney

Drawings showing elements that were developed for the railroad a century ago

- Identify the location of unique features such as adjacent natural resources or sites of historical interest
- Contribute to education through the use of interpretive signs
- Provide the public with a sense of direction (for example: “You Are Here” signs, mile markers and directions to adjacent area features)

The coordinated identity system can include a number of elements. Most notable of these are signs, which can be located either along the trail for the benefit of the trail user, or outside the trail to publicly identify the location/boundary of the cross-state trail. But other elements can be effective communicators of identity as well including mile markers, railings, cross/walk treatments and furniture such as benches, kiosks and bike racks.

The frequency for using identity elements will depend upon a variety of factors, such as the context for its use. For instance, there will be a significant number of times the cross-state NRHT will cross roads. These locations present prime opportunities to display the NRHT identity. Signs could be placed at these sites to identify the trail corridor for passing vehicular traffic as well



Graphic showing certain types of identity will be used with greater frequency than others

as identifying entry/exit points for trail users.

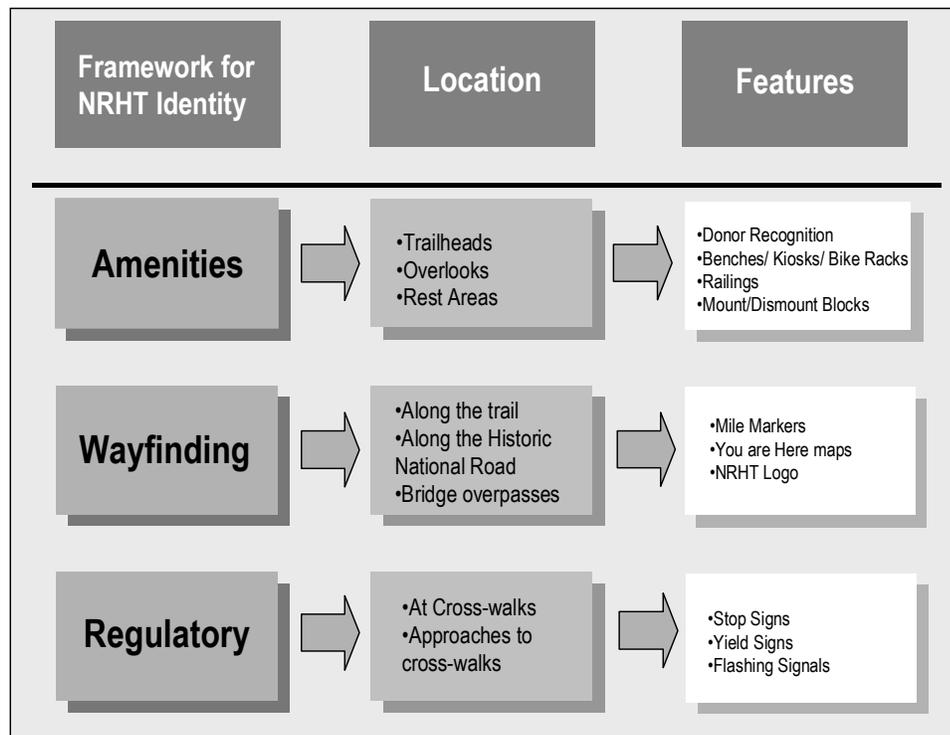
A mile marker system can also be implemented across the 150-mile NRHT to help the public with wayfinding and understanding their location on the trail. One approach would be to locate mile markers at regular intervals along the trail— perhaps every 5 miles. If the numbering for mile marker system began at the Illinois/Indiana border and moved west to the Indiana/Ohio border, then trail users would have an idea of their location relative to the overall length of the NRHT.

Less frequently used types of trail identity will be signs placed on NRHT bridges over roads and locations along the Historic National Road where the two corridors are in relative close proximity.

Identity Framework

A variety of ways are available for effectively presenting the cross-state NRHT identity. The identity can be integrated with trail amenities, wayfinding signs and markers, and regulatory signs.

The following pages offer a framework for the development of a coordinated cross-state NRHT identity system. The information is included as a guide for local communities to develop and promote their particular segment of the cross-state NRHT.



Graphic showing ways NRHT identity may be presented



The National Road Heritage Trail logo
Design courtesy of Tom McCain (crittur.com)



The Historic National Road logo

The NRHT Logo

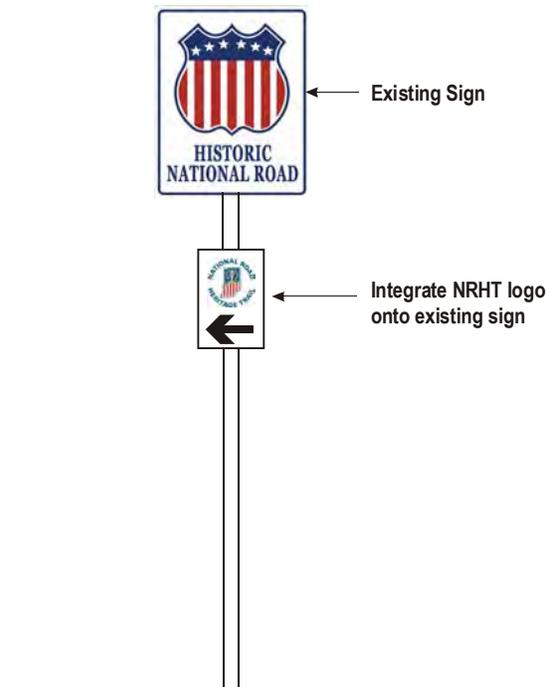
A graphic symbol has been developed for the cross-state NRHT and is currently being used for various purposes. Created specifically for NRHT, Inc. the logo is found on the NRHT web-site and is also used on the front cover of this NRHT Development Guide. Because of the association between the NRHT and the Indiana National Road Association, there are some similarities between the logos of the two organizations – including stars on a blue background located over vertical red and white stripes

The shield that is part of the Indiana National Road Association logo can also be found today on the Historic National Road sign which identifies the “Road that Built the Nation”.

The distinctive layout of the NRHT logo makes it easily recognizable and therefore useful as a base for the cross-state trail signage system. It is proposed the NRHT logo be incorporated in a number of features and elements across the entire length of the Indiana NRHT.

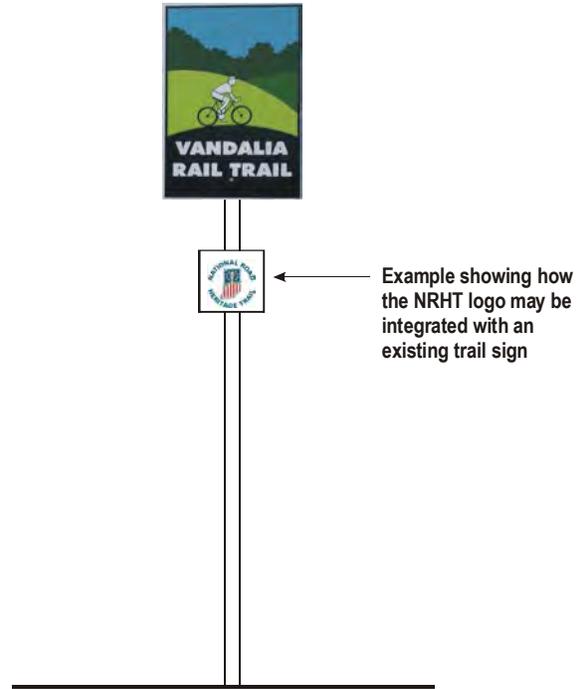
Integrating the NRHT logo with the Historic National Road Sign

It may be possible to visually link the NRHT with the adjacent Historic National Road, by integrating the NRHT logo and directional arrow onto an existing Historic National Road sign. This would help identify the location of the NRHT for those driving on the Historic National Road. Conversely, integrating an Historic National Road sign and directional arrow onto a NRHT sign at an appropriate location would direct trail users to the Historic National Road. Coordination would need to take place between the local community, the Indiana National Road Association and INDOT to identify the appropriate location of the co-signs and also to obtain permission to add the NRHT logo.



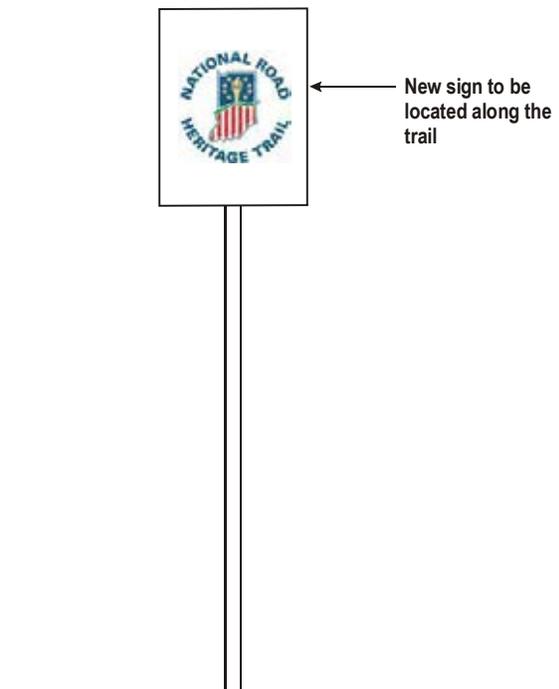
Integrating the NRHT logo with Existing Trail Signs

The NRHT logo should be integrated with trail identity signs that are being used along the trail segments proposed to comprise the NRHT alignment. This includes signs for the Terre Haute NRHT, People Pathways, Vandailia Rail Trail, Indy Greenways, and Greenfield Pennsy trails.



The NRHT Sign

It is proposed that a series of signs be placed at various locations along the cross-state trail to identify that it is the NRHT. These signs can be used at trail entry/exit points, trailheads and periodic locations along the trail.





DESIGN GUIDELINE INTRODUCTION

The cross-state National Road Heritage Trail is expected to be developed across different jurisdictions by various agencies and entities. The full implementation is envisioned to be accomplished over a period of time. It is important that trail Design Guidelines be established to create a unified and consistent pathway system that promotes safety and ease of use.

The design team has prepared the following recommendations to establish consistency and quality standards for trail materials, and development standards for the several types of facilities identified in the *NRHT Development Guide*. The type of facility implemented will vary based on the opportunities and constraints of the particular corridor segment. They should establish the basis for the system to provide comfort, safety and accessibility.

Please note these guidelines are schematic. In most cases it is recommended the guidelines be applied to a specific trail implementation project by a qualified design professional, such as a landscape architect and/or engineer with trail design experience. In specific situations, where the guideline recommendations cannot be met, the implementing entity and design professional should attempt to find the solution that best meets the goals and objectives of the *NRHT Development Guide*. Topics covered in the Design Guidelines include:

- Bike/Pedestrian Trail
- Bike/Pedestrian/Equestrian Trail
- Street Crossings
- Bridge Crossings
- Trailheads
- Amenities

In addition to the Design Guidelines, information is included at the end of the section which shows a conceptual design application for each of the eight NRHT counties. The conceptual designs illustrate ways the Design Guidelines can be implemented at specific sites. More detailed information about each of the eight concept sites can be found in the individual county overviews in the *NRHT Development Guide*.

While site conditions and circumstances often make applying specific solutions difficult, it is intended that these Design Guidelines reduce the need for ad hoc decisions and provide a basis for cost estimating.

Rationale for Locating the Bike/Pedestrian Trail

The development of the NRHT will create many opportunities for trail users across central Indiana. The creation of the 150-mile long trail will allow the public to recreate and use non-

motorized transportation to reach many varied destinations.

A great deal of the proposed NRHT alignment will utilize former railroad corridors. Today, years after the last active train service stopped, many of these corridors still remain intact. The width and alignment of the former railroad corridors make them suitable for the development of the cross-state NRHT. At a minimum, it is envisioned that a bike/pedestrian combination will take place over the entire 150-mile length of the trail.

Various segments of the bike/pedestrian trail will be paved. Typically, wherever the paved condition occurs, the trail is expected to be 8 -12 feet wide. Types of paved surfaces that may be used for the cross-state NRHT bicycle/pedestrian path include asphalt and concrete. In some areas the trail may not be paved. Materials suitable for the bike/pedestrian trail surface should include durable materials such as crushed and compacted limestone.

Some sections of the cross-state NRHT will not be able to use the former railroad corridor because of competing use. In these instances, if negotiations with property owners require the trail alignment to deviate from the former railroad corridor, it may be necessary for the proposed path to be located within a road right-of-way. There could even exist a condition where the proposed bikeway alignment is placed on a shared road and a parallel sidewalk is made available for pedestrians. These types of conditions are seen as temporary solutions for the long-range development of the cross-state trail.

Rationale for Locating the Equestrian Trail

The NRHT is envisioned to be a multi-use trail for its entire cross-state alignment. A significant amount (40%) of the NRHT's overall 150 miles is expected to have segments that include an equestrian trail. The equestrian trail will be located adjacent to, but physically separated from the multi-use bike/pedestrian trail.

A series of criteria was used to determine the proposed location of the equestrian trail. A work session conducted with members of the NRHT, Inc. Steering Committee determined areas across the eight counties where the equestrian trail seemed to function the best. The proposed location of the NRHT equestrian trail segments can be found in the *NRHT Development Guide*, on maps that are included with the description of the individual counties.

A systematic approach was used to determine the proposed location of the equestrian trail. Decisions for the location were based upon:

- Having sufficient width within the former railroad corridor where both a bike/pedestrian trail and an adjacent but separated equestrian trail could co-exist.
- Having sufficient length for each equestrian trail segment

so trail users would have time to conduct a significant length ride. A two-mile ride was determined to be the minimum length.

- The location of the equestrian trail required an ability for the public to have trail access. Typically there would be a trailhead at each end of the equestrian trail.
- The equestrian trail should make as few road crossings as possible. The preferred approach is that when the equestrian trail makes a road crossing, it does so at rural, low volume traffic two-lane roads instead of busy four-lane roads.
- The equestrian trail should have as few conflicts with urbanized areas as possible.

Rationale for Locating Trailheads

The NRHT will require the creation of a number of entry/exit points for public access onto the trail. Factors influencing the location of access points include:

- Each trail entry/exit point will need to be located and designed for convenience and safety.
- Many trail users will to drive to the NRHT. Vehicular access to the trail should be relatively easy. Sites can be designed for vehicle parking adjacent to the trail.

Rationale for Making Community Connections with the NRHT

The NRHT will be an important cross-state bike/pedestrian/horseback highway for Hoosiers and visitors to the state. Its proposed alignment will take it in close proximity of a number of sites of importance including schools, shopping areas, historic districts, hospitals, historic and cultural sites as well as the Historic National Road.

Local communities should be encouraged to make bike/pedestrian connections and where possible equestrian trail connections from the NRHT to these sites of importance.

Connections from the NRHT to adjacent sites may take place by using existing sidewalks. In communities where no sidewalks exist, then new accommodations will need to be made. This may include the creation of a multi-use trail, or creation of a shared road bike way and adjacent sidewalk. An important consideration for all NRHT communities is the creation of a trail network that links the NRHT to sites and locations outside the trail corridor .

Common Corridor Condition

A significant amount of the cross-state NRHT is proposed to utilize former railroad corridor. The proposed alignment within these corridors takes the trail through both urban and rural areas. The condition most common for the proposed NRHT alignment however is when the former railroad corridor travels through rural and undeveloped areas. Often in these areas the

corridor is highly visible because vegetation growing along the edges of the corridor is visually in contrast with the open and low growing agricultural fields next to it. The corridor is also more visible when it is elevated relative to the adjacent land.

The former railroad corridor, which the NRHT is proposed to use, was typically constructed for a single rail line. The base that was constructed to support the rail line was typically elevated. The height of the corridor varied. Sometimes it was constructed at a relatively low height to promote drainage. Higher corridor elevations were constructed to cross rivers, streams and roads. Railroad corridors were often constructed with adjacent drainage swales. Materials such as rails, wood ties and rock ballast, once common when the trains were running, are today for the most part removed. Remnant soil material that today lies under the place where the rails once ran, usually contains contaminants. It is recommended the placement of the trail over these soils be done in a manner that does not disturb the contaminated soils.

Other Types of Conditions

While the common condition previously described makes up a significant portion of the NRHT's proposed alignment, it is not the only occurring condition. The following briefly describes other types of conditions that can be found along the proposed trail alignment.

Railroad Bridges

The former railroad corridors contain a number of railroad bridges, which were constructed in the early 1900's. The bridges allowed trains to cross over roads, streams and rivers. Some of the bridges remain today, others have been purposefully removed. Most of the bridges that are remaining were either constructed of concrete or steel. A few of the remaining bridges are wood trestle bridges. It is recommended that as local communities develop segments of the cross-state NRHT, investigations be performed for the remaining bridges. This should be conducted on a case-by-case basis to determine the bridge's historical significance as well as its structural suitability for use as a trail bridge. Engineering investigations and analysis should also be conducted to evaluate the suitability of the bridge as a trail crossing. The investigations should determine what provisions may be needed for new trail decking on railroad bridges that it is ADA accessible, new railings that meet safety regulations, signage, approaches to the bridges, etc. The public will also need to be protected from hazardous conditions such as rusted or jagged metal edges.

Utilizing Other Trail Systems

The cross-state NRHT alignment is proposed to utilize a series of trails from current trail systems. These systems include the Terre Haute NRHT, People Pathways trails, the Vandalia Rail

Trail, Indy Greenways trails and the Greenfield Pennsy trail. A variety of materials are currently used along these existing trails including crushed limestone and paved asphalt. The Vandalia Rail Trail has a rustic trail still in development and the Terre Haute NRHT has a shared road bikeway at the Indiana State University campus.

Elevated Corridor

As previously mentioned, the former railroad corridor was constructed in some areas with an elevated section. At different points along the former railroad corridor, the height of the corridor varies relative to the adjacent land. In some areas the elevated corridor is pronounced, such as western Clay County, the Henry County communities of Knightstown, Raysville and Lewisville, and the Wayne County community of Cambridge City.

Recessed Corridor

A few areas exist today where the railroad was originally constructed to be located in a recessed corridor. This condition can be found in Henry County near the community of Ogden and in Wayne County west of the community of Centerville. The segment of recessed rail corridor near Ogden represents one of the closest points between the Historic National Road and the proposed alignment of the parallel trail.



QUICK INDEX TO GUIDELINES

- Bike/Pedestrian Trail
- Bike/Pedestrian/Equestrian Trail
- Street Crossings
- Bridge Crossings
- Trailheads
- Amenities

The following pages contain Design Guidelines for the cross-state NRHT. At the end of the Design Guideline section is material presenting a conceptual trail design for eight separate sites along the cross-state trail. One site has been selected for each of the eight NRHT counties because of the impact that particular location could have on the development of the trail.

The eight approaches are conceptual in nature and were prepared to graphically represent how an approach could be implemented in the field. The eight concepts were developed utilizing parameters established in the Design Guidelines.

More detailed information on each of the eight concepts can be found in the individual county binders, Section 4, of the NRHT Development Guide.

1. TRAIL DEVELOPMENT OPPORTUNITY

Description

The cross-state NRHT is envisioned to be a multi-use trail whose design will accommodate a variety of outdoor recreational trail activities. For most of its cross-state run, the proposed trail alignment follows the alignment of former railroad corridors. The 150-mile long trail is expected to have several options for trail development. The following section of the Design Guidelines presents trail options.

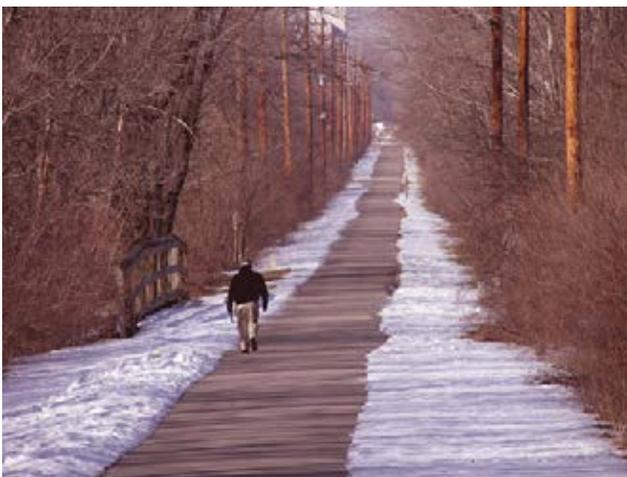
Recommendations

- Utilize consistent identity and wayfinding systems across jurisdictional boundaries.
- Meet or exceed ADA standards for accessibility

1.1 General Discussion



Equestrian trails are an integral component of the NRHT. Photo courtesy of Yvette Rollins.



Multi-use trail in Greenfield, Greenfield Pennsy, part of the NRHT. Photo courtesy of National Road Heritage Trail, Inc.



Multi-use trail with parallel equestrian trail. Photo courtesy of Storrow Kinsella Associates Inc.

1. TRAIL DEVELOPMENT OPPORTUNITY

Description

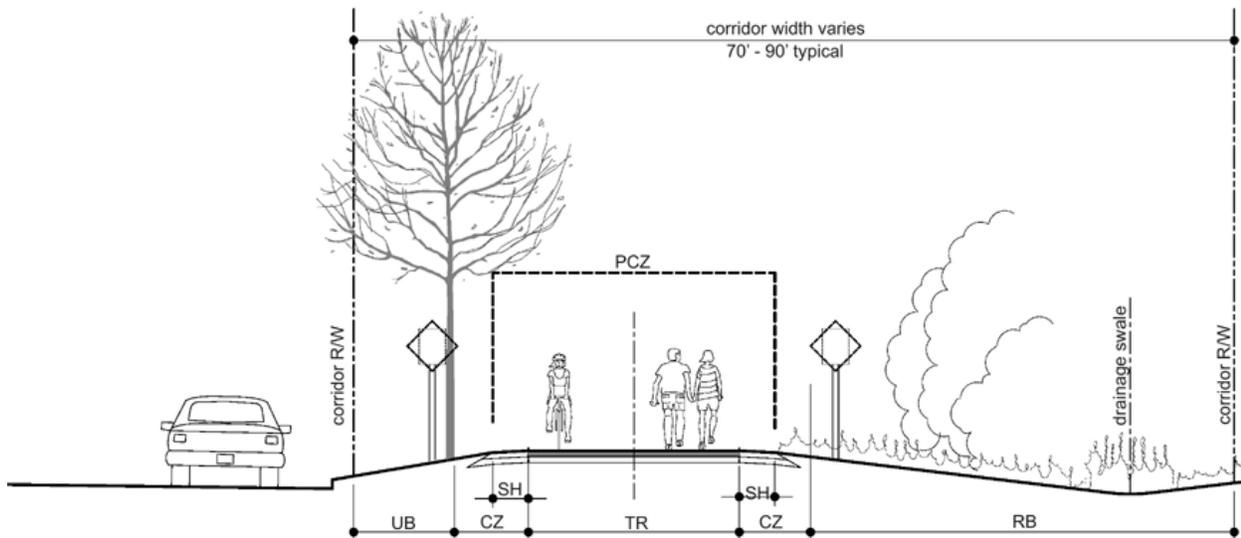
The multi-use trail, otherwise referred to in the NRHT Development Guide as the combined bicycle/pedestrian trail is a shared use path. This type of trail is physically separated from motorized vehicular traffic and generally has an alignment that follows the former railroad corridor. This approach is the most common application for the NRHT across the state.

Recommendations

- Utilize consistent identity and wayfinding systems along the trail across jurisdictional boundaries.
- Meet or exceed Americans with Disabilities Act (ADA) standards for accessibility.
- Provide for multiple user types, including bicyclists, pedestrians, skaters, wheelchair users, joggers, and other non-motorized users.

1.2 Multi-Use Trail (Bicycle/Pedestrian Use)

- Recommended path widths are provided in the table below.
- A minimum 2-foot wide graded area with a maximum 1: 6 slope should be maintained adjacent to both sides of the path (5% desirable). However, 3 feet or more is desirable to provide clearance from trees, poles, walls, fences, guardrails or other lateral obstructions. Where the path is adjacent to slopes steeper than 1: 3, a wider separation should be considered.
- When there are side slopes adjacent to the path, a minimum 5-foot separation from the edge of the path to the top of the slope is desirable. Depending on the height of the embankment and condition at the bottom of the slope, a physical barrier, such as dense shrubbery or railing may need to be provided.



Key	Design Guidelines	Notes
CZ (Clear Zone)	3' min - 6' max horizontal clearance	N/A
PCZ (Pedestrian Clear Zone)	8' min. vertical clearance x trail width where open to the sky.	Vertical clearance should be greater for bridge underpasses or tunnels.
TR (Trail)	Paved trail 10' min—12' desirable width Unpaved trail 8' min—10' to 12' desirable width	Paved trail recommended for high traffic areas. Unpaved trail—crushed limestone suitable for bicycle and pedestrian travel.
RB (Rural Buffer)	Width varies	Naturalized meadow ground cover to reduce maintenance or for habitat.
SH (Shoulder)	2' min. width	Crushed stone or mown turf.
UB (Urban Buffer)	Width varies	Mown turf and shade trees where maintainable and in context.

1. TRAIL DEVELOPMENT OPPORTUNITY

Description

The Bicycle/Pedestrian/Equestrian Trail occurs when a multi-use path is located next to an equestrian path. Both paths are physically separated from motorized vehicular traffic. The combined trail is proposed to generally follow the alignment of the former railroad corridor. Approximately 40% of the proposed cross-state NRHT alignment has been highlighted as having good potential for parallel multi-use and equestrian trails.

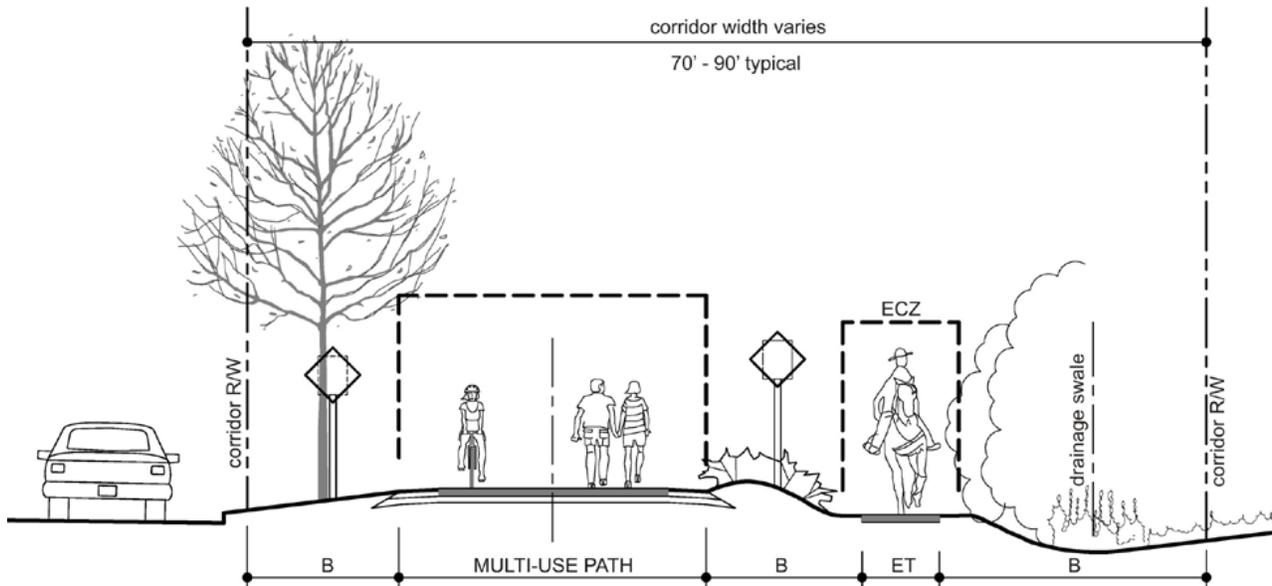
Recommendations

- Engage an equestrian trail specialist when preparing the final trail design in order to incorporate features that promote horse/rider and trail user safety.
- The equestrian trail is proposed to be paired with bicycle/pedestrian trails for areas shown on the county maps.
- The combined trails are intended to take place when space is available to allow appropriate separation of the parallel paths.
- Provide a vertical clear-zone height per the table below.
- Provide a clear-zone free of trees, shrubs, and debris for

1.3 Multi-Use Trail and Equestrian Trail

the equestrian trail as shown in the table. Accommodate a wider clear-zone if possible.

- Provide two (one for each direction) horse dismount boxes at all bridge and road crossings as well as at underpasses.
- Provide equestrian hitching posts at key locations.
- Provide alternate equestrian crossings at bridge locations.
- Provide appropriate signage and wayfinding along the trail.
- Stabilize or amend unsuitable soil conditions.
- Equestrian trails should be composed of materials other than asphalt, concrete, or gravel.



Key	Design Guidelines	Notes
B Buffer	5' desirable minimum	Landscape plantings, grade change, and/or fencing can be used to create separation.
ECZ (Equestrian Clear Zone)	15' min. vertical clearance x 10' min. width desirable	Vertical clearance should be greater for bridge underpasses or tunnels.
ET (Equestrian Trail)	6' min. desirable width.	Compacted earth.
MUP (Multi-Use Path)	See previous Design Guideline for detail.	

1. TRAIL DEVELOPMENT OPPORTUNITY

Description

The cross-state NRHT is a 150-mile long trail that links eight Indiana counties and 30 communities. Its proposed alignment takes it in close proximity to town centers, population centers, business/commercial areas, schools, and a number of sites of interest.

The trail presents a major opportunity for the public to have access to these areas by means other than motor vehicle. However, alternative transportation access to many of these sites will require physical connections between the NRHT and the various sites.



A sidewalk may serve as a connection to the NRHT. Photo courtesy of Storrow Kinsella Associates Inc.

1.4 Trail Development Connections (Overview)

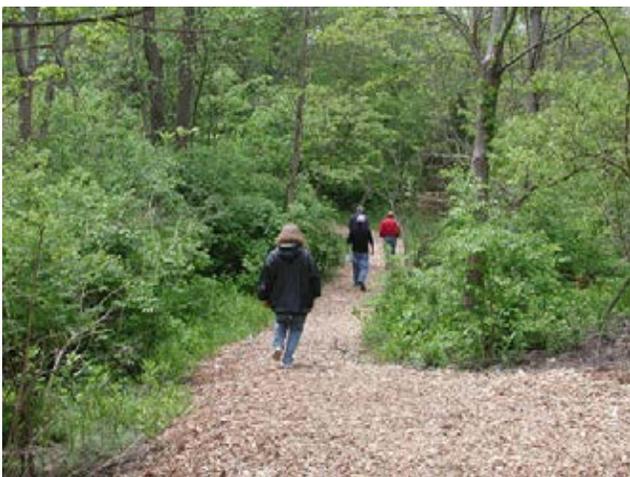
There also will be instances where the cross-state NRHT will deviate from its primary alignment with the former railroad corridor. In these instances, connections will be required to link the trail back to its proposed alignment with the former railroad corridor.

Recommendations

- Connections typically link close destinations to the larger cross-state NRHT system.



A bike route or bike lane may serve as a connection to the NRHT. Photo courtesy of Storrow Kinsella Associates Inc.



Connections to local destinations may be with other trails. Photo courtesy of Storrow Kinsella Associates Inc.



This connection to a recreation center, from the Vandalia Rail Trail, is a great example of connectivity. Photo courtesy of Storrow Kinsella Associates Inc.

1. TRAIL DEVELOPMENT OPPORTUNITY

Description

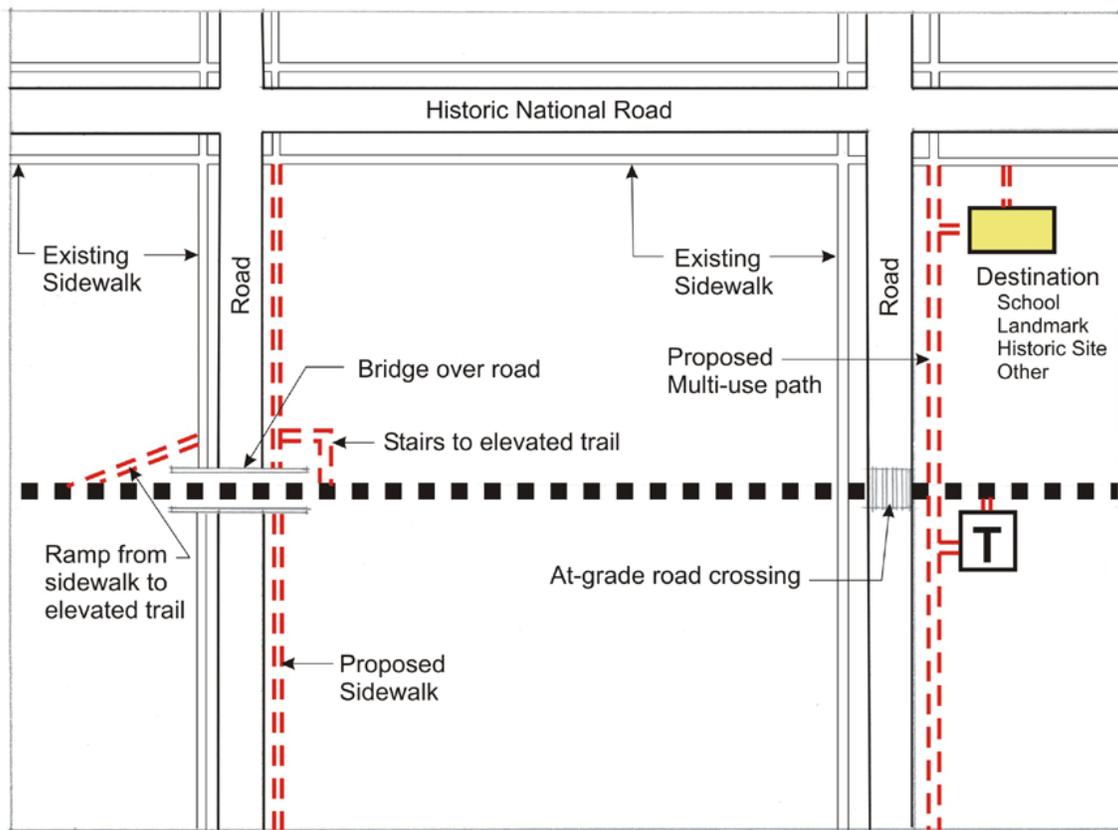
Frequent connections should be made between the cross-state NRHT and its adjacent communities. Particularly to sites of interest that may exist within the community. Where possible, the preferred type of connection is a multi-use path (pedestrian and bicycle path) that will allow NRHT users the ability to have access to a variety of sites.

Connections should be incorporated into the design and layout of neighborhoods and nearby destinations. Connections can even utilize existing drainage and utility corridors if easements allow dual use.

1.4a Multi-Use Trail Connecting with the NRHT

Recommendations

- Bollards or physical barriers may be necessary to restrict vehicular traffic from accessing the connection or the trail.
- Separate pedestrian and street traffic where the sidewalk is confined (tunnels and bridges) and close to the road. Separate with a railing or barrier that measures at least 42 inches tall.
- Provide good sight distances in underpasses.
- Provide good lighting and ventilation in tunnels and design so that users may see the ends of the tunnels.
- Provide handrails where appropriate along edges.



When connections do not exist, seek to develop sidewalks and multi-use trails to link the NRHT with nearby destinations

LEGEND

- ■ ■ ■ NRHT
- ⓧ Trailhead
- == NRHT Connections

1. TRAIL DEVELOPMENT OPPORTUNITY

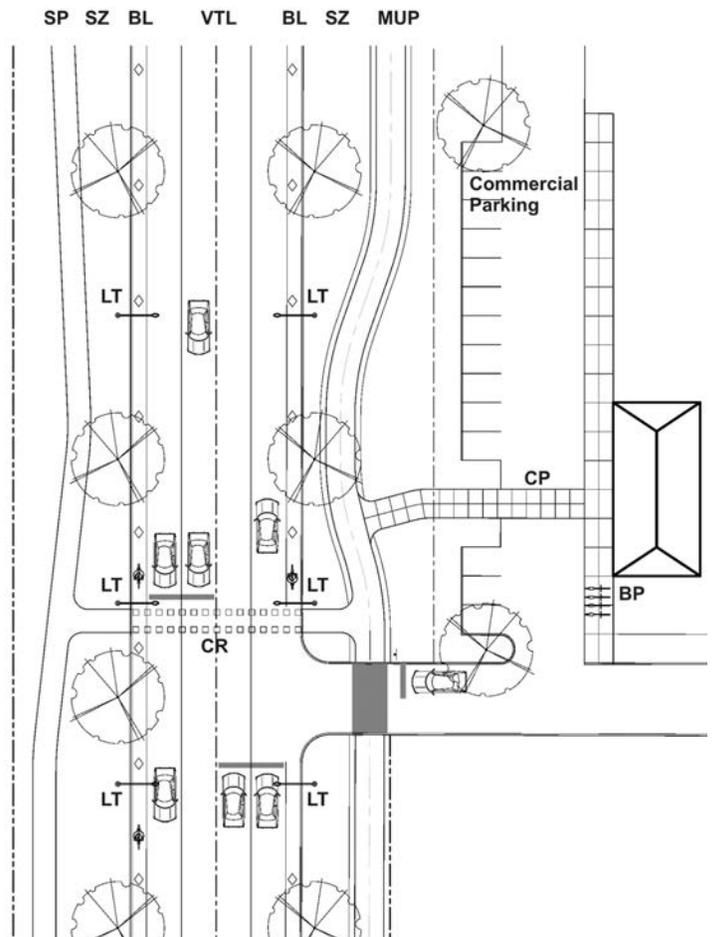
Description

When use of the former railroad corridor right-of-way is discontinuous, it is recommended that the trail continuity be maintained by utilizing the right-of-way of a parallel street or road. In those circumstances, if existing sidewalk is available for pedestrian use, it may need to be widened to make it a multi-use trail that can accommodate bicycle traffic as well. Or, a new multi-use path should be constructed if possible.

Recommendations

- Provide trail connectivity to overcome obstacles or gaps in the corridor right-of-way.
- Utilize existing road right-of-way and sidewalks
- Utilize consistent identity and wayfinding systems across jurisdictional boundaries and to provide trail continuity.

1.4.2 Multi-Use Trail Along Collector Roads



Key	Design Guidelines	Notes
BL Bike Lane	5' min width recommended-varies depending on traffic speed and volume.	
BP Bike Parking	Encourage the provision of bike parking at destinations.	
CP Connector Path	8' min width if bike lane provided in the roadway-10' width desirable for shared bike/pedestrian use separated from roadway.	Should be consistent width and provide connectivity to adjacent destinations.
CR Crossing	Traffic volume and speed will determine crossing design. Shown here is "yield to pedestrian" signage with pedestrian activated flashers	Recommend treating multi-modal crossings like "school zone crossings".
CS/S Collector Sidewalk/Sidepath	8' min width if bike lanes provided.	Provide connectivity to adjacent destinations.
MUP Multi-Use Trail	See Multi-Use Trail Guideline.	Should be consistent width and provide connectivity to adjacent destinations.
SZ Separation Zone	Varies in width—accommodates utilities, lights (LT) and urban forest.	

1. TRAIL DEVELOPMENT OPPORTUNITY



Sidewalks provide an important role in connecting neighborhoods and points of interest to the cross-state NRHT.

1. TRAIL DEVELOPMENT OPPORTUNITY



A rural/suburban bike lane is a portion of the road that has been designated and designed for the exclusive use of bicycles with distinct signage and pavement markings on a roadway with shoulder.

1.4.3 Sidewalk

Description

An urban residential sidewalk is a hard surface path along a street with curb and gutter, ideally separated from traffic with a tree lawn or corner curb extensions.

Recommendations

- Ideally the pedestrian would be separated from traffic with a tree lawn.
- Where there is space, a six-foot pedestrian way is preferred.

1.4.4 Bicycle Route/Lane

Description

This condition is seen as a temporary solution for the cross-state NRHT and should be used only when the multi-use trail alignment cannot take place outside of the road right-of-way. A careful approach is required wherever this application is used because it brings bicycle riders in closer contact with vehicular traffic.

Recommendations

- Establish the bike lane with appropriate pavement markings and signage along the connector street. This may be accomplished by expanding existing pavement width, reducing the width of vehicle lanes, or reducing parking in order to accommodate bike lanes.
- Bicycle-safe drainage grates should be used, smooth, swept pavement, and traffic signals should be responsive to bicyclists.
- Regular maintenance of bicycle lanes will need to be a priority since bicyclists are unable to use a lane with potholes, debris, or broken glass.
- Establish bicycle lanes on each side of the street.
- Where possible provide additional traffic calming measures such as:
 - Full street closures
 - Half street closures
 - Median barriers
 - Forced turn islands
 - Vertical changes in the adjacent roadway
 - Roundabouts
 - Chicanes, lateral shifts, chokers
 - Narrowed center islands

1. TRAIL DEVELOPMENT OPPORTUNITY

Description

There may be instances where the cross-state NRHT is located in close proximity to an active railroad line. Situations may occur where the proposed alignment of the cross-state NRHT is parallel and located side-by-side with the active rail line.

Recommendations

- Conduct trail alignment discussions between those developing the trail, representatives from the local community and officials from the railroad company. Address all pertinent issues such as: alignment, separation, liability, safety, security and maintenance responsibilities.
- A variety of solutions have been developed across the country for situations where a trail was to be developed adjacent to an active rail corridor. Each cross-state NRHT co-location project should therefore be evaluated and addressed on a site-by-site basis—utilizing the input of the local community and the railroad.
- Consult available reference materials to see how other communities have approached and resolved their trail/rail co-location issues.
- References should include, but not be limited to the following:

“Rails-With-Trails: Design, Management, and

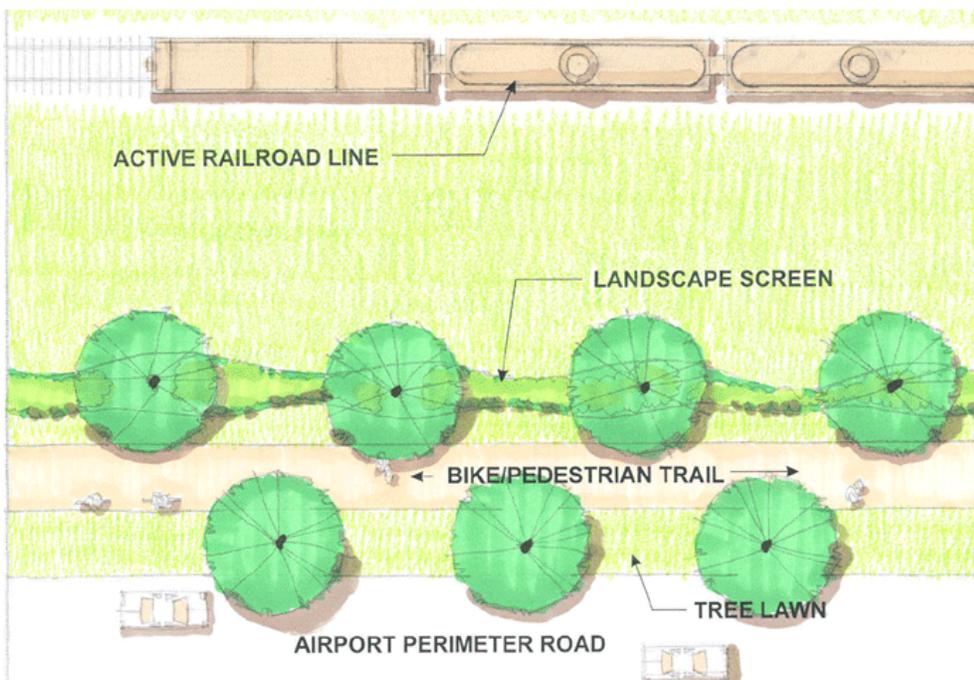
1.4.5 Railroad Co-location

Operating Characteristics of 61 Trails Along Active Rail Lines”, Rails-To-Trails Conservancy, November 2000

“Rails-With-Trails: Lessons Learned, Literature Review, Current Practices, Conclusions”.
U.S. Department of Transportation, Federal Highway Administration, Federal Railroad Administration, National Highway Traffic Safety Administration, Federal Transit Administration, August 2002



This trail, in Portland Maine, is located in relatively close proximity to an active rail. Source: Storrow Kinsella Associates Inc



This plan shows a scenario in Marion County where there is additional right of way which makes implementing a trail easier. In other situations, an active railroad reduces the available right of way for trail use. Plan view showing proposed improvements. See Marion County Section 4, for more information regarding this conceptual solution. Source: Storrow Kinsella Associates Inc

2. CROSSING OPPORTUNITY

Description

The cross-state NRHT will make a number of road crossings in each of the eight counties in which it will be located. Many of these crossings will be at-grade crossings of roads and highways. Other crossings will be made over bridges that span both waterways and roads. These bridges may be ones originally constructed by the railroad or new bridges that specifically are constructed for trail purposes.

Recommendations

- Utilize consistent identity and wayfinding systems across jurisdictional boundaries.
- Meet or exceed ADA standards for accessibility

2.1 General Discussion



This is an example of a newly constructed bridge for a trail crossing a stream. Photo courtesy of Storrow Kinsella Associates Inc.



Relocated bridge, now used for the Clear Creek Trail in Bloomington, Indiana. Photo courtesy of Storrow Kinsella Associates Inc.



Road crossing, with signage for both vehicles and trail users. Photo courtesy of Daniel Burden.

2. CROSSING OPPORTUNITY

Description

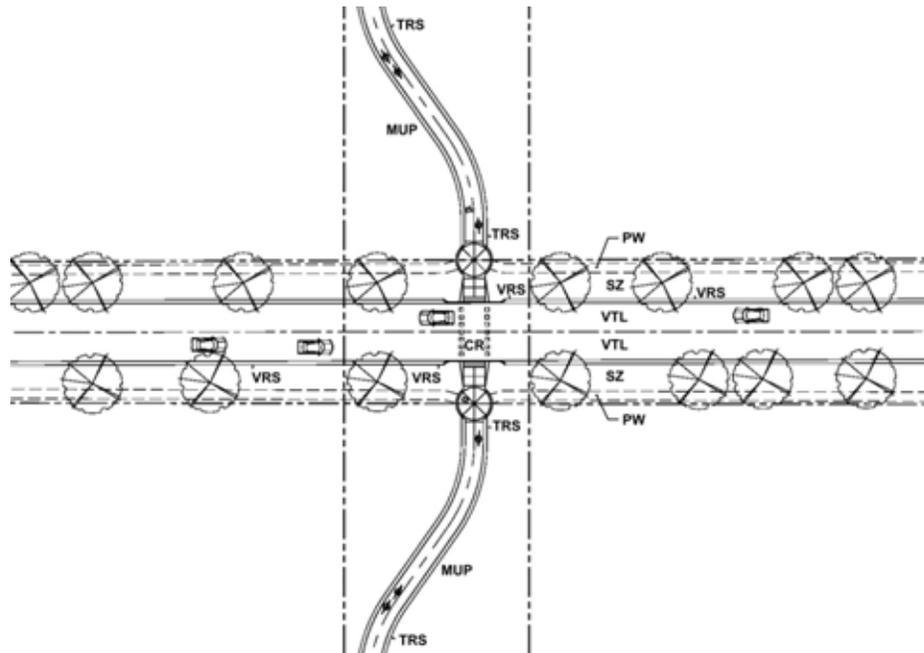
The cross-state NRHT will make a number of at-grade road crossings of two-lane roads. It is assumed that many of these roads contain relatively low volumes of traffic. A large percentage of all the two-lane road crossings that the cross-state NRHT will encounter will be in suburban and rural areas.

Recommendations

- Ramps may be necessary where at-grade crossings are not possible.

2.1.2 Two-Lane Road Crossing

- Detectable warnings allow visually impaired to identify edges.
- Pedestrians walking outside of marked crosswalks are less likely to be seen by drivers
- Maneuvering on steep grade changes may be hazardous for people with mobility impairments
- Ramps should have minimal cross slope so users do not have to negotiate a steep grade and cross-slope simultaneously



Key	Design Guidelines	Notes
BL Bike Lane	5' min width recommended-varies depending on traffic speed and volume.	
BP Bike Parking	Encourage the provision of bike parking at destinations.	
CP Connector Path	8' min width if bike lane provided in the roadway-10' width desirable for shared bike/pedestrian use separated from roadway.	Should be consistent width and provide connectivity to adjacent destinations.
CR Crossing	Traffic volume and speed will determine crossing design.	Recommend treating multi-modal crossings like "school zone crossings".
CS/S Collector Sidewalk/Sidepath	8' min width if bike lanes provided.	Provide connectivity to adjacent destinations.
MUP Multi-Use Trail	See Multi-Use Trail Guideline.	Should be consistent width and provide connectivity to adjacent destinations.
SZ Separation Zone	Varies in width—accommodates utilities, lights (LT) and urban forest.	
VTL Vehicle Travel Lane	Width varies. Can reduce to 10-1/2' to accommodate alternative transportation modes	Varies

2. CROSSING OPPORTUNITY

Description

Multi-lane road crossings will occur at a number of locations where the cross-state NRHT alignment is proposed to cross busy roads and highways. It is recommended that appropriate safety measures are implemented at crossings where traffic volume and/or speeds warrant. On wide streets (multiple lanes) it is recommended that a refuge is provided for trail users, to shorten the crossing distance in busy traffic conditions.

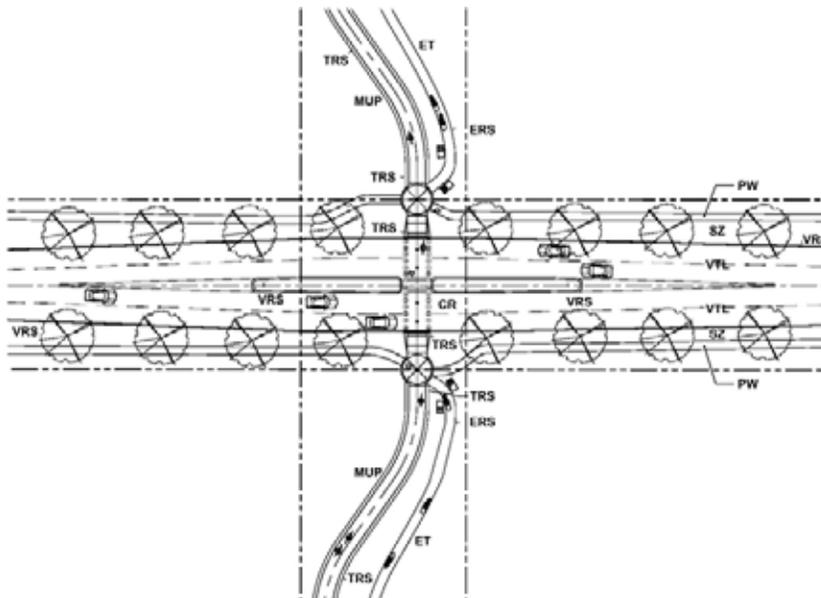
Recommendations

- Ramps may be necessary where at-grade crossings are not possible.
- Detectable warnings allow visually impaired to identify edges.

2.2 Multi-Lane Road Crossing

- Pedestrians walking outside of marked crosswalks are less likely to be seen by drivers
- Ramps should have minimal cross slope so users do not have to negotiate a steep grade and cross-slope simultaneously.
- Multi-use trail crossings may be paired with equestrian crossings if the rider dismounts and leads their horse across.
- Provide appropriate regulatory signs and lights at crossings.
- Crossings should meet or exceed ADA design guidelines for accessibility.
- Consider installing flashing signals where conditions apply; possible types include: Overhead crosswalk signals and imbedded flashing lights.

- At equestrian crossings, avoid flashing signals embedded in the asphalt.



Key	Design Guidelines	Notes
BL Bike Lane	5' min width recommended-varies depending on traffic speed and volume.	
BP Bike Parking	Encourage the provision of bike parking at destinations.	
CP Connector Path	8' min width if bike lane provided in the roadway-10' width desirable for shared bike/pedestrian use separated from roadway.	Should be consistent width and provide connectivity to adjacent destinations.
CR Crossing	Traffic volume and speed will determine crossing design.	Recommend treating multi-modal crossings like "school zone crossings".
CS/S Collector Sidewalk/Sidepath	8' min width if bike lanes provided.	Provide connectivity to adjacent destinations.
MUP Multi-Use Trail	See Multi-Use Trail Guideline.	Should be consistent width and provide connectivity to adjacent destinations.
SZ Separation Zone	Varies in width—accommodates utilities, lights (LT) and urban forest.	
VTL Vehicle Travel Lane	Width varies. Can reduce to 10-1/2' to accommodate alternative transportation modes	Varies

2. CROSSING OPPORTUNITY

Description

Bridges are common trail structures used to traverse waterways or barriers, such as roadways, railways, developed or natural features. Accommodation is needed for the combined multi-use and equestrian trails where elevation changes take place.

At some locations along the proposed cross-state NRHT alignment, a new bridge may be the most effective, most safe and most cost-effective method for trail users to cross over a potential trail barrier below. A new bridge may be considered for use where a previous railroad bridge has been removed. Each site where a new bridge may be considered for use, should first be investigated to determine the merits for a new bridge.

2.4.1 New Bridge Construction

Recommendations

- Prepare a trail bridge feasibility study to investigate existing site conditions and potential new construction and environmental impacts, potential design options, permitting required and estimates of construction costs. Conduct the study early in the process to make the best determination how to proceed regarding new bridge construction.
- Incorporate appropriate bicycle, pedestrian and equestrian provisions into new bridge designs to facilitate safety and trail user comfort.
- Obtain input from equestrian trail specialists to determine specific trail needs for each bridge location.
- Approaches to Bridges should be aligned so that users can adequately see and prepare for the transition between the trail and bridge. Steep ramps or steps should be avoided at the Bridge approach. On shared use paths, bridges should be as wide as the path.
- Bridges should be flush with trail surfaces free of protruding edges or dips.
- Two horse mounting and dismounting blocks should be provided on either side of the bridge for the equestrian trail users.
- Bridges should not be arched, but have flat grades.

Key	Description	Design Recommendations	Recommended Materials
BR	Bridge Railing	Min Height For Bicyclists 54" Min. Height For Pedestrians 42" Min. Height For Equestrians—Determined with input from equestrian trail specialist	Treated wood, recycled composite materials, painted steel
EQ	Equestrian Trail	Trail Width 6'-12' Min. Clear Zone Width 10' Min. Clear Zone Height 15'	Existing vegetation and soils. Soil amendments may be required based on local conditions
FD	Ford	Approach Grades Should be Less than 10%, Clear Stream Bed of Large Boulders and Debris, 1-3% Cross Slopes Max. Provide water quality testing prior to and after construction and obtain local and federal approvals.	Gravel Concrete textured for slip resistance
MB	Mounting/ Dismounting Blocks	2'-4' Tall, 3' Preferred	Ganged timber sections, log sections, proprietary modular units
BPW	Bridge Pedestrian Way	See Also Pedestrian Way Recommendations 10 feet	Varies, should be consistent along entire trail corridor
SH	Shy Zone	2' Width	Crushed stone
RE/PP	Riparian Edge/ Pausing Point	6' Equestrian trail with 10' Clear Zone (See Also Roadway Crossing for Pausing Point Recommendations)	Plant materials such as willows and cool season grasses.
WS/ RD	Watershed/Roadway	Provide water quality and habitat enhancement for watershed	

2. CROSSING OPPORTUNITY

Description

Bridges are common trail structures used to traverse waterways or barriers, such as roadways, railways, developed or natural features. Accommodation is needed for the combined multi-use and equestrian trails where elevation changes take place.

A relocated bridge is an existing bridge that has been removed from its original place of use and physically relocated to a new location along the trail's proposed alignment. Before making the final decision to use a relocated bridge for the trail, it will need to be determined the benefits and the liabilities associated with relocating a safe and structurally sound bridge for trail use.

At some locations along the proposed cross-state NRHT alignment, a relocated bridge may be the most effective, most safe and most cost-effective method for trail users to cross over a potential trail barrier below. A new bridge may be considered for use where a previous railroad bridge has been removed. Each site where a new bridge may be considered for use, should first be investigated to determine the merits for a new bridge.

BR-Bridge Railing

- Handrails should be designed to protect all bridge users including bicyclists, equestrian, pedestrian, and special needs users.

EQ-Equestrian Trail

- Consider width of span in the bridge design. Equestrian users may not want to cross wide spanning bridges so alternative paths may be required.
- Bridge railings should be designed to protect equestrian riders as they cross a bridge. Obtain input from equestrian trail expert to determine appropriate height of rails.
- May pair equestrian trail with the bicycle/pedestrian trail if appropriate separation is provided.
- Encourage environmental stewardship.

FD-Ford

- Stream fords should be sited to maximize existing stream conditions. Consideration for existing water flow rates and nearby erosion issues should be analyzed prior to locating and constructing fords. Any construction within the riparian zone should enhance stream habitat, water quality, and erosion control.

Mounting Blocks

- Provide two horse mounting blocks on either side of the bridge.

2.4.2 Relocated Bridge

Recommendations

- Prepare a trail bridge feasibility study to investigate existing site conditions, suitability of bridge candidates, potential construction and environmental impacts, other bridge design options, permitting required and estimated costs. Conduct the study early in the process to make the best determination how to proceed regarding the use of a relocated bridge.
- Obtain input from equestrian trail specialists to determine specific trail needs for each bridge location.
- Approaches to Bridges should be aligned so that users can adequately see and prepare for the transition between the trail and bridge. Steep ramps or steps should be avoided at the Bridge approach. On shared use paths, bridges should be as wide as the path.
- Bridges should be flush with trail surfaces free of protruding edges or dips.
- Two horse mounting and dismounting blocks should be provided on either side of the bridge for the equestrian trail users.
- Bridges should not be arched but have flat grades.

BPW-Bridge Pedestrian Way

- Bridge railings should be designed to protect equestrian riders as they cross a bridge. Each bridge should be evaluated on a case-by-case basis by equestrian trail experts to help determine the appropriate height.
- May pair equestrian trail with the bicycle/pedestrian trail if appropriate separation is provided.

BCZ-Bridge Clear Zone

- Minimum 2-foot clearance on both sides.



Relocated bridge, now used for the Clear Creek Trail in Bloomington, Indiana. Photo courtesy of Storrow Kinsella Associates Inc.

2. CROSSING OPPORTUNITY

Description

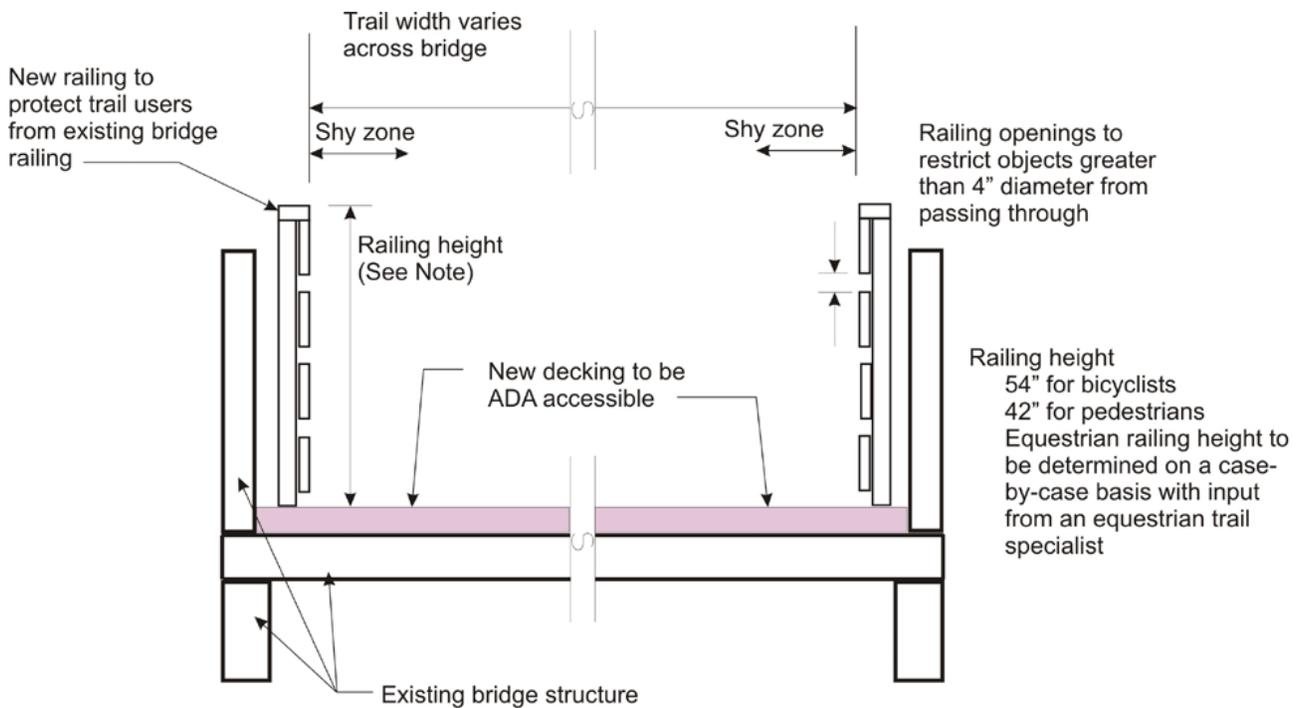
Bridges are common trail structures used to traverse waterways or barriers, such as roadways, railways, developed or natural features. Accommodation is needed for the combined multi-use and equestrian trails where elevation changes take place.

A rehabilitated bridge is an existing bridge along the former railroad corridor that has been enhanced or altered to make it suitable for use as a trail bridge. Prior to its use, it will need to be determined what improvements may be required for each bridge in-order to provide a safe and structurally sound bridge for trail use.

2.4.1.3 Rehabilitated Bridge

Recommendations

- The initial step is to have a trail bridge feasibility study prepared that investigates existing site conditions, structural considerations, potential construction and environmental impacts, options for rehabilitating the existing bridge, permitting required and estimated construction costs. Conduct the study early in the process to make the best determination how to proceed regarding the possible bridge rehabilitation.
- Obtain input from equestrian trail specialists to determine specific trail needs for each bridge location such as approaches, bridge decking and appropriate rail height.



Bridge Cross-Section

2. CROSSING OPPORTUNITY

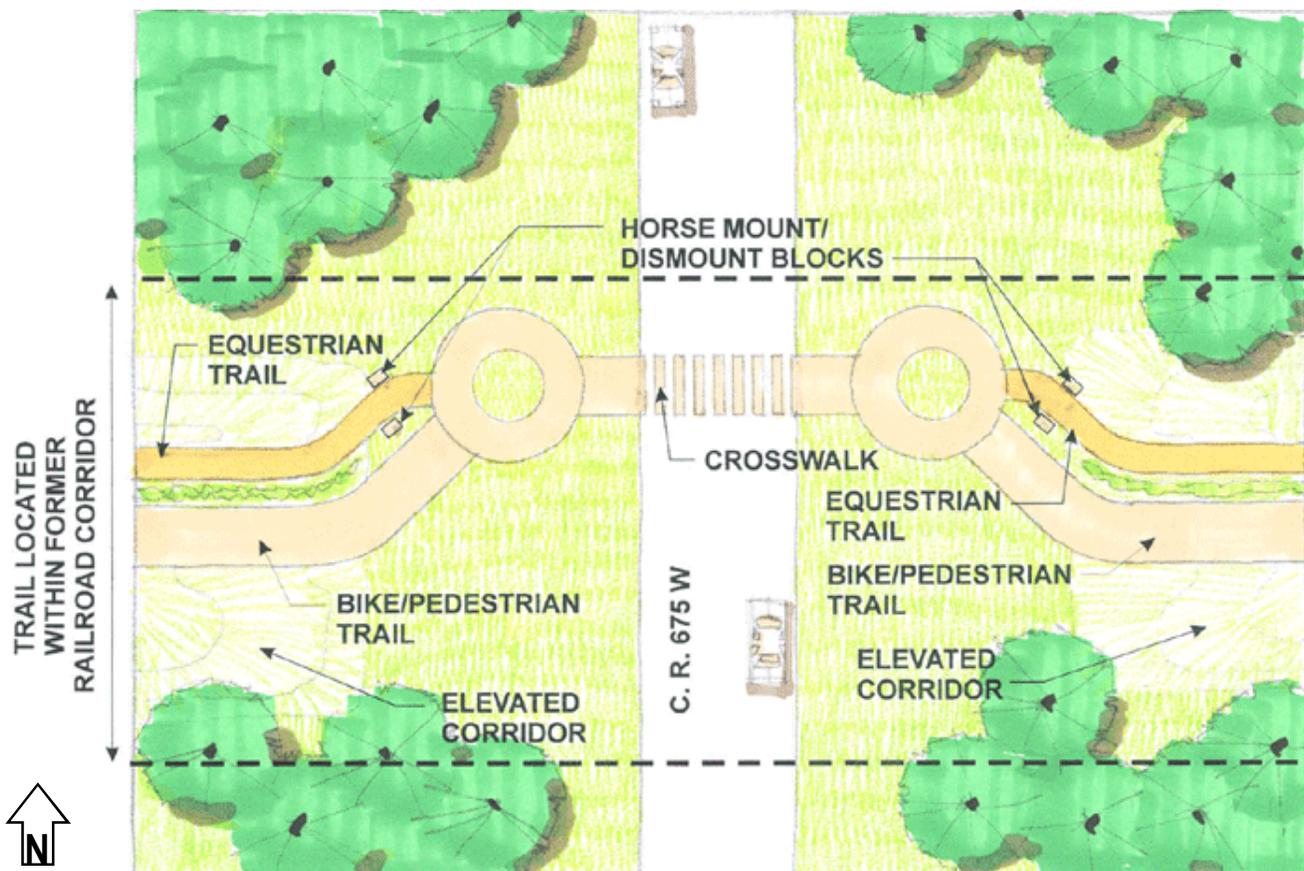
2.4.4 Ingress/Egress at Former Bridge Crossing

Description

There are expected locations along the cross-state NRHT where a former railroad bridge that once existed over a road below will not be replaced. At these sites it may be desirable for the trail to make an at-grade road crossing where the public can have ingress to the trail or egress from the trail.

Recommendations

- Provide ADA accessible means for trail users to travel from the trail at the top of the elevated corridor to the grade at street level.
- Incorporate Design Guideline recommendations for crosswalks to promote safe crossings.
- Encourage community connections to the trail. Connecting sidewalks and multi-use trails should be located within street right-of-ways where possible.



Plan view of the proposed concept. Source: Storrow Kinsella Associates Inc



3. GENERAL DESIGN

3.1 General Design Overview

Description

It will be important to incorporate features along the cross-state NRHT proposed alignment to help the public have a more enjoyable trail experience.

Recommendation

- Incorporate benches at appropriate locations such as trailheads, rest areas and overlooks.
- Provide shade for seating areas.
- Incorporate wayfinding and interpretive signage at key locations.
- The use of landscaping at trailheads, and gateways into communities can enhance the visual character of the trail.
- Encourage the use of public art at key areas along the trail. These sites include trailheads and public ingress/egress points.
- Utilize existing grain silos located along the trail in rural areas as wayfinding for trail users. Investigate the possibility of painting the silos.



Amenities can add to the trail users experience.

3. GENERAL DESIGN

Description

Many using the NRHT will drive to a location where they can safely park their car while recreating on the trail. The location of parking and public trail access will be important for the NRHT's success. Trailheads located in close proximity to the multiuse trail will provide areas for the public to park their vehicles, and gain access for biking and pedestrian activities.

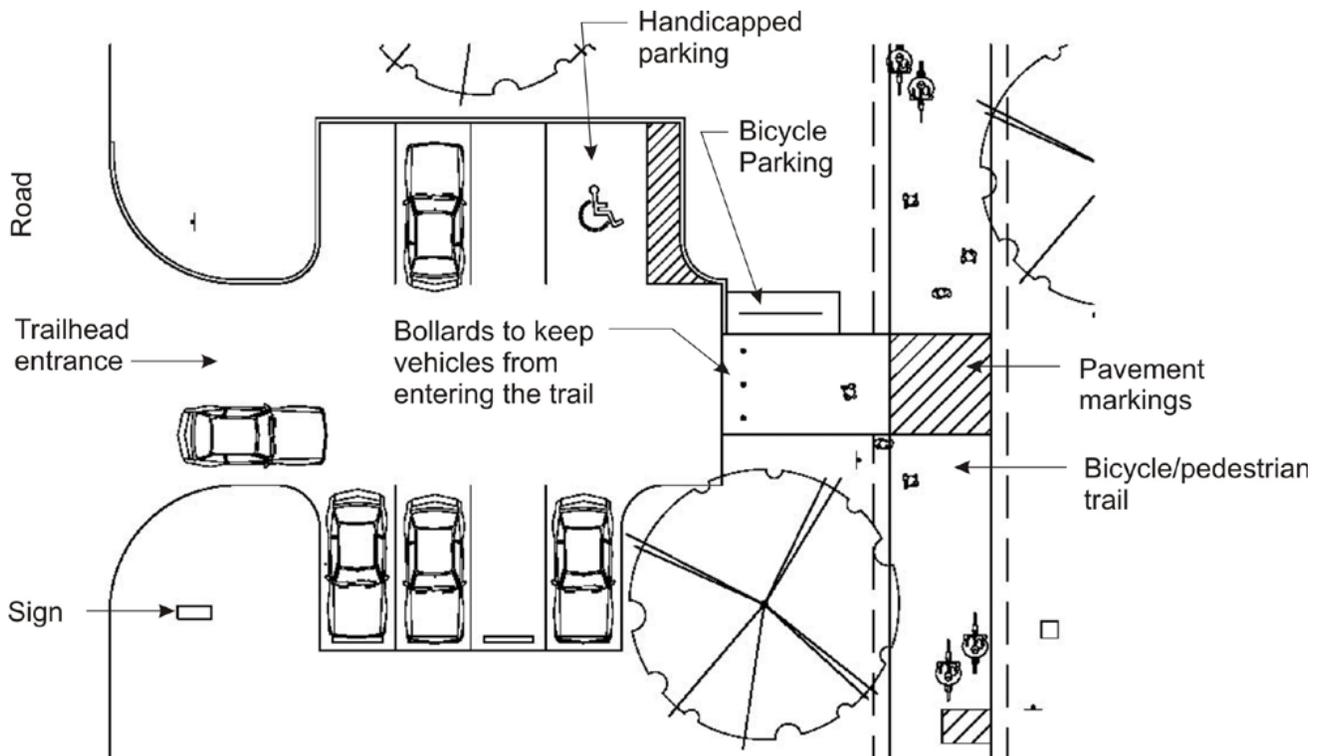
Recommendations

- Trail users require warning through design techniques or warning devices that they are entering a roadway.
- Bollards limit vehicular access to the trail.
- Parking should accommodate trail users.
- Consideration should be given to the different types of potential vehicular users and turning radii for each type.
- Provide amenities at trailheads to include water for humans and animals, seating, equestrian hitching posts air servicing equipment trash receptacles picnic tables.
- Provide shade and seating areas where possible.
- Provide bicycle parking areas.

3.2 Trailhead for the Multi-Use Trail



This trailhead serves pedestrians and bicycles in Greenfield, Indiana. Photo courtesy of Storrow Kinsella Associates Inc.



3. GENERAL DESIGN

Description

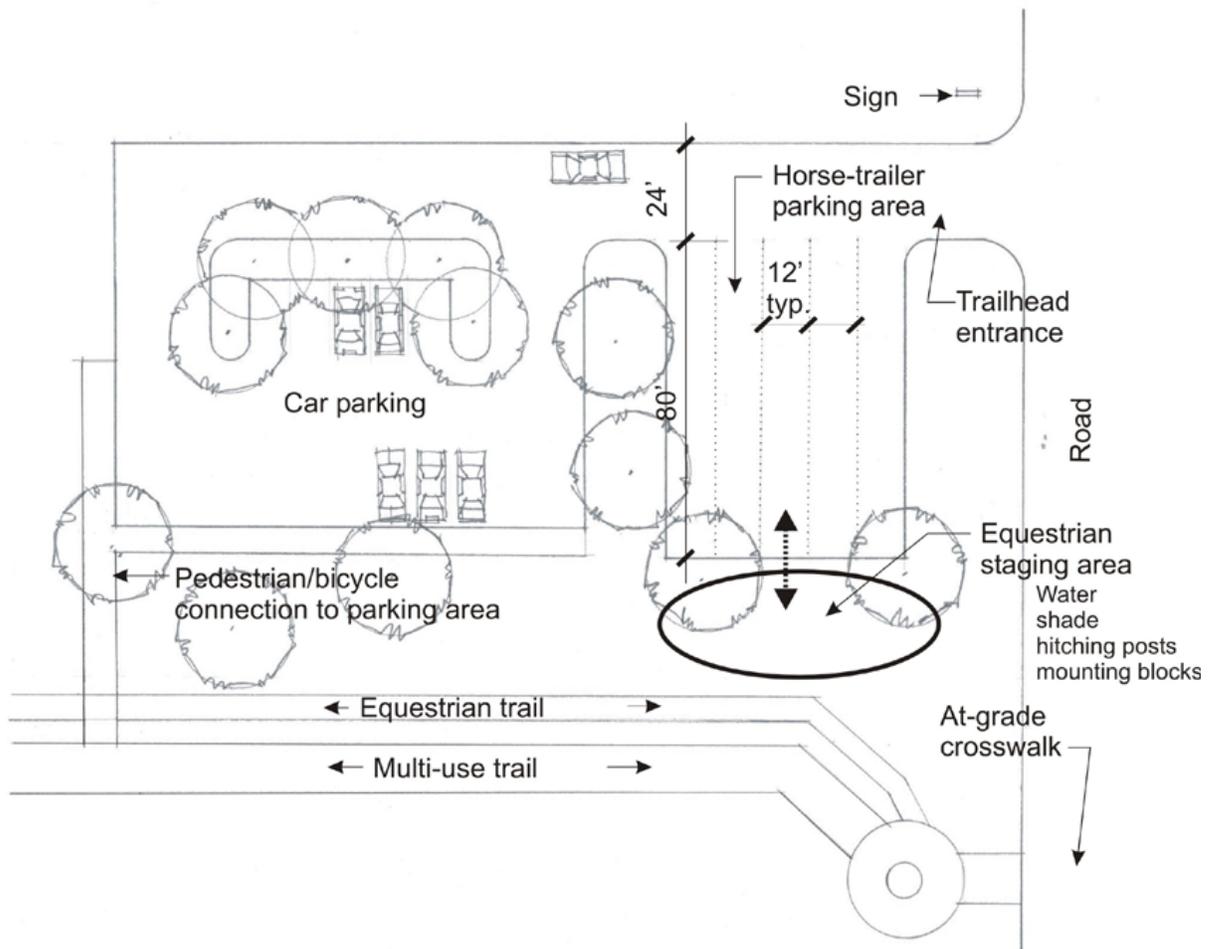
It will be important that trail ingress and egress be made available to the public at various locations. The access points must take into account who will be using the trail, whether it is bicyclists, pedestrians or equestrians. This is especially significant for locations where the equestrian trail occurs

Recommendations

- Trail users require warning through design techniques or warning devices that they are entering a roadway.
- Bollards limit vehicular access to the trail.
- Parking should accommodate trail users.
- Consideration should be given to the different types of vehicles that potentially may use the parking area and turning radii for each type.

3.3 Trailheads Multi-Use Trail Combined with Equestrian Trail

- Provide amenities at trailheads to include water for humans and animals, seating, equestrian hitching posts air servicing equipment trash receptacles picnic tables.
- Provide shade at seating areas and resting points for trail users and horses.



3. GENERAL DESIGN

Description

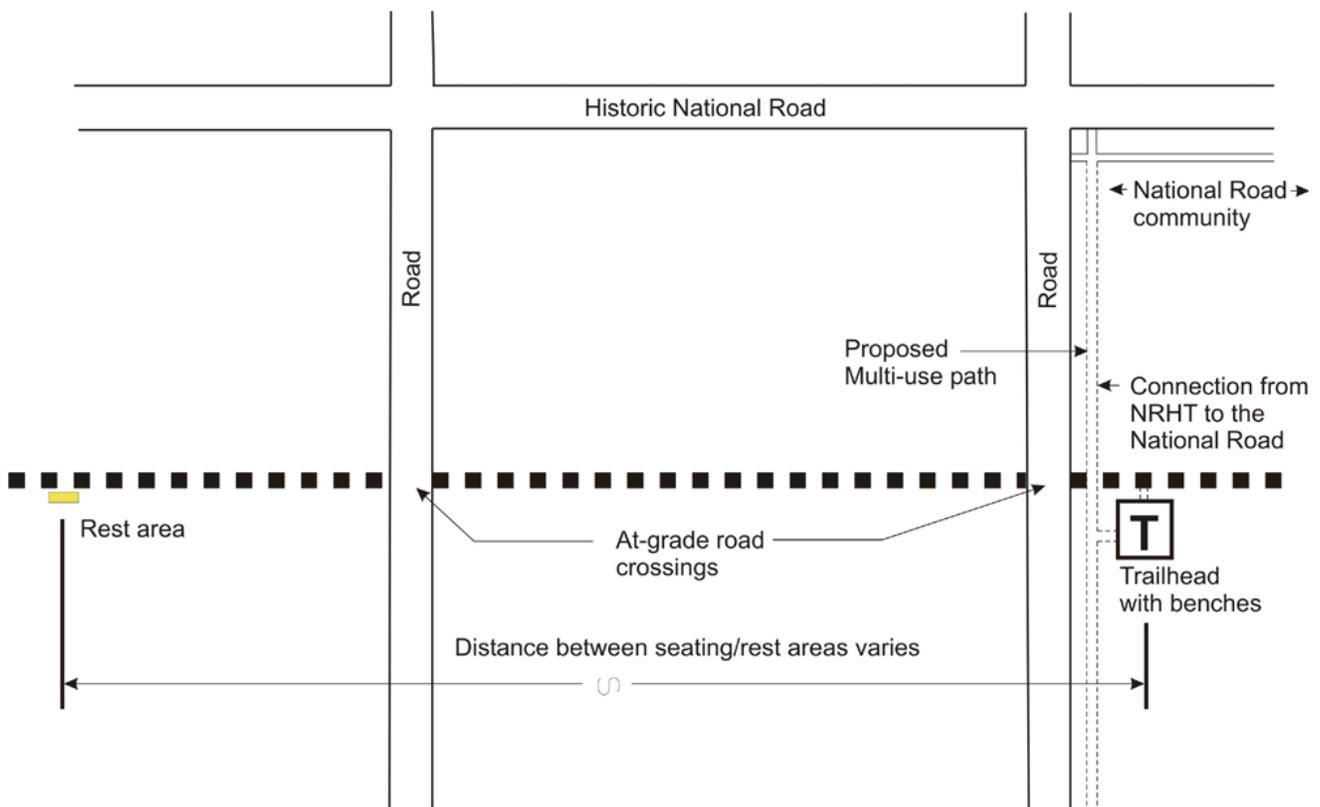
The NRHT user will need an occasional place to pause, rest, and enjoy the trail. These areas are important for the public's benefit as they help promote positive trail experiences. Critical to the success of the cross-state NRHT is the appropriate location of rest areas.

Recommendations

- Rest areas should include seating and shade.
- Trailheads are ideal locations for incorporating rest areas with seating and shade.
- Rest areas should be developed in rural areas where there are long distances between the location of trailheads and public access points.

3.4 Rest Areas

- Rest areas can be developed in conjunction with nearby historic sites or points of interest. Interpretive signage may be integrated into the rest area.
- A possible location for a rest area is along the elevated corridor segments at bridge crossings.
- Locate and design rest areas so that those who stop are safe and not in conflict with those using the adjacent trail.



LEGEND

- ■ ■ ■ NRHT
- T** Trailhead

3. GENERAL DESIGN

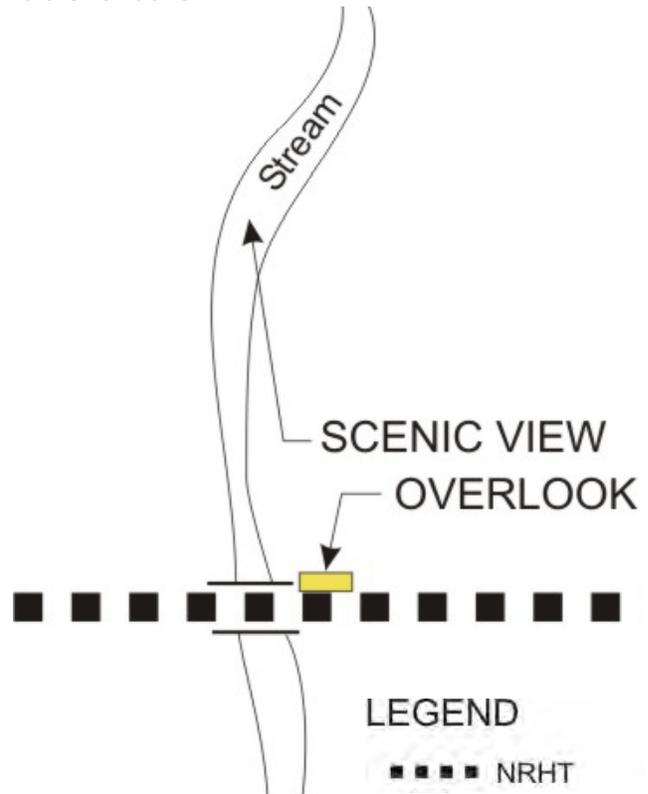
Description

An overlook is an area along the cross-state NRHT where the public may be afforded a scenic or panoramic view of the adjacent country-side or a unique view of an adjacent point of interest.

Recommendation

- Encourage the public to view the scenic natural resources that occur at river and stream corridors.
- Incorporate overlooks of scenic agricultural fields, farmhouses and barns.
- Provide seating and shade if possible at overlook areas.
- Design overlooks so that users who stop can safely enjoy the scenery while not interfering with those who may be using the adjacent trail

3.5 Overlooks



3. GENERAL DESIGN

Description

Much of the long-term success and acceptance of the cross-state NRHT will depend on the type and frequency of maintenance that will be performed along the trail.

A well-maintained trail will provide the public with a positive outlook on the trail

It will be important for communities and agencies developing portions of the cross-state NRHT to first determine the level of maintenance that is appropriate for the trail, and who will be responsible for performing the maintenance.

3.6 Maintenance

Recommendation

- Encourage the use of sustainable, high performance, efficient and environmentally responsible construction materials.
- Encourage environmental stewardship.
- Determine the level of appropriate trail maintenance and who will be responsible for performing.
- Make sure funding for maintenance is considered when applying for grants for construction activities.



Volunteers cleaning up the trail. Photo courtesy of Lackawanna River Corridor Association.



Volunteers help clear the corridor, preparing it for use. Photo courtesy of National Road Heritage Trail, Inc.



Existing pedestrian walk along south side of US 40 eastbound bridge over Wabash River. Source: Storrow Kinsella Associates Inc

VIGO CONCEPTUAL STUDY AREA

The following investigates the cross-state NRHT's proposed alignment and crossing of the Wabash River on the west side of Terre Haute. The Vigo County site was selected for the Conceptual Study because of challenges associated with crossing the river, and opportunities it may offer users of the cross-state NRHT to view this important corridor.

Site Investigation

Description

The selected Vigo County concept site is proposed to occur in conjunction with the U. S. 40/National Road crossing of the Wabash River. The crossing is located west of downtown Terre Haute. In this area, the Wabash River corridor is several hundred feet-wide with steep banks along its edges.

Need

To provide a trail connection over the Wabash River. The cross-state NRHT will require two-way bicycle and pedestrian traffic to safely cross the river. An appropriate crossing will eliminate the corridor as an imposing obstacle that would impede the trail's success.

Potential Options

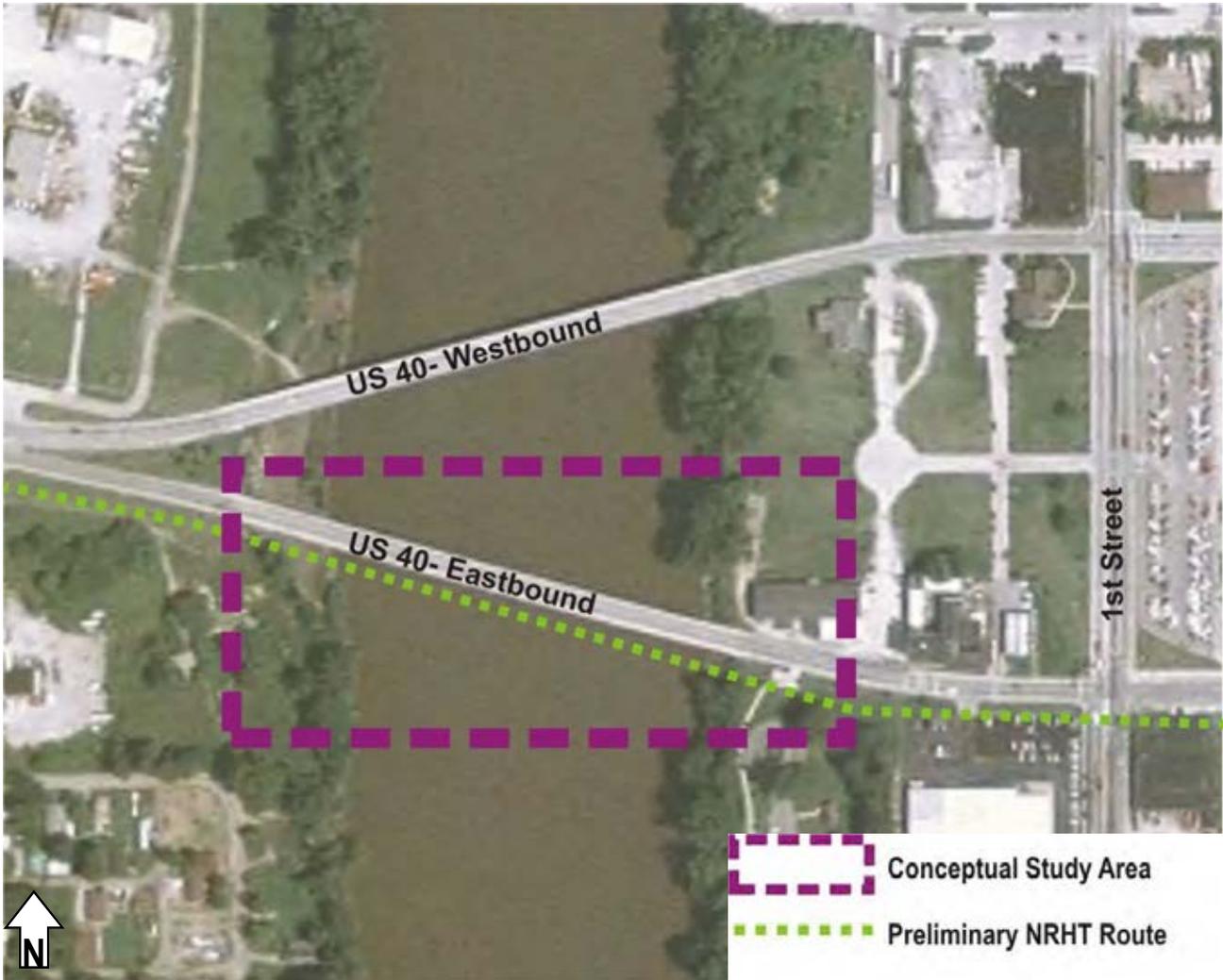
Because of the width of the river and its volume of flow, a bridge crossing will be required for the cross-state trail. With this scenario, there are two basic options available for crossing the Wabash River - both utilize a bridge. The options for the cross-state NRHT are:

- 1) Utilize an existing bridge, or
- 2) Construct a new bridge.

While a new bridge may be a possibility, further study and evaluation would need to take place outside the scope of this Development Guide to determine its feasibility. The first option listed for utilizing an existing bridge also must take into account whether an existing bridge is suitable for accommodating the cross-state NRHT, or if retrofitting needs to be made. This Conceptual Study will focus on issues associated with utilizing the existing U. S. 40/National Road crossing. In particular, the trail is proposed to use the southern of two existing U. S. 40/ National Road bridges.

West of the Vigo County Courthouse as the U.S. 40/National Road crosses the Wabash River, vehicular traffic is separated into eastbound and westbound lanes. Each bridge carries one-way traffic, with westbound vehicular traffic moving across the northern bridge and eastbound vehicular traffic moving across the southern bridge. It is the southern bridge that is proposed to also carry the cross-state NRHT bicycle and pedestrian traffic.

While the southern bridge carries two-lanes of east-bound vehicular traffic, it also has an existing six- foot wide concrete



sidewalk on the south side of the bridge. There is currently a curb separating the sidewalk from the adjacent traffic lane, and a concrete wall serves as the protective barrier on the south side of the bridge. The 6' width of the existing sidewalk does not currently allow it to be safely used as a trail that accommodates two-way bicycle and pedestrian traffic.

Opportunities

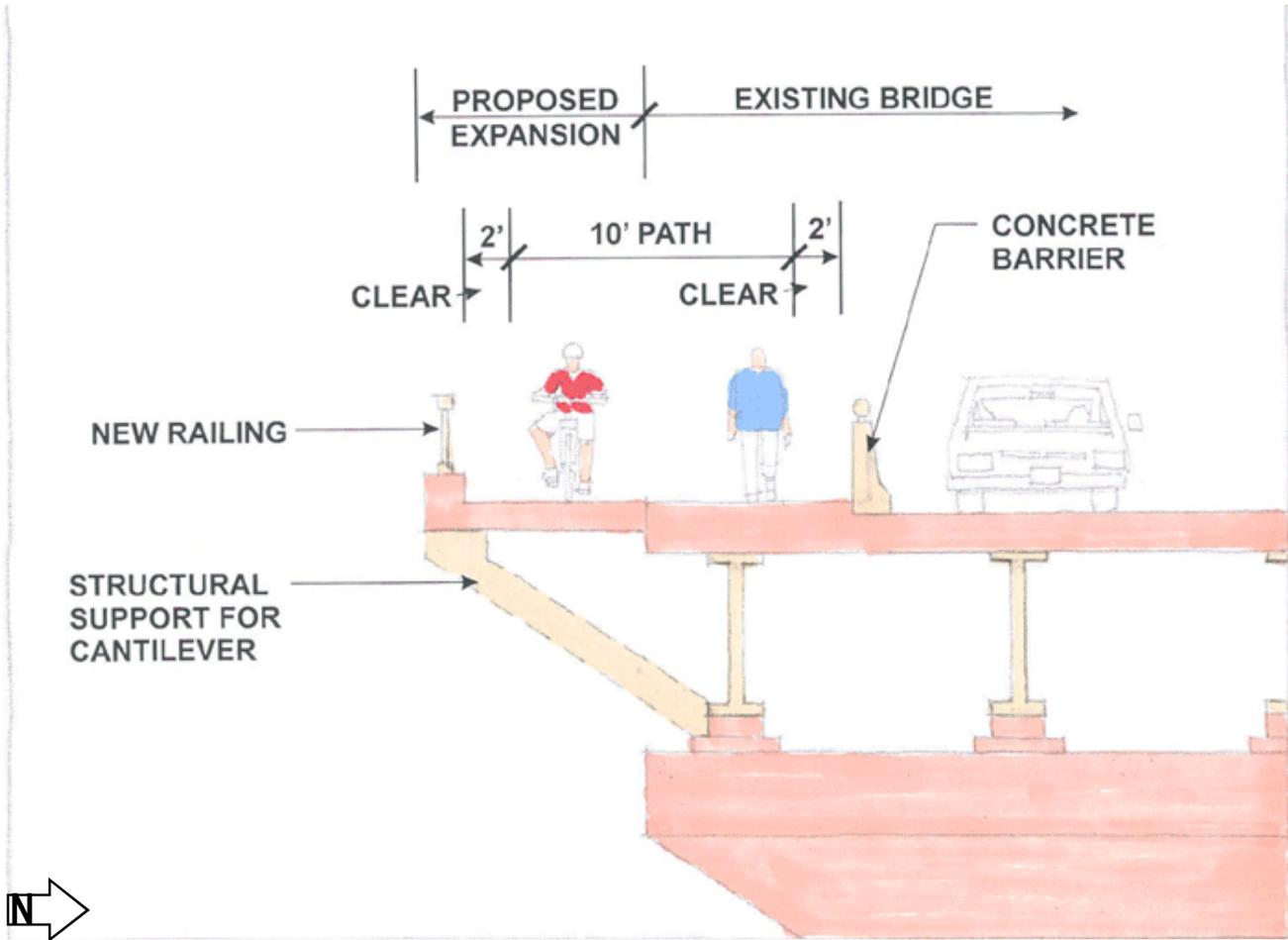
The Wabash River is an important symbol for the State of Indiana, and therefore offers opportunities for trail users to learn more about this natural resource. Incorporated into song and folklore, the wide expanse of Wabash River flows from north to south in the western part of the state. As the cross-state NRHT moves across Vigo County, it encounters the Wabash River on the west side of Terre Haute. The intersection of the two significant corridors can provide trail users with an opportunity to experience the Wabash River in a different way – other than from an automobile. Ways to accomplish that may include incorporating overlooks into the

bridge and possibly even providing pedestrian access to the river.

**Conceptual Study Area Recommendation—
Bridge Retrofit**

With modification, the existing eastbound U. S. 40/National Road bridge offers an opportunity to carry NRHT users across the Wabash River.

These recommendations address the previously mentioned option for using the east-bound existing bridge. Improvements are proposed to transform the existing 6' wide sidewalk that runs along the south side of the eastbound traffic bridge into a 10' wide trail, with additional 2' wide "shy areas" on each side of the trail. In order to accommodate a wider trail on the eastbound traffic bridge, a series of structural improvements are proposed. These proposed improvements include the addition of a cantilever that extends out from the south side of the bridge to accommodate a wider trail, new railing,



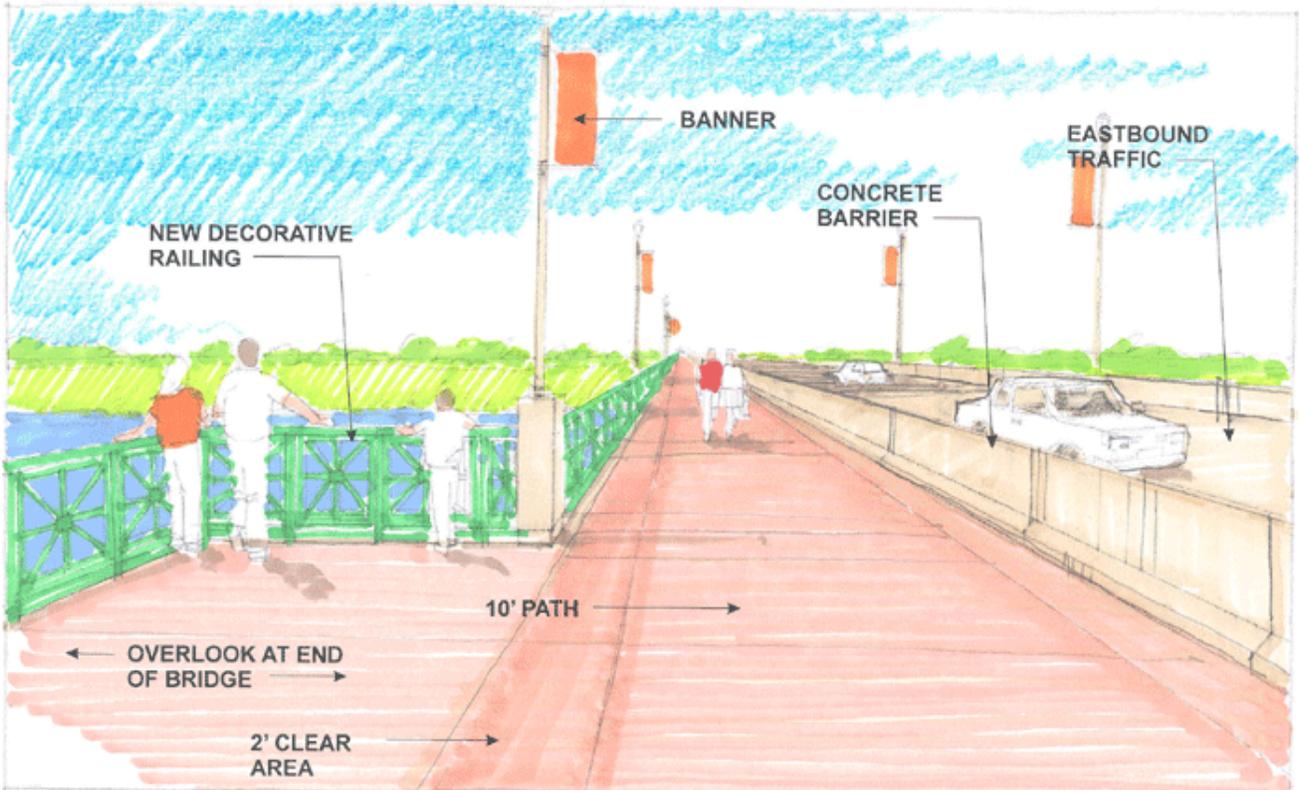
Section showing concept for proposed bridge improvements. Source: Storrow Kinsella Associates Inc



View of the underside of the eastbound U. S. 40/ National Road bridge.
Source: Storrow Kinsella Associates Inc



The U. S. 40/National Road bridge spans the Wabash River west of Terre Haute. Source: Storrow Kinsella Associates Inc



Perspective sketch showing proposed bridge improvements, looking west. Source: Storrow Kinsella Associates Inc



View of the Wabash River looking south from the eastbound U. S. 40/National Road bridge sidewalk. Source: Storrow Kinsella Associates Inc



Connection at the end of the U. S. 40/National Road bridge to Terre Haute, 's Fairbanks Park. Source: Storrow Kinsella Associates Inc

ornamental lighting with banners and a potential river overlook at either end of the bridge. A 4'-6" tall concrete barrier is also proposed to be located along the edge of the expanded trail to provide separation from adjacent vehicular traffic.

Proposed improvements for the Vigo County site are conceptually shown on the graphics in this section. All crossing improvements including signage, pavement markings, clear zones and sight lines, etc. are to meet or exceed INDOT standards.

RECOMMENDATIONS FOR THE REMAINING CROSS-STATE NRHT IN VIGO COUNTY

The following are general recommendations for the development of the cross-state trail in Vigo County:

- Promote the extension of the NRHT west into Illinois
- Engage communities that are adjacent to the proposed cross-state NRHT in Vigo County to adopt the master plan.
- Start a public information campaign in Vigo County to inform the public about the proposed cross-state NRHT.
- Work with local communities to incorporate the proposed trail alignment into local planning documents.
- Signage should be incorporated at key locations to tell trail users about the history of the railroad, the National Road and communities along the cross-state trail corridor.
- The ability to combine both a bicycle/pedestrian trail and equestrian trail in one corridor is limited in Vigo County. The area where a combination is possible would begin in East Glenn and run east to the Clay County line.
- Discussions should take place with property owners that have sites along the cross-state trail's proposed alignment where physical competing uses occur. The discussions should seek to determine property owner's willingness to allow the cross-state trail on their corridor. If agreements aren't successful, then alternate routes should be considered around the sites of competing use found in Vigo County.
- Incorporate the appropriate trail design for the cross-state NRHT in Vigo County. Specific applications associated with this site that are found in the Design Guidelines include the following:
 - Multi-use trail
 - Overlook
 - Maintenance

CONCEPTUAL STUDY AREA

The following is an examination of the NRHT's proposed crossing of C. R. 675 W in Clay County. In this area of western Clay County, the former railroad corridor is elevated. At the intersection of the trail's proposed alignment with the two-lane C. R. 675 W, a railroad bridge that once spanned the road has been removed. This Clay County site was selected for the Conceptual Study because it is representative of a condition found at several locations along the proposed alignment of the 150-mile cross-state trail. The conceptual design shown in this section may provide communities with an approach for addressing similar cross-state NRHT situations in their area.

Site Investigation

Description

The selected site is in western Clay County, at the point where the NRHT proposed alignment crosses C. R. 675 W. The elevation of the former railroad corridor on both sides of C. R. 675 is approximately 20' above the road. The railroad bridge that once spanned over the road along with its abutments have been removed. Both sides of the corridor contain vegetation, including trees that are visually estimated to be 25 feet or taller along with a mix of small to medium size trees and volunteer shrubs. The existing vegetation helps to visually screen the corridor from adjacent land-use.

C. R. 675 W is a two-lane rural road that runs north/south across the former railroad corridor. It is assumed for this report that C. R. 675 W has a low-volume of traffic. Because the bridge and its abutments have been removed, the exposed ends of the elevated corridor have been graded from the top of the slope, down to an elevation that meets the shoulders of the crossing roadway.

Need

The primary need is to continue the NRHT across an area where a railroad bridge used to exist. The cross-state NRHT is proposed to contain both a bike/pedestrian trail and an adjacent but separated equestrian trail for this part of Clay County. The trail design for this site will require that users are able to safely travel from the elevated corridor on one side of C. R. 675 W to the elevated corridor on the other side of the road.

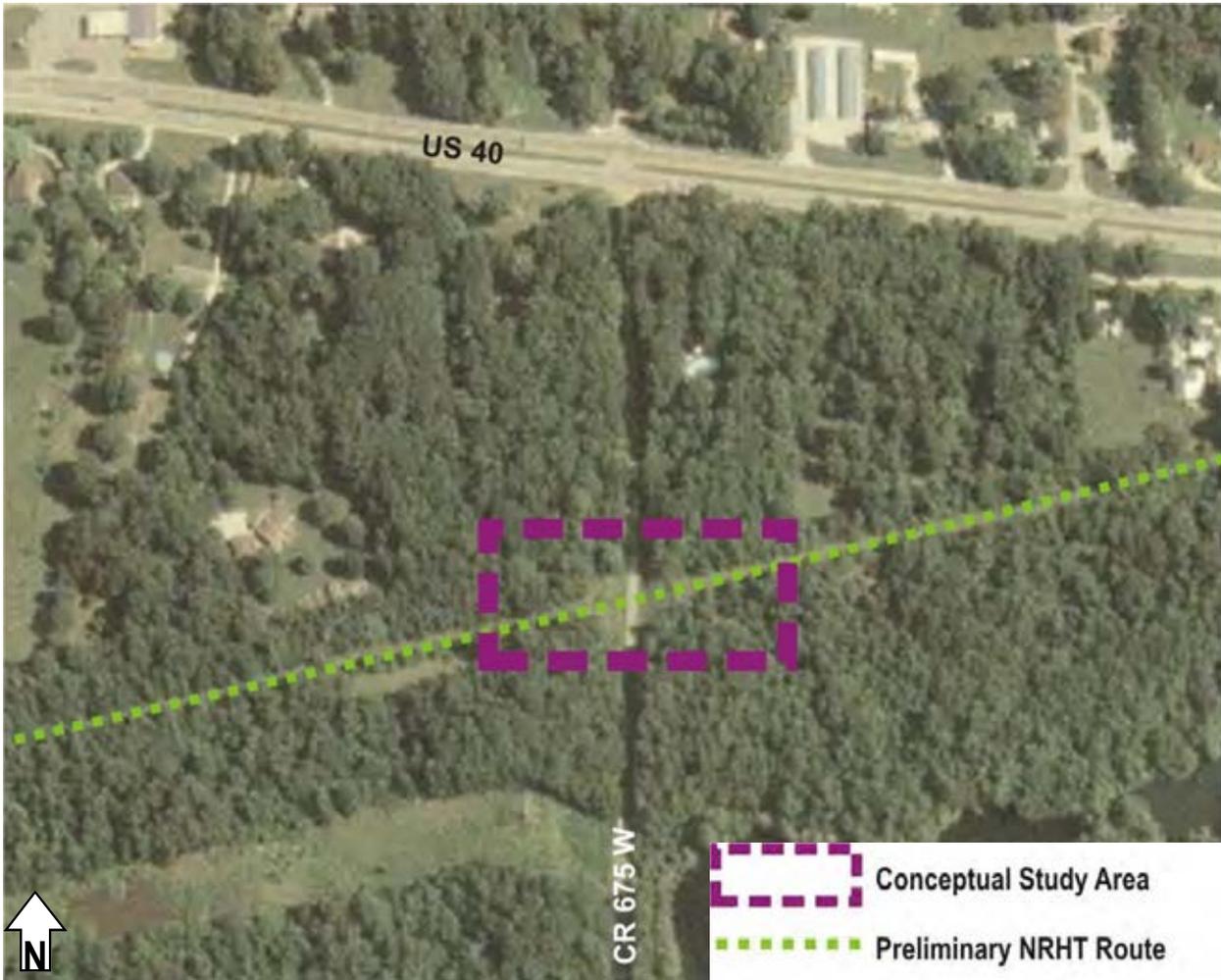
Potential Options

There are two options for the NRHT crossing of C. R. 675 W.

The options include:

- 1) Replacing the removed bridge, or
- 2) Grading the elevated corridor on one side of C. R. 675 W so trail users travel down a slope to make an at-grade road crossing and then up a slope to the top of the elevated corridor on the other side of the road.

A replacement bridge may be the option that is eventually used



for crossing C. R. 675 W. A new bridge may be constructed or it may even be possible that a relocated bridge could be used for this application, but the feasibility of adding a bridge and abutments needs further study and evaluation beyond the scope of this Development Guide. This following pages of this document will focus on the possible solution of grading the elevated corridor to allow trail users to make an at-grade road crossing of C. R. 675 W.

The selected conceptual site is representative of several locations in western Clay County where the elevated corridor and its sloped ends meet a two-lane country road.

Opportunities

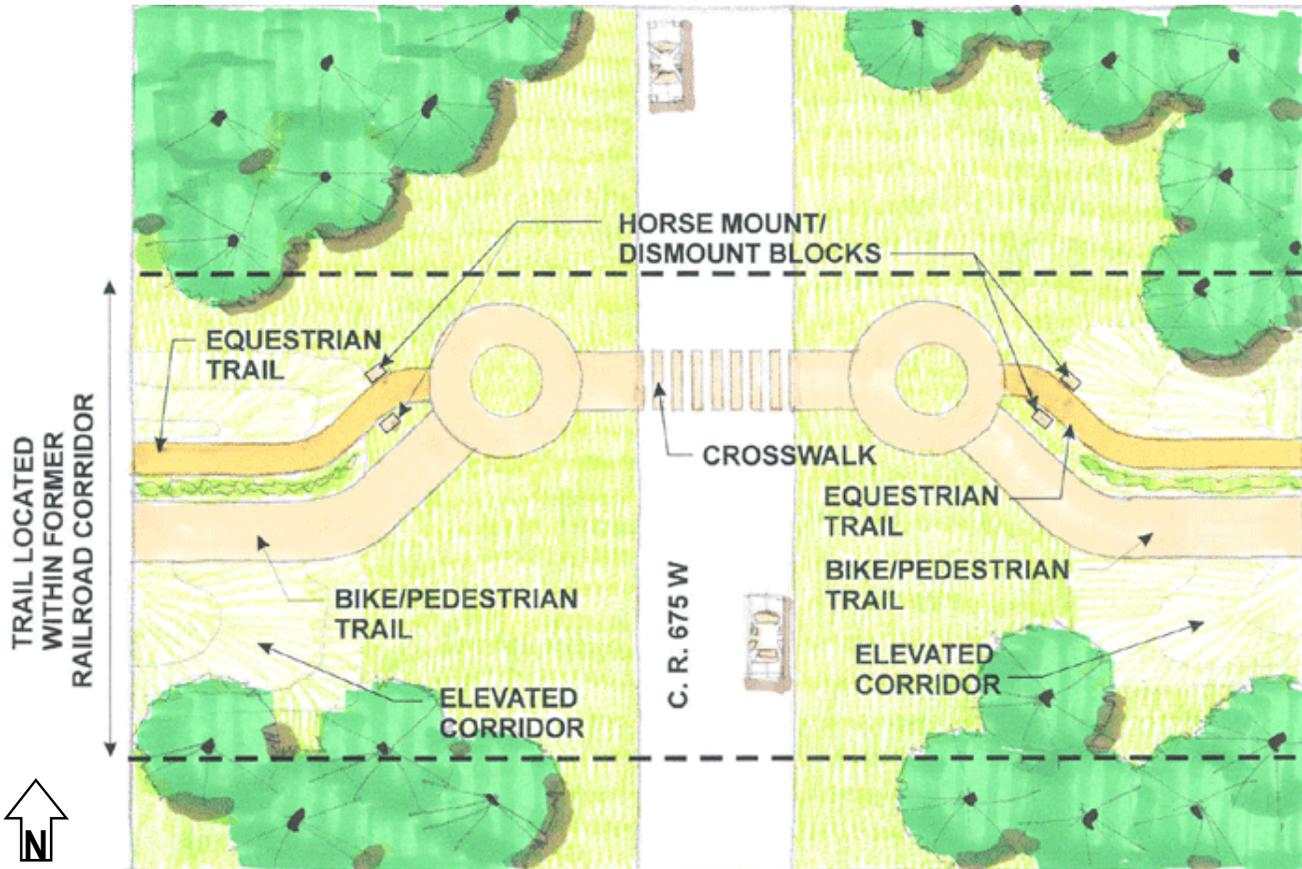
The creation of an at-grade road crossing may be a cost-effective solution when compared with the cost for a replacement bridge. A bridge feasibility study would provide more detailed/comparative costs. An at-grade road crossing may also provide an opportunity for the public to have an accessible trail entry/exit point.

Conceptual Study Area Recommendation—At-Grade Road Crossing

The proposed conceptual design for the road crossing involves grading from the top of the elevated corridor to the same elevation as the crossing road. This is intended to provide a safe trail slope for bike/pedestrians and also equestrians. Proposed improvements for the Clay County site are conceptually shown on the graphics in this section. All crossing improvements including signage, pavement markings and clear zones are to meet or exceed INDOT standards.

Specific improvements proposed for the Clay County concept site include:

- A bicycle/pedestrian trail and an adjacent equestrian trail are proposed to be located on the former railroad corridor. Both trails are proposed to be parallel but physically separated on both sides of C. R. 675 W. The proposed NRHT alignment for this segment is shown on the Clay County trail maps.
- Grading the elevated corridor on both sides of C. R. 675 W



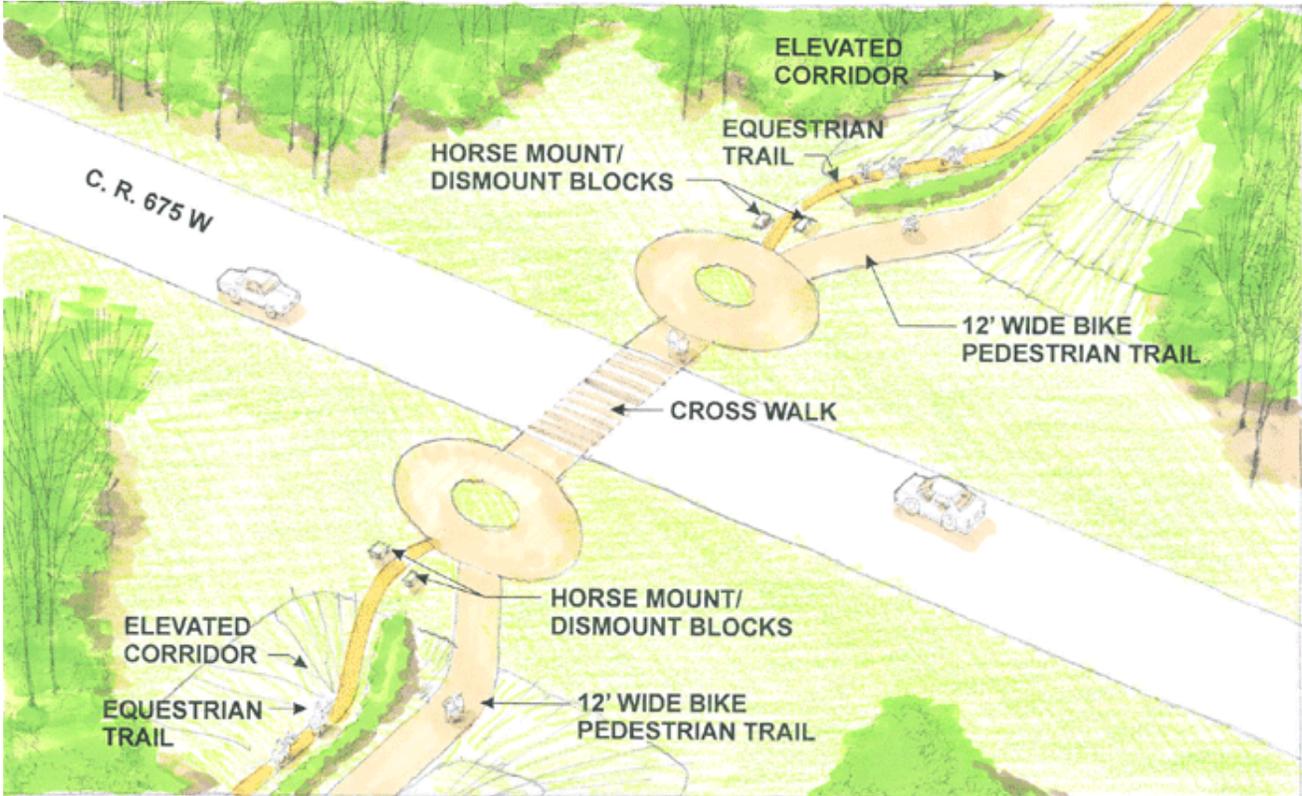
Plan view of the proposed concept. Source: Storrow Kinsella Associates Inc



The elevated corridor has vegetation along its edges. Source: Storrow Kinsella Associates Inc



View across C. R. 675 W, looking west. Source: Storrow Kinsella Associates Inc



Perspective sketch of the proposed concept, looking east. Source: Storrow Kinsella Associates Inc



View of the elevated corridor, which leads down to C. R. 675 W. Source: Storrow Kinsella Associates Inc

is proposed to allow the bicycle/pedestrian trail and equestrian trail to make a safe at-grade road crossing. Both trails are proposed to have a maximum slope of 5% from the top of the corridor to a landing area at the base of the corridor. A transition area is proposed to be constructed between the base of the elevated corridor and C. R. 675 W, and graded to be relatively flat. Trail improvements also must take drainage into account. The trail slope and transition area is proposed to encourage bicycle riders to slow to a safe speed and stop before crossing C. R. 675 W.

- Crosswalk stripes on the road pavement are proposed.
- Road signs along C. R. 675 W are proposed to announce to drivers of the upcoming crosswalk – at a significant distance before the crossing.
- Standard stop signs for trail users are proposed for both sides of the road.
- Improvements proposed for equestrian riders at the proposed crosswalk include mount/dismount blocks on both sides of C. R. 675.
- Trail features are proposed for the purpose of slowing bicycles to reduce their ability to cross C. R. 675 W at unsafe speeds
- All crossing improvements including signage, pavement markings, clear zones and sight lines, etc. are to meet or exceed INDOT standards

following:

- Multi-use trail and equestrian trail
- Two-lane road crossing
- Ingress/Egress at former bridge crossing
- Maintenance

RECOMMENDATIONS FOR THE REMAINING CROSS-STATE NRHT IN CLAY COUNTY

The following are general recommendations for the development of the cross-state NRHT in Clay County.

- From the western county boundary, a multi-use trail containing both a bicycle/pedestrian path and equestrian trail is proposed to extend all the way to Brazil. This portion of the proposed trail will often contain elevated segments.
- Start a public information campaign in Vigo County to inform the public about the proposed cross-state NRHT.
- Work with local communities to incorporate the proposed trail alignment into local planning documents.
- Signage should be incorporated at key locations to tell trail users about the history of the railroad, the National Road and communities along the corridor.
- Discussions should take place with property owners that have sites along the corridor where physical competing uses occur. The discussions should seek to determine property owner's willingness to allow the trail on their corridor. If agreements aren't successful, then alternate routes should be considered around the physical competing uses found in Clay County.
- Incorporate the appropriate trail design for the cross-state NRHT in Clay County. Specific conceptual site applications found in the Design Guidelines include the

CONCEPTUAL STUDY AREA

The following examines the proposed alignment of the NRHT and its crossing of C. R. 150 W in Putnam County. The crossing is but one of several at-grade road crossings that will occur on rural roads in Putnam County. From the Clay/Putnam County boundary to this location, the NRHT is proposed to contain both a bike/pedestrian trail and adjacent equestrian trail. However, the equestrian trail is proposed to end at C. R. 150 W. A trailhead with horse trailer parking is proposed to be located at the end of the equestrian trail.

This Putnam County trail description offers an overview of the physical conditions, need and opportunities associated with the NRHT/C. R. 150 W crossing. Also included is a conceptual design approach for the trail implementation. The concepts presented reference standards and fundamentals discussed in the Design Guidelines.

Site Investigation

Description

The Putnam County trail concept site occurs on the west side of the C. R. 150 W crossing, south of Limedale. At this point, the NRHT corridor runs from southwest to northeast, toward Greencastle and the People Pathways network.

C. R. 150 W is a two-lane rural road with an assumed relatively low-volume amount of traffic. The road does serve the adjacent Buzzi Unicem facility, which means there is occasional truck traffic.

Need

The primary need is for the NRHT to make a crossing of a two-lane road and have an adjacent trailhead. The cross-state NRHT will primarily be a bike/pedestrian trail for its entire run across Putnam County. There is a parallel equestrian trail that is proposed to run from the Clay/Putnam County line to C. R. 150 W. The need is for trail users to safely cross C. R. 150 W and have a trailhead with horse trailer parking at the end of the equestrian portion of the trail.

Potential Options

The trail crossing of C. R. 150 W is proposed to be an at-grade road crossing. The location of the trailhead and its parking may have two options, including:

- 1) Locate the trailhead on the east side of the road, or
- 2) Locate the trailhead on the west side of C. R. 150 W

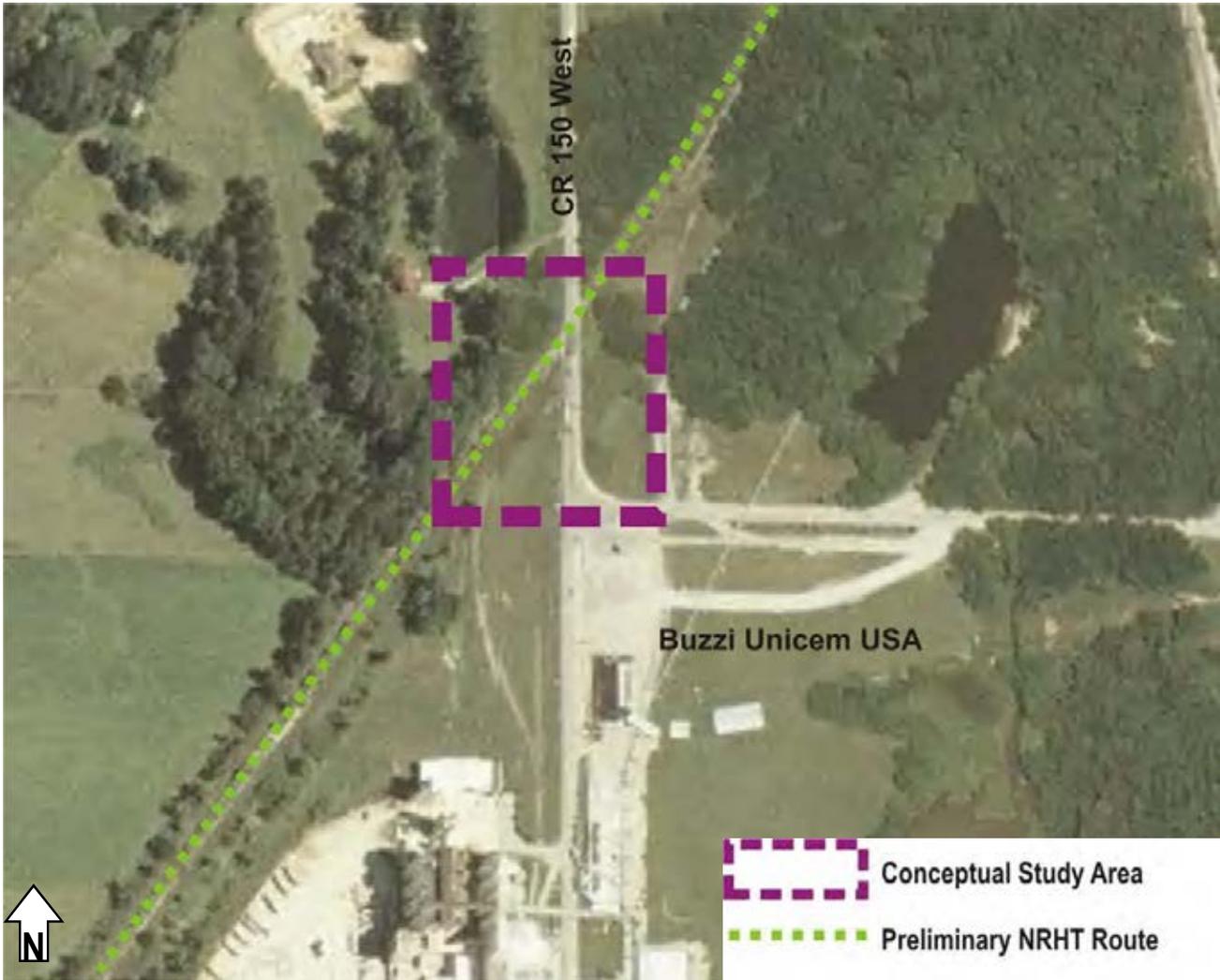
It is assumed for this study that the trailhead may be located west of C. R. 150 W, so that equestrian trail users would not have to make an at-grade road crossing. The actual location of a trailhead will require further study and evaluation beyond the scope of this Development Guide because of property ownership issues.



View looking northeast from the former railroad corridor across C. R. 150 W. Source: Storrow Kinsella Associates Inc



View of the proposed corridor alignment looking southwest with the potential trailhead site on the left. Source: Storrow Kinsella Associates Inc



Opportunities

The NRHT segment that runs from the Clay County line to C. R. 150 W has been identified as a corridor that will contain a combined bike/pedestrian trail and equestrian trail. The C. R. 150 W crossing represents the end of the equestrian trail for this part of Clay County.

Conceptual Study Area Recommendation—At-Grade Road Crossing and Trailhead on West Side of C. R. 150 W

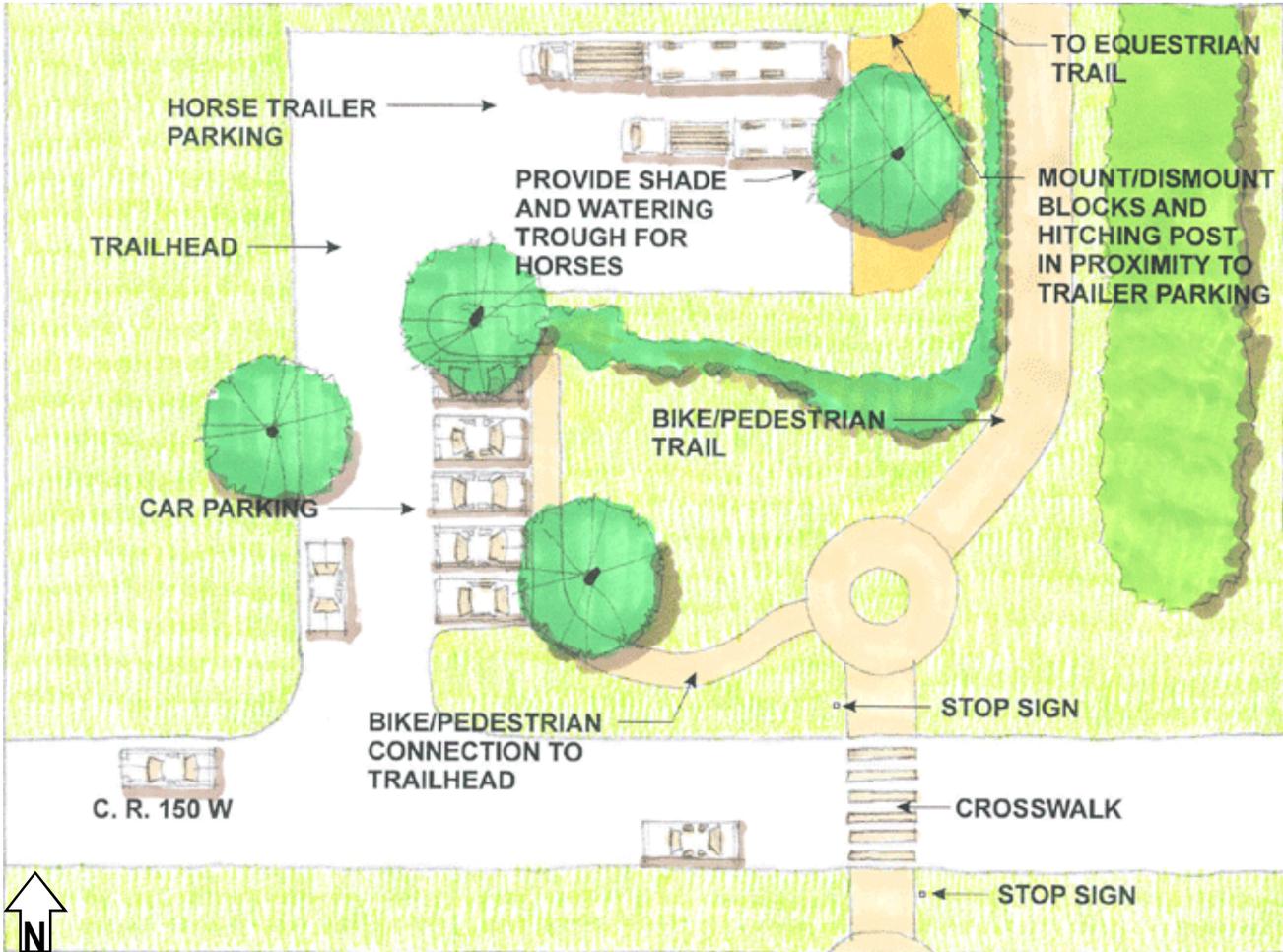
To help facilitate the use of the trail by pedestrians, bicyclists and horseback riders, it is recommended that a trailhead be incorporated at this site. The trailhead should be large enough to accommodate both car parking and parking of horse trailers.

Signage would also be added at the trailhead to inform the public about trail rules and regulations as well as provide wayfinding for pedestrians, bicyclists, and equestrian riders.

Proposed improvements for the Putnam County site are conceptually shown on the graphics in this section. All crossing improvements including signage, pavement markings, clear zones are to meet or exceed INDOT standards.

Specific improvements include:

- Incorporating a proposed bicycle/pedestrian trail adjacent but separated from a proposed equestrian trail, west of C. R. 150 W as shown on the Putnam County trail maps.
- A parcel of property, currently south of the proposed NRHT corridor on the west side of C. R. 150 W, may offer an opportunity for the location of a trailhead. The trailhead may be designed to accommodate both car parking and horse trailer parking.
- Improvements are proposed for equestrian riders at the proposed trailhead. These include areas for shade, water, hitching posts and mount/dismount blocks.



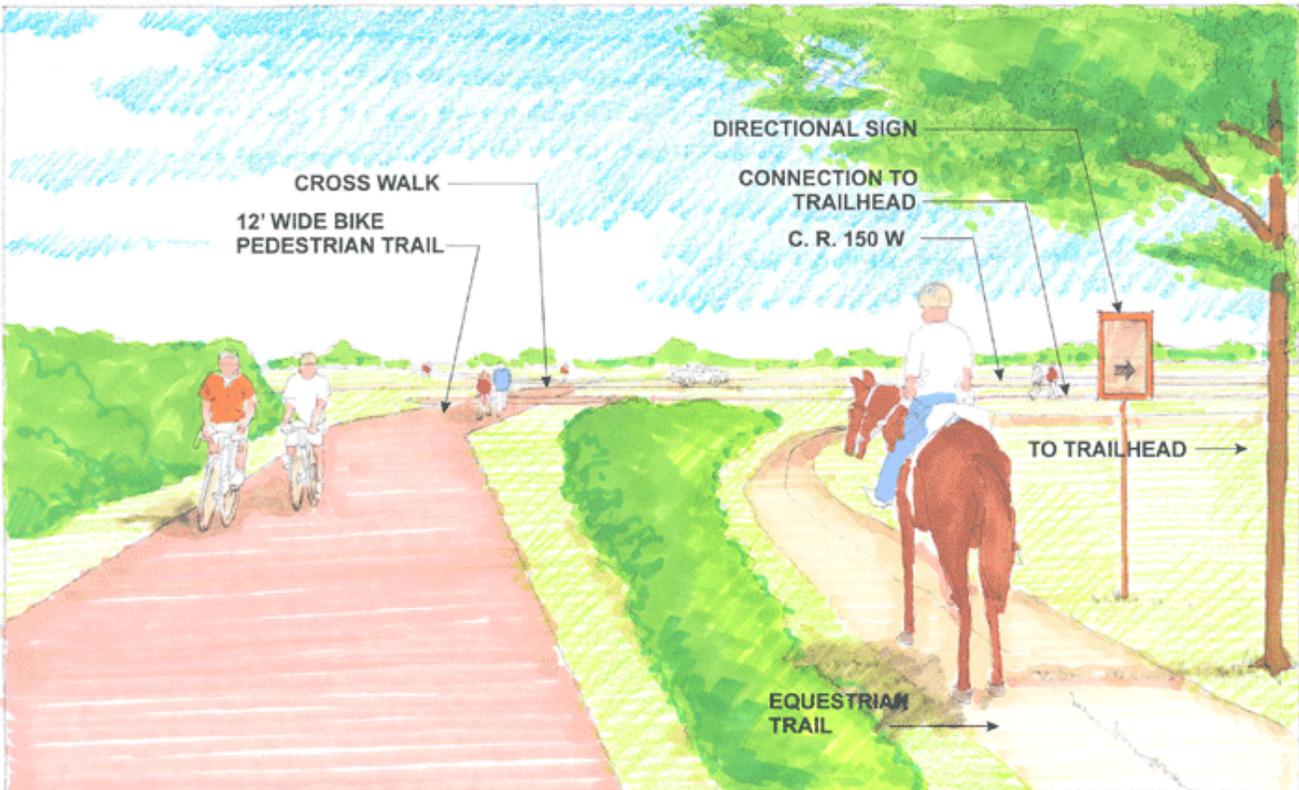
Plan view of the proposed concept. Trailer parking illustrated highlights the need but is not intended to represent a particular design. Source: Storrow Kinsella Associates Inc



View showing unearthened railroad ties along the corridor near the C. R. 150 W crossing. Source: Storrow Kinsella Associates Inc



View looking south along C. R. 150 W, at the approximate location of the proposed trail crossing. Source: Storrow Kinsella Associates Inc



Perspective sketch of the proposed concept, looking northeast. Source: Storrow Kinsella Associates Inc



Potential trailhead site alongside C. R. 150 W. Source: Storrow Kinsella Associates Inc



View showing vegetation along the edge of the proposed NRHT, adjacent to the potential trailhead site. Source: Storrow Kinsella Associates Inc

- The eastbound equestrian trail from Reelsville is proposed to end at the trailhead. No equestrian trail is proposed between the trailhead and the People Pathways trail system in Greencastle.
- Crosswalk stripes on the road pavement are proposed.
- Road signs along C. R. 150 W are proposed to announce to drivers of the upcoming crosswalk – 200 feet before the crossing.
- Standard stop signs are proposed for trail users on both sides of the road.
- Trail features are proposed to encourage bicycles to slow in speed and stop before crossing C. R. 150 W.
- All crossing improvements including signage, pavement markings, clear zones and sight lines, etc. are to meet or exceed INDOT standards.

RECOMMENDATIONS FOR THE REMAINING CROSS-STATE NRHT IN PUTNAM COUNTY

The following are general recommendations for the development of the cross-state trail in Putnam County.

- Engage communities that are adjacent to the proposed NRHT in Putnam County to adopt the master plan.
- Start a public information campaign in Putnam County to inform the public about the proposed NRHT.
- Work with local communities to incorporate the proposed trail alignment into local planning documents.
- At the western end of the county, a multi-use trail containing both a bicycle/pedestrian path and equestrian trail will extend from Clay County into Putnam County. This portion of the proposed trail will contain a bicycle/pedestrian path that will be adjacent to, but physically separated from the equestrian trail. The equestrian portion of the trail is expected to end at approximately C. R. 150 W south of Limedale but the bike/pedestrian path will continue east. At the point where the equestrian trail ends, a trailhead should be considered that could accommodate horse trailer parking.
- Signage should be incorporated at key locations to tell trail users about the history of the railroad, the National Road and communities along the corridor.
- The combined bicycle/pedestrian and equestrian trail would resume at the People Pathways trailhead at C. R. 200 E and continue east to the Hendricks County line.
- Discussions should take place with property owners that have sites along the proposed trail where competing land use occur. The discussions should seek to determine property owner's willingness to allow the proposed trail on their corridor. If agreements aren't successful, then alternate routes should be considered around the competing use sites found in Putnam County.
- Incorporate the appropriate trail design for the cross-state NRHT in Putnam County. Specific concept site

applications found in the Design Guidelines include the following:

- Multi-use trail and equestrian trail
- Two-lane road crossing
- Trailhead for multi-use trail combined with equestrian trail
- Maintenance



CONCEPTUAL STUDY AREA

The following examines the proposed NRHT alignment and its crossing of S. R. 75 in Hendricks County. The NRHT on both sides of S. R. 75 is proposed to contain both a bicycle/ pedestrian trail and an adjacent and parallel equestrian trail. The site was selected because of the challenges associated with crossing a high profile state road with a posted 55 m.p.h. speed limit.

Site Investigation

Description

The selected concept site occurs in the western part of Hendricks County. It is located at the eastern edge of Coatesville, where the former railroad corridor makes a crossing of the north/south S. R. 75 corridor. At this location, S. R. 75 is a two-lane highway with a posted speed limit of 55 m.p.h. It is one of 12 state highways the NRHT alignment is proposed to encounter on its cross state journey. At the point where the two systems make an intersection, both the highway and the former railroad corridor are at the same approximate grade, which is slightly elevated above the adjacent land.

Need

The primary need is for the NRHT to cross S. R. 75, which has two-lanes and a posted speed limit of 55 m.p.h. The trail will require bike/pedestrian users and equestrian users to safely cross the S. R. 75 corridor.

Potential Options

There are several options in which the cross-state NRHT can cross S. R. 75. These involve having the trail:

- 1) Make an at-grade road crossing, or
- 2) Altering the elevation of the proposed trail alignment so it makes a below-grade pass of the highway, or
- 3) Installing a new bridge over the roadway.

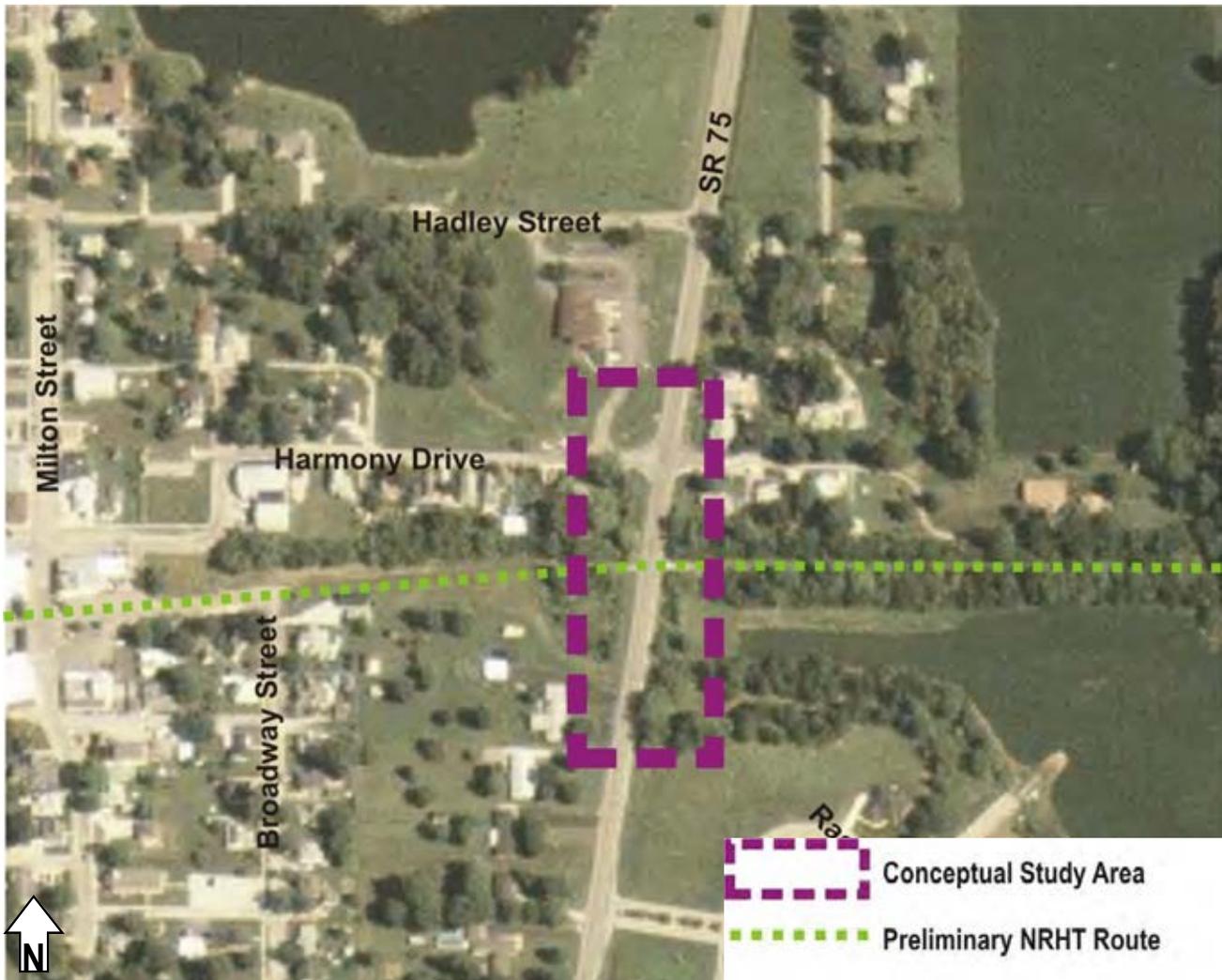
For this Hendricks County study, the option for making an at-grade road crossing will be the focus of the examination.

Opportunities

The creation of an at-grade crossing may be a cost effective solution when compared with the cost for either a tunnel under the road or a bridge over the road. Further study would need to be conducted to determine the comparative costs between the options.

Conceptual Study Area Recommendation—At-Grade Crossing of S. R. 75

The existing grade at the intersection would accommodate the creation of an at-grade NRHT crossing of S. R. 75.



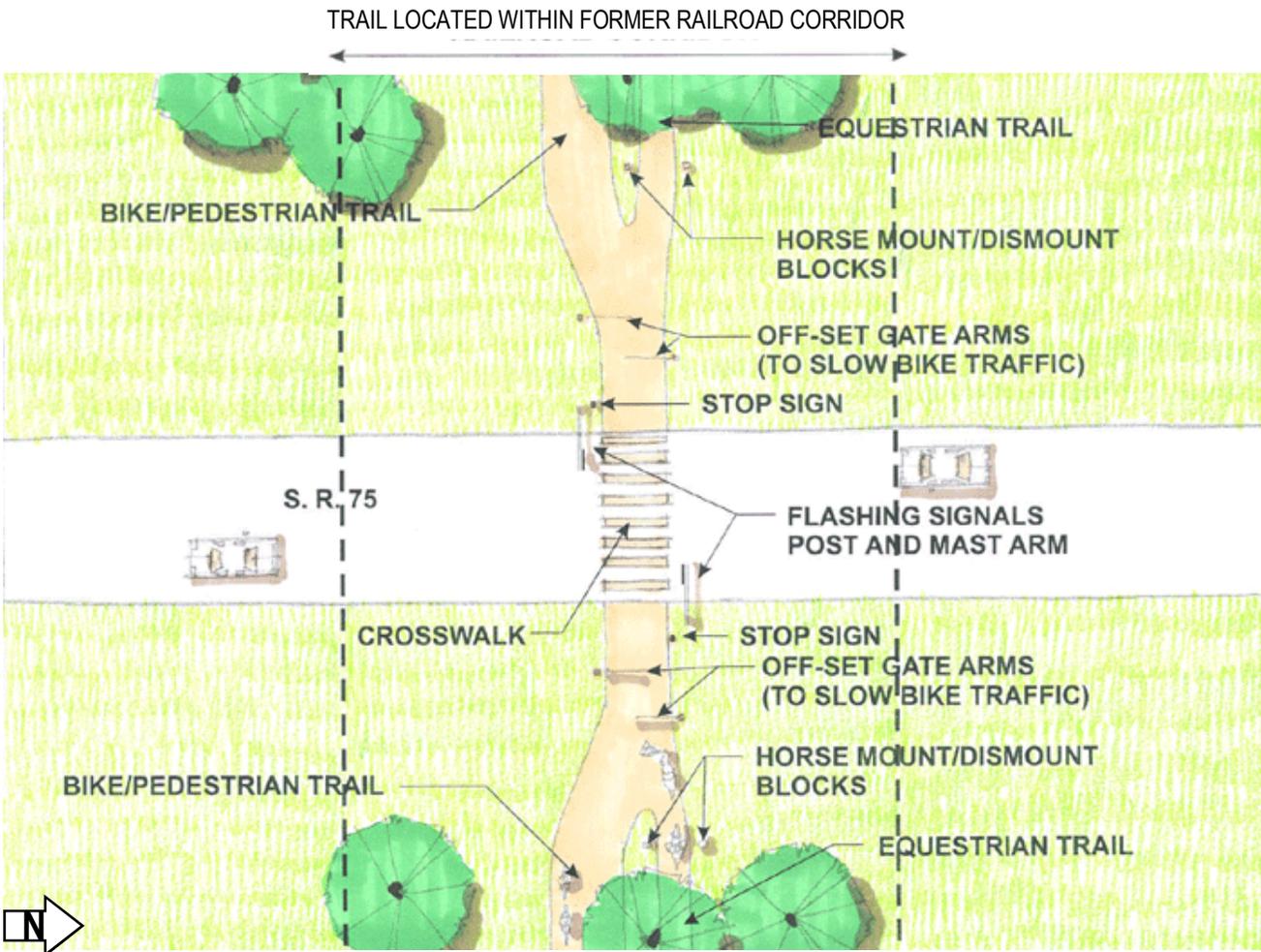
Proposed improvements at the Hendricks County concept site include:

- A bicycle/pedestrian trail is proposed to be adjacent but physically separated from a proposed equestrian trail. The side-by-side trails are proposed to be located on both sides of S. R. 75, as shown on the Hendricks County trail maps.
- Since the NRHT is proposed to make a crossing of a state route at this location, it is proposed that a sign identifying the NRHT be incorporated so that it may be seen by those driving on S. R. 75.
- Crosswalk stripes are proposed for the road pavement.
- Road signs along S. R. 75 are proposed to announce to drivers of the upcoming crosswalk.
- Standard stop signs for trail users are proposed on both sides of S. R. 75.
- Flashing signals are proposed at the crossing.
- Improvements are proposed for equestrian riders at the

proposed crosswalk including mount/dismount blocks on both sides of S. R. 75.

- Trail features are proposed to safely slow bicycles so they can stop before crossing S. R. 75 at an unsafe speed. The proposed features may include offset gate arms to safely slow trail traffic by directing trail users around the gates.
- Discussions should take place with INDOT to see if the existing 55 m.p.h. speed limit can be reduced as vehicular traffic passes through Coatesville.
- Rumble strips are proposed on S. R. 75.

Proposed improvements for the Hendricks County site are conceptually shown on the graphics in this section. The proposed NRHT crossing of S. R. 75 will require INDOT review and approval. All crossing improvements including signage, pavement markings, clear zones and sight lines, etc. are to meet or exceed INDOT standards.



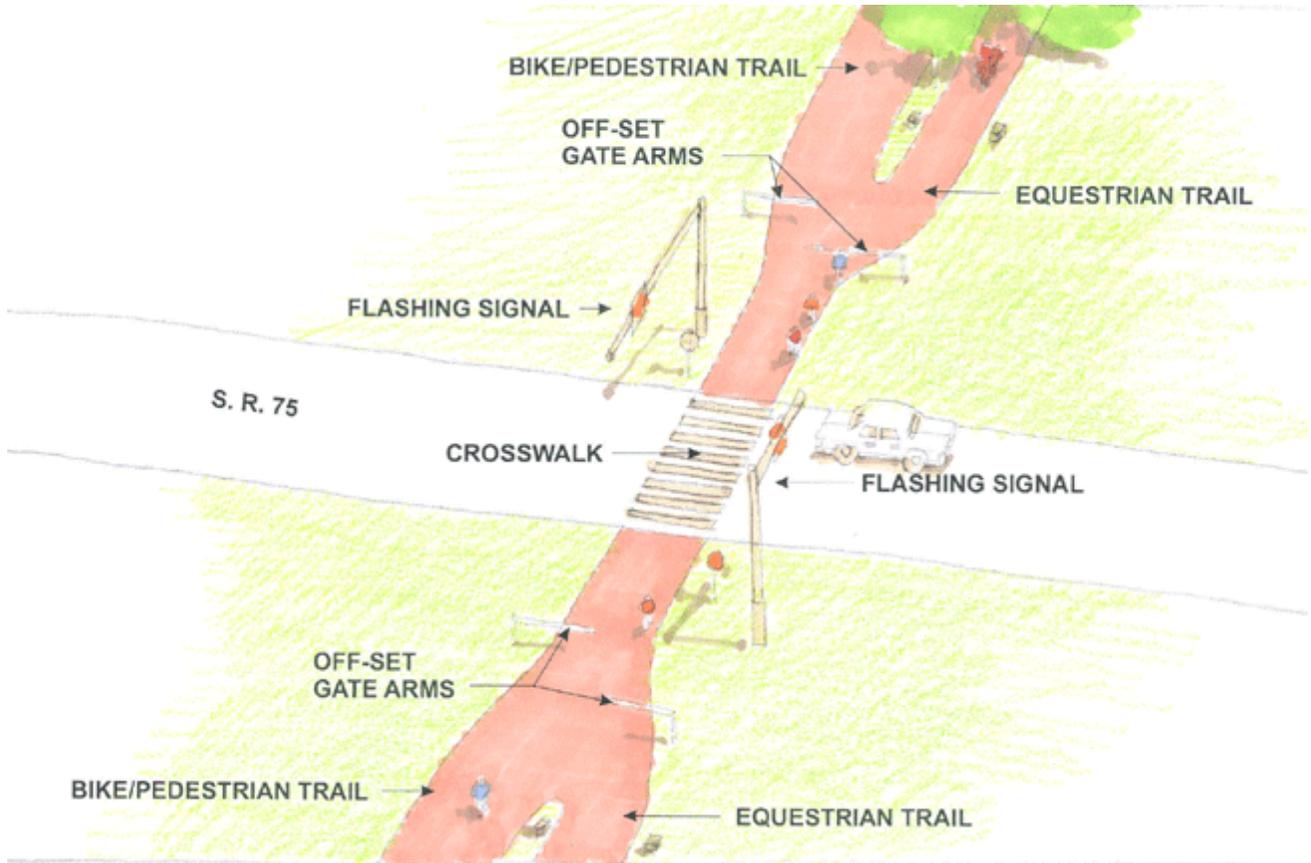
Plan view showing proposed improvements. Source: Storrow Kinsella Associates Inc



Existing site photos, illustrating conditions. Source: Storrow Kinsella Associates Inc



Existing site photos, illustrating conditions. Source: Storrow Kinsella Associates Inc



Perspective sketch showing proposed improvements, looking east. Source: Storrow Kinsella Associates Inc



Existing site photos, illustrating conditions. Source: Storrow Kinsella Associates Inc



Existing site photos, illustrating conditions. Source: Storrow Kinsella Associates Inc



RECOMMENDATIONS FOR THE REMAINING CROSS-STATE NRHT IN HENDRICKS COUNTY

The following are general recommendations for the development of the proposed cross-state NRHT in Hendricks County.

- Engage communities that are adjacent to the proposed NRHT in Hendricks County to adopt the master plan.
- Start a public information campaign in Hendricks County to inform the public about the proposed NRHT.
- Work with local communities to incorporate the proposed trail alignment into local planning documents.
- Signage should be incorporated at key locations to tell trail users about the history of the railroad, the Historic National Road and communities along the corridor.
- Discussions should take place with property owners that have sites along the proposed trail where competing use occurs. The discussions should seek to determine property owner's willingness to allow the proposed trail on their corridor. If agreements aren't successful, then alternate routes should be considered around the competing use sites found in Hendricks County.
- Incorporate the appropriate trail design for the cross-state NRHT in Vigo County. Specific concept site applications include the following:
 - Multi-use trail and equestrian trail
 - Two-lane road crossing
 - Maintenance

CONCEPTUAL STUDY AREA

This following is an examination of the proposed NRHT alignment, in western Marion County, for an area north of the Indianapolis International Airport and south of the U. S. 40/ National Road. In this location, an active rail line runs parallel to and south of U. S. 40. The proposed NRHT alignment brings it in proximity to the active rail line.

The following text presents background, need, opportunities and a conceptual design approach for the trail alignment.

Site Investigation

Description

For a portion of the proposed alignment in western Marion County, the cross-state trail will run parallel to the active east/ west running Conrail Railroad. The concept site is proposed to be located between the active railroad and the adjacent Airport Perimeter Road, in an area to the east of Banner Road.

The area topography is relatively flat. It is assumed that there is a moderate amount of vehicular traffic on Airport Perimeter Road. A drainage swale runs along side the active rail line.

Need

The primary need is to provide trail connectivity along the corridor where there is an active railroad line. The cross-state NRHT alignment is proposed to be on airport property in this stretch of Marion County. The NRHT is proposed to contain a bicycle/pedestrian trail, which will not make a crossing of the active rail line in this area. The trail design for this site require that users are able to safely travel near the active rail line.

Potential Options

The options for the cross-state trail alignment in this portion of Marion County are limited. The fact that there is usable space between the active rail line and Airport Access Road, makes the space most desirable for the location of the NRHT.

Opportunities

The placement of the NRHT alignment next to Airport Access Road will help to minimize conflicts between trail users and vehicles. There will however, be at-grade road crossings at several locations when the proposed trail alignment runs parallel to Airport Access Road. At these locations, recommendations presented in the Design Guidelines should be followed.

Conceptual Study Area Recommendation—Trail Adjacent To An Active Rail Line

It will be important that representatives from the Indianapolis International Airport and the railroad be involved in discussions on the final design and implementation of the cross-state



NRHT. A November 2000 document produced by the Rails-to-Trails Conservancy called, “*Rails with Trails—Design, Management and Operating Characteristics of 61 Trails Along Active Rail Lines*” should also be reviewed as a reference regarding the location of trails next to active rail lines. Final trail design and location must meet the approval of all appropriate authorities prior to implementation.

Proposed improvements for the concept site include:

- Locating a bicycle/pedestrian trail between the active rail line and Airport Perimeter Road – as shown on the Marion County trail maps.
- Discussions should take place with the airport and railroad representatives to discuss issues related to implementing the trail— including location, security and maintenance responsibilities.
- A tree lawn is proposed to be located between the NRHT and Airport Perimeter Road. This area is intended to provide a physical separation between trail users and vehicular traffic, as well as possibly being the location of a

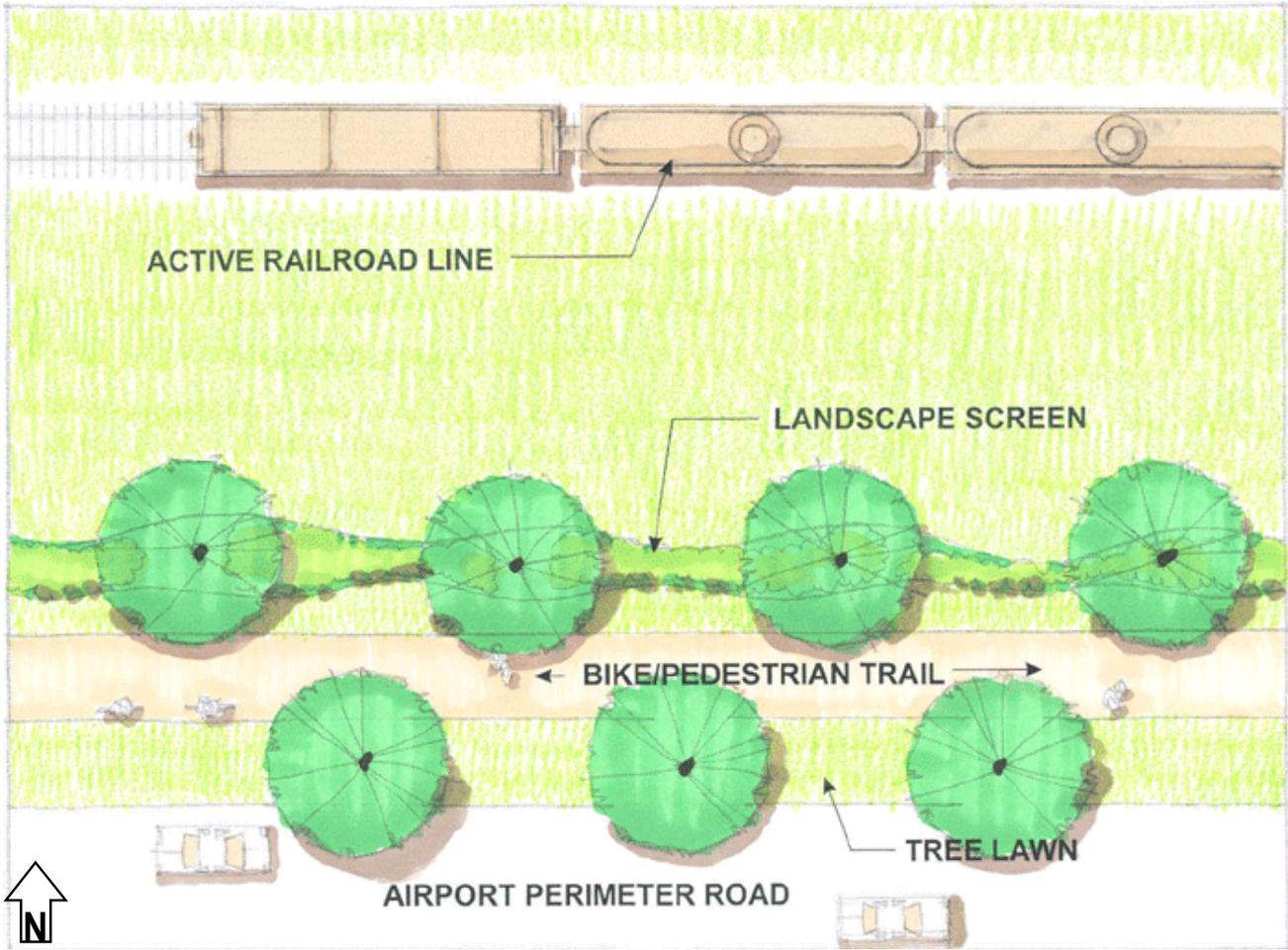
“green area” that contains street trees and lighting.

- A landscape screen is proposed for the area between the trail and the active railroad. The landscape screen is desired because of its aesthetic appeal. It will also serve the purpose of helping to buffer the view of the railroad. Landscape materials should be located so as not to interfere with trail users, as described in the Design Guidelines.
- All crossing improvements including signage, pavement markings, clear zones and sight lines, etc. are to meet or exceed INDOT standards.

RECOMMENDATIONS FOR THE REMAINING CROSS-STATE NRHT IN MARION COUNTY

The following are general recommendations for the development of the proposed NRHT in Marion County.

- Engage communities that are adjacent to the proposed NRHT in Marion County to adopt the master plan.



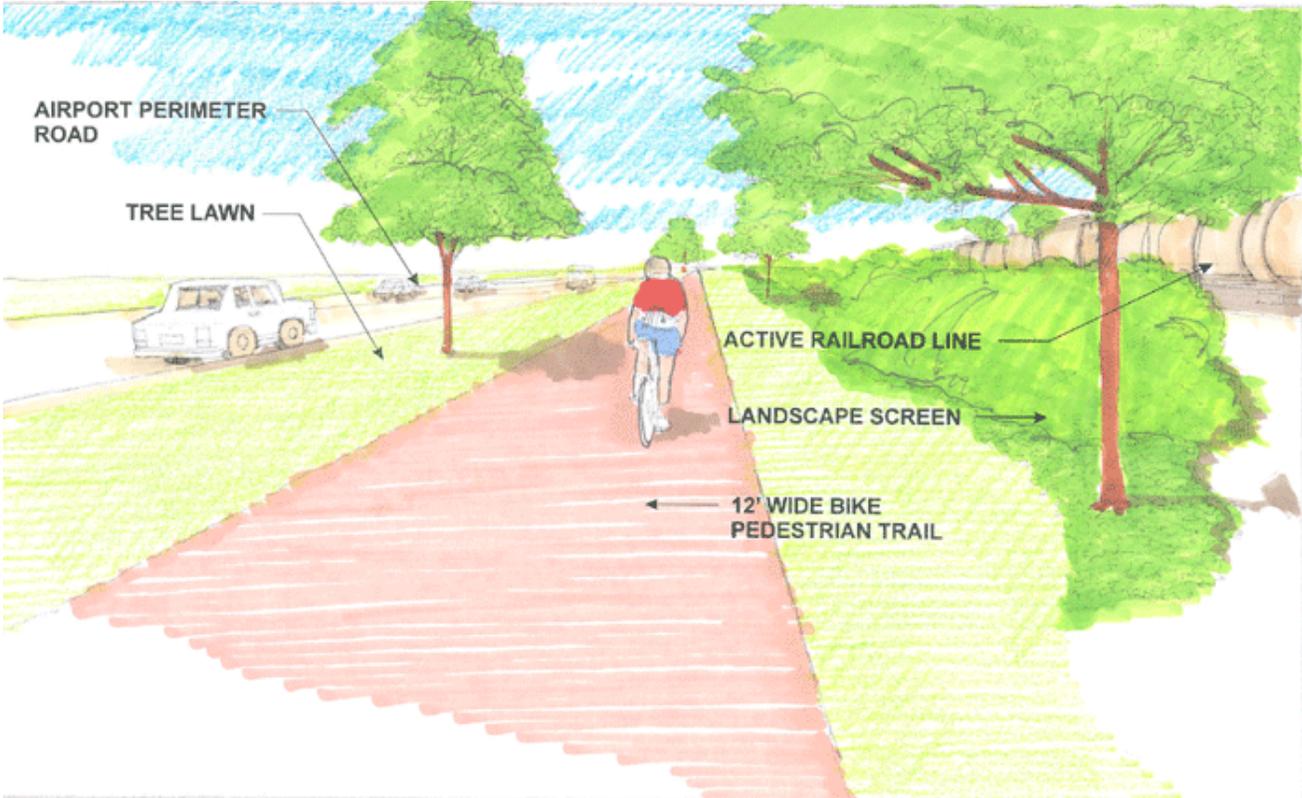
Plan view showing proposed improvements. Source: Storrow Kinsella Associates Inc



View looking west of the area between the active rail line and Airport Perimeter Road. Source: Storrow Kinsella Associates Inc



View looking east showing the area between the active rail line and Airport Perimeter Road. Source: Storrow Kinsella Associates Inc



Perspective sketch showing proposed improvements, looking west. Source: Storrow Kinsella Associates Inc



View looking east across Girls School Road showing the area between the rail line and Airport Perimeter Road. Source: Storrow Kinsella Associates Inc



View from the High School Road bridge looking west at the active rail line. Source: Storrow Kinsella Associates Inc

- Start a public information campaign in Marion County to inform the public about the proposed NRHT.
- Work with local communities to incorporate the proposed trail alignment into local planning documents.
- A bicycle/pedestrian trail is proposed to extend from the Hendricks County line to the planned Eagle Creek Trail.
- Signage should be incorporated at key locations to tell trail users about the history of the Pennsylvania railroad, the National Road and the Indy Greenways network.
- Discussions should take place with property owners that have sites along the corridor where physical competing uses occur. The discussions should seek to determine property owner's willingness to allow the trail on their corridor. If agreements aren't successful, then alternate routes should be considered around the physical competing uses found in Marion County.
- Incorporate the appropriate trail design for the cross-state NRHT in Marion County. Specific concept site applications found in the Design Guidelines include the following:
 - Multi-use trail
 - Railroad co-location
 - Maintenance

CONCEPTUAL STUDY AREA

The following presents an examination of the NRHT's proposed crossing of C. R. 400 E in Hancock County. It is a unique site as it is the eastern end of the Greenfield Pennsy Trail. Conditions for a trail crossing here are representative of many sites where the cross-state NRHT is proposed to cross a two-lane rural road.

Cars driven by Pennsy Trail users often park along the road's west shoulder. If a new trailhead could be provided that would allow vehicles to park off the road, then the result would be a safer condition for trail users and vehicles traveling along C. R. 400 E.

The following presents background, need, opportunities and a conceptual design approach for the trail improvements at the C. R. 400 E crossing.

Site Investigation

Description

The selected Hancock County site occurs at the point where the cross-state NRHT meets C. R. 400 E. This site is also the eastern end of the existing Greenfield Pennsy Trail. Currently parking occurs along C. R. 400 E for Pennsy Trail users.

C. R. 400 E is a two-lane rural road with an assumed relatively low volume of vehicular traffic. The eastern terminus of the Greenfield Pennsy Trail occurs on the west side of the C. R. 400 E crossing. A competing use occurs on the eastside of C. R. 400 E, directly across from the end of the Pennsy. There is no current trailhead for the Pennsy at this location.

Need

The primary need is for the cross-state NRHT to make a crossing of C. R. 400 E and incorporate a trailhead that has horse trailer parking. It would be a safer condition if trail users who currently park their cars along the road shoulder would have a designated trailhead parking lot.

Potential Options

There are several options for the NRHT to cross C. R. 400 E. They include:

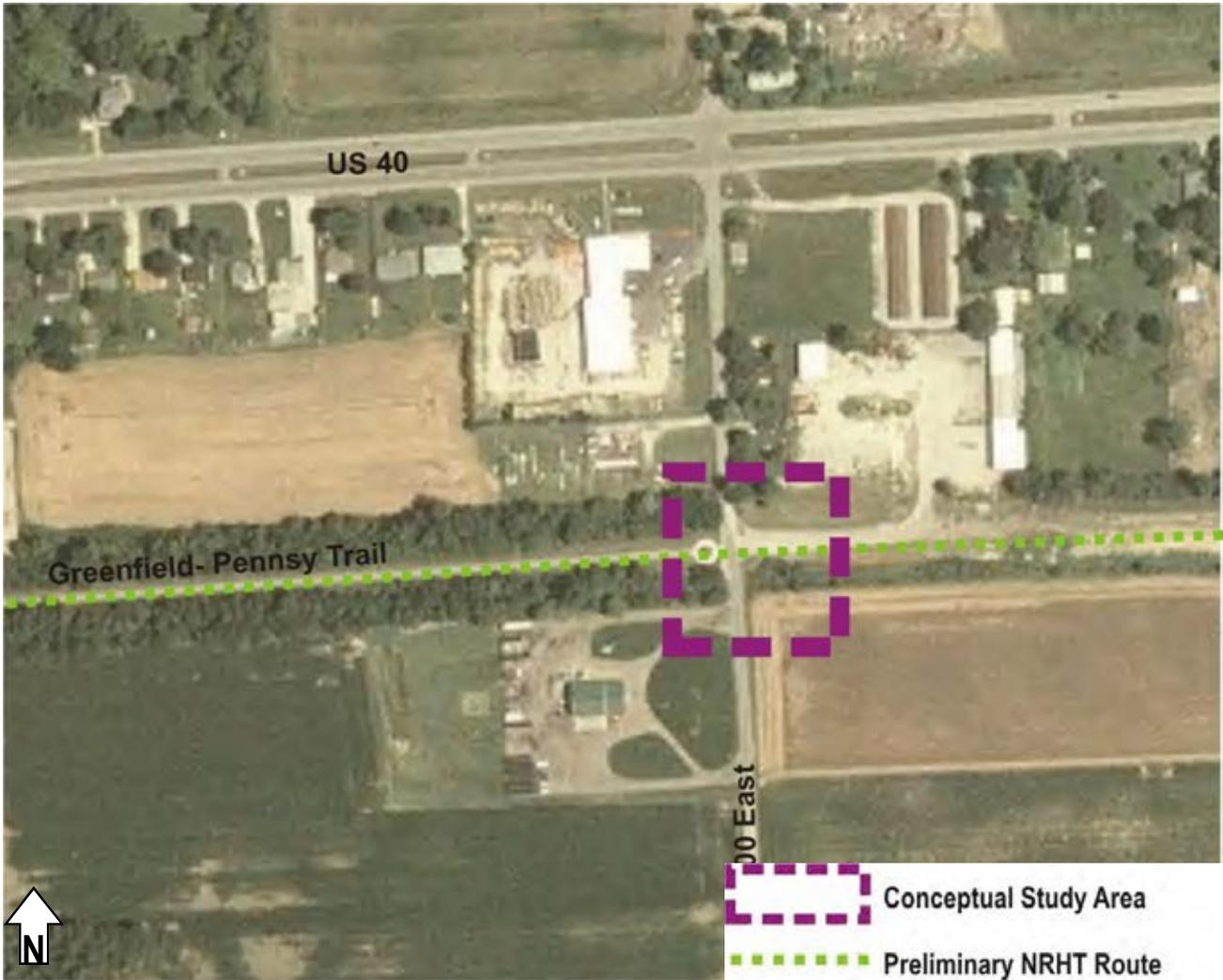
- 1) Create a trailhead north of the trail at C. R. 400 E.
- 2) Extend the trail across C. R. 400 E, directly in line with the existing Pennsy Trail. Incorporate a cross-walk at that location, or
- 3) Create a cross-walk that is close to the trailhead.

Opportunities

It is proposed that an equestrian trail be developed on the east side of C. R. 400 E, as shown on the trail maps. The equestrian trail would be parallel but separated from the



View looking north along C. R. 400 E. The existing Greenfield Pennsy Trail on the left, currently ends at the road. Source: Storrow Kinsella Associates Inc



adjacent bike/pedestrian trail. As a starting/ending point for the equestrian trail, it is recommended that a trailhead with horse trailer parking be developed.

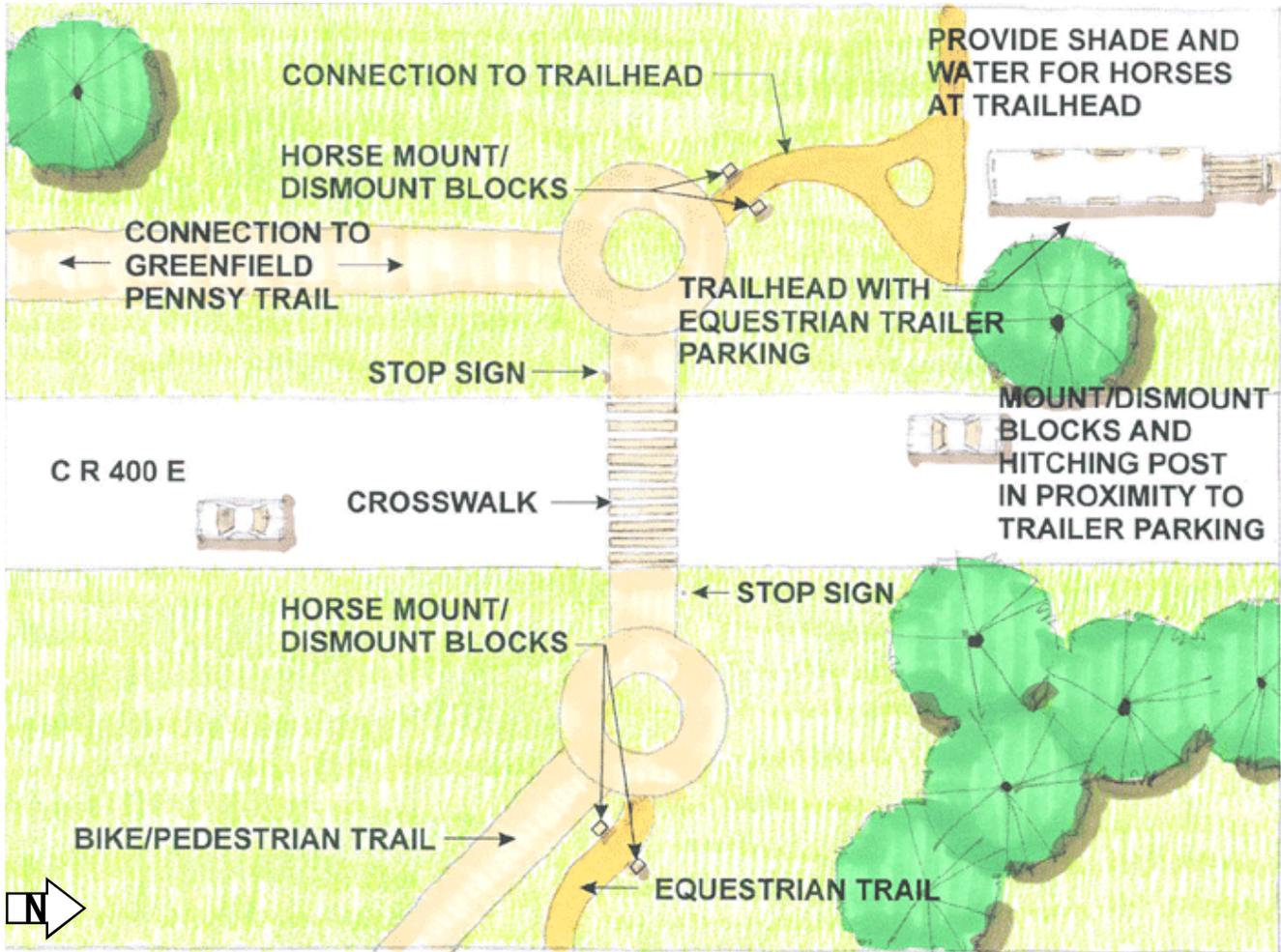
Conceptual Study Area Recommendation—At Grade-Road Crossing and Trailhead

Proposed improvements at the Hancock County concept site include:

- A bicycle/pedestrian trail proposed to be adjacent but separated from an equestrian trail on the eastside of C. R. 400 E, as shown on the Hancock County trail maps. The current Pennsy Trail, located on the west side of C. R. 400 E, has no plans for accommodating an equestrian trail.
- A proposed trailhead on the westside of C. R. 400 E and north of the end of the current Pennsy Trail.
- Improvements are proposed for equestrian riders at the proposed trailhead. These include areas for shade, water, hitching posts and mount/dismount blocks.

- Mount/dismount blocks are proposed on either side of C. R. 400 E at the proposed crosswalk.
- A connection is proposed between the end of the Greenfield Pennsy and the NRHT crossing of C. R. 400 E.
- Crosswalk stripes are proposed for the road pavement.
- Road signs are proposed along C. R. 400 E announcing to drivers that the upcoming crosswalk is approaching, 200 feet before the crossing.
- Standard stop signs are proposed for trail users on both sides of the road.
- Trail features are proposed to safely slow bicycles so they may stop before they cross the road at unsafe speeds.

Proposed improvements for the Hancock County site are conceptually shown on the graphics in this section. All crossing improvements including signage, pavement markings, clear zones and sight lines, etc. are to meet or exceed INDOT standards.



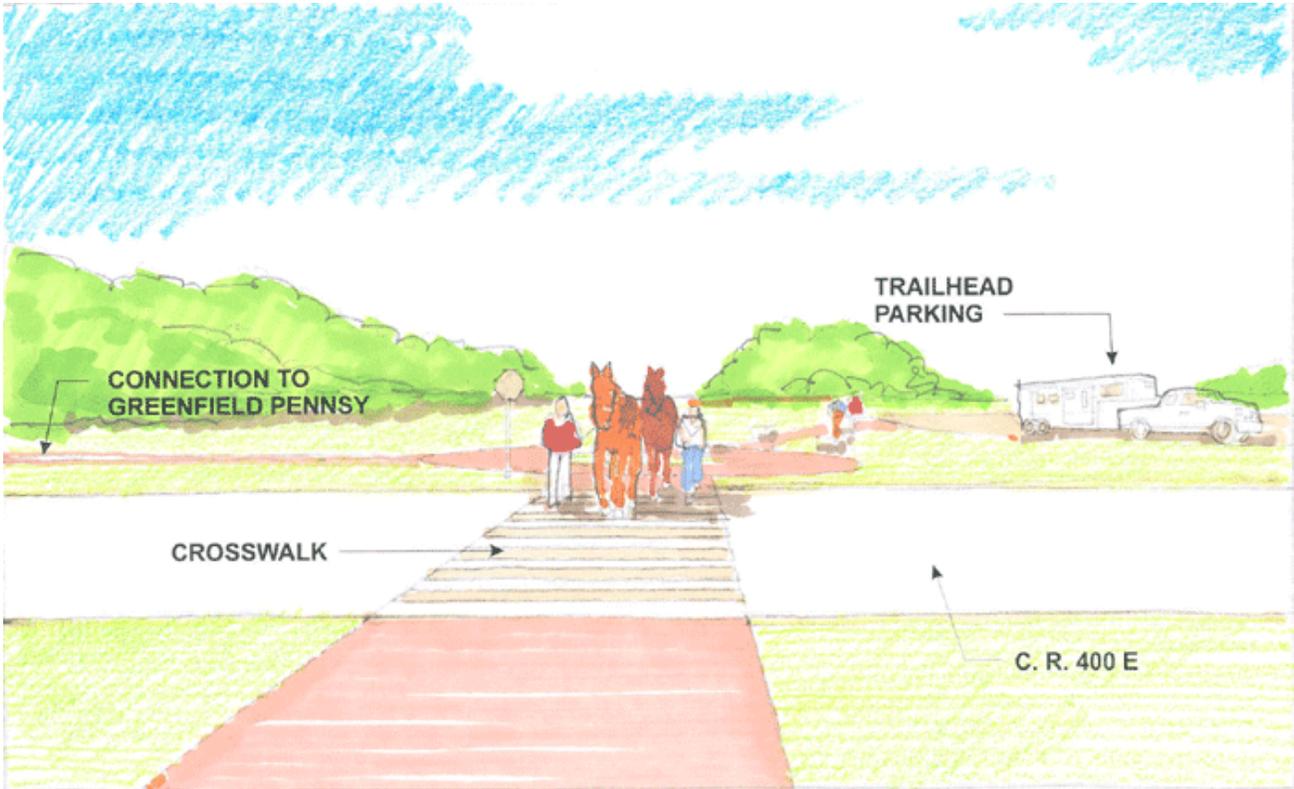
Plan view showing proposed improvements. Source: Storrow Kinsella Associates Inc



View at approximate location where the NRHT is proposed to cross C. R. 400 E. Source: Storrow Kinsella Associates Inc



View north of potential trailhead site showing school bus facility. Source: Storrow Kinsella Associates Inc



Perspective sketch showing proposed improvements, looking west. Source: Storrow Kinsella Associates Inc



View of potential trailhead site. Source: Storrow Kinsella Associates Inc



View from C. R. 400 E looking west. Source: Storrow Kinsella Associates Inc



RECOMMENDATIONS FOR THE REMAINING CROSS-STATE NRHT IN HANCOCK COUNTY

The following are general recommendations for the development of the proposed trail in Hancock County.

- Engage communities that are adjacent to the proposed NRHT in Hancock County to adopt the master plan.
- Start a public information campaign in Hancock County to inform the public about the proposed NRHT.
- Work with local communities to incorporate the proposed trail alignment into local planning documents.
- Signage should be incorporated at key locations to tell trail users about the history of the railroad, the National Road and communities along the corridor.
- Discussions should take place with property owners that have sites along the proposed trail where competing use occurs. The discussions should seek to determine property owner's willingness to allow the proposed trail on their corridor. If agreements aren't successful, then alternate routes should be considered around the competing use sites found in Hancock County.
- Incorporate the appropriate trail design for the cross-state NRHT in Hancock County. Specific concept site applications found in the Design Guidelines include the following:
 - Multi-use trail and equestrian trail
 - Two-lane road crossing
 - Trailhead for multi-use trail combined with equestrian trail
 - Maintenance



*View looking west from C. R. 400 E at the end of the Greenfield Penny Trail.
Source: Storrow Kinsella Associates Inc*

CONCEPTUAL STUDY AREA

The following is an examination of the NRHT's proposed use of an existing railroad bridge in Henry County. The location occurs on the former railroad corridor where it makes a crossing over the Historic National Road in the community of Raysville. The site is next to the intersection of the Historic National Road and Star Boulevard. The former railroad corridor was constructed so that it is elevated in this part of Henry County, to allow trains to pass above the roads in Raysville and Knightstown.

The following presents background, need, opportunities and a conceptual design approach for the bridge crossing.

Site Investigation

Description

This location along the NRHT's proposed alignment contains an elevated corridor along with a steel railroad bridge and its abutments.

Steep side slopes currently lead down from the top of the corridor, presenting a challenge for trail users to gain access to the top. The side slopes are also heavily vegetated with stands of brush and trees, which may be beneficial in helping minimize erosion, but the vegetation will need to be thinned or removed for trail access and use as well as views out from the corridor.

Need

The primary need is to provide trail access for the community along with trailhead parking. The cross-state NRHT alignment is proposed to contain a bicycle/pedestrian trail on top of the elevated corridor in this part of Henry County. The bridges that remain in this area of the county will provide trail users with the ability to cross over streets below, which will help minimize conflicts with vehicular traffic.

The elevated corridor however presents a challenge for the public to have access to the trail. Access points will need to be placed in locations that serve the communities in which the elevated corridor will run.

Potential Options

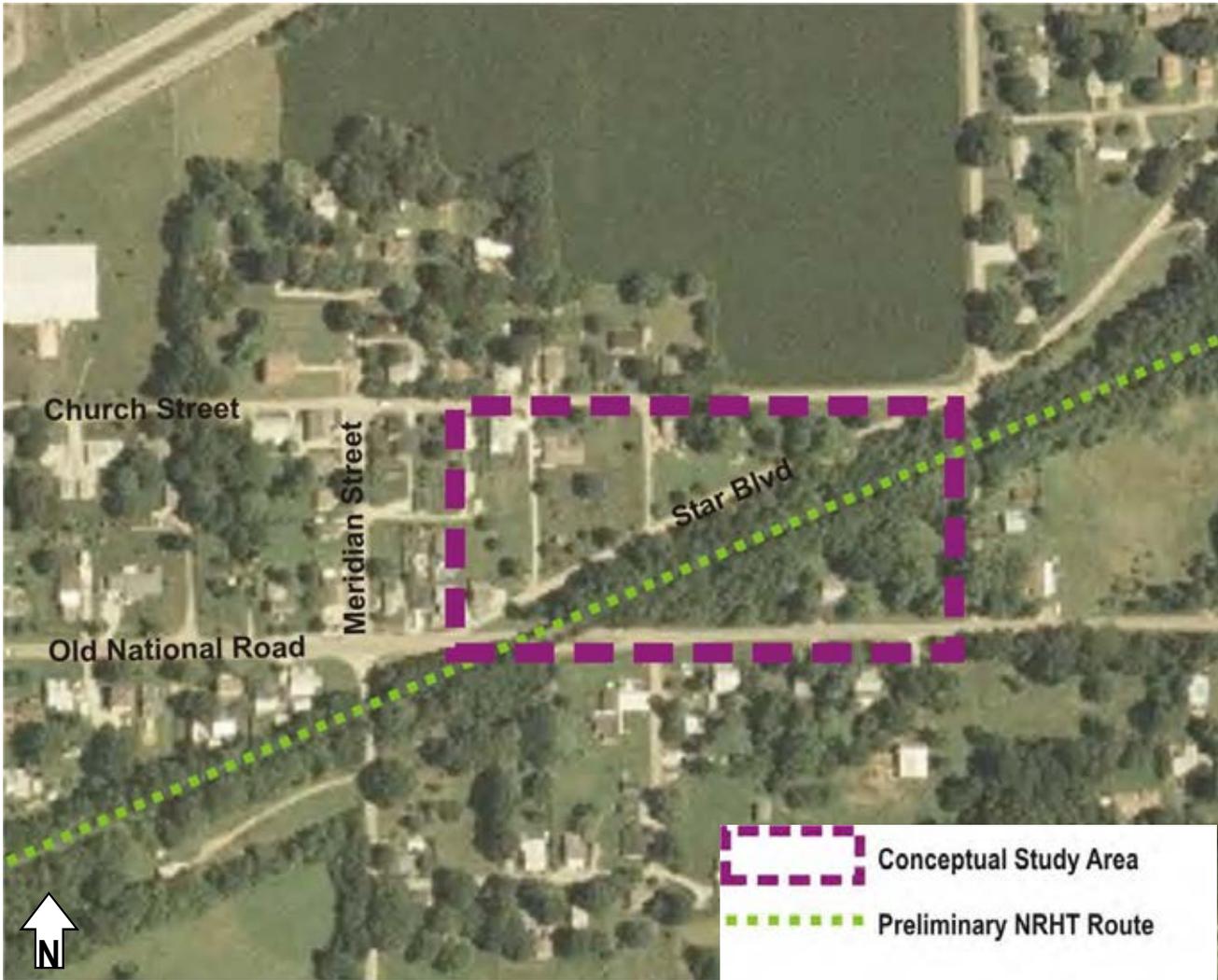
The alignment of the NRHT across the community of Raysville is proposed to take place on top of the elevated former railroad corridor.

The selected conceptual site is representative of several locations in this part of Henry County where the elevated corridor passes through a community. Options for the cross-state NRHT include either developing public access points or not.

This Conceptual Study will focus on the possible solution of



View of the existing elevated corridor, railroad bridge, and possible site where a trailhead may be developed. Source: Storrow Kinsella Associates Inc



creating a trail ingress/egress point and trailhead parking at the location of an existing railroad bridge.

Opportunities

There are a limited number of trail access points for residents that live in proximity to this proposed NRHT segment. The Henry County concept site includes the following proposed features: NRHT access, a small trailhead, and if possible a refurbished train bridge.

Incorporating a trailhead and providing a means for accessing the elevated corridor will allow the residents of Raysville an opportunity to enjoy the NRHT corridor that will be in their back yard.

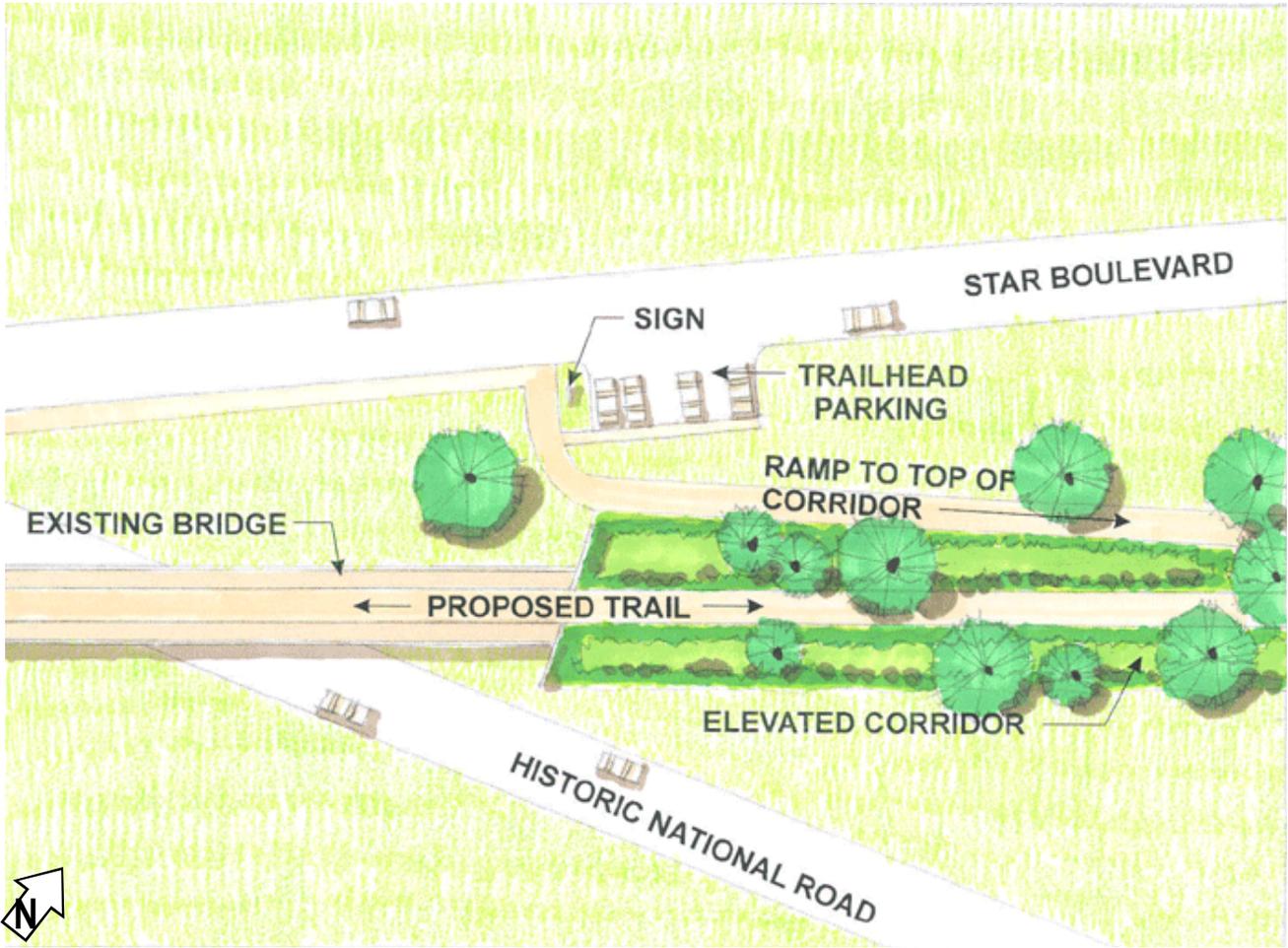
The corridor is visually estimated to be approximately 15 to 20 feet above the adjacent grade. Once the trail is implemented, the higher vantage point will allow users the opportunity for a unique view of the adjacent landscape.

**Conceptual Study Area Recommendation—
Bridge Use and Trail Access**

With some modifications to make it suitable for trail use, the existing bridge offers the opportunity to carry NRHT users over the Historic National Road.

Proposed Henry County concept site improvements include:

- Incorporating a proposed bicycle/pedestrian trail on top of the elevated corridor and utilizing if possible, the existing bridge for the NRHT to cross over the Historic National Road. The proposed NRHT alignment is shown on the Henry County trail maps.
- Clearing vegetation along the top of the slope to allow for trail implementation and use. Clearances to be in accordance with information shown in the Design Guidelines.
- Determine the feasibility of using the existing steel bridge to carry the trail. Investigation should be made into the



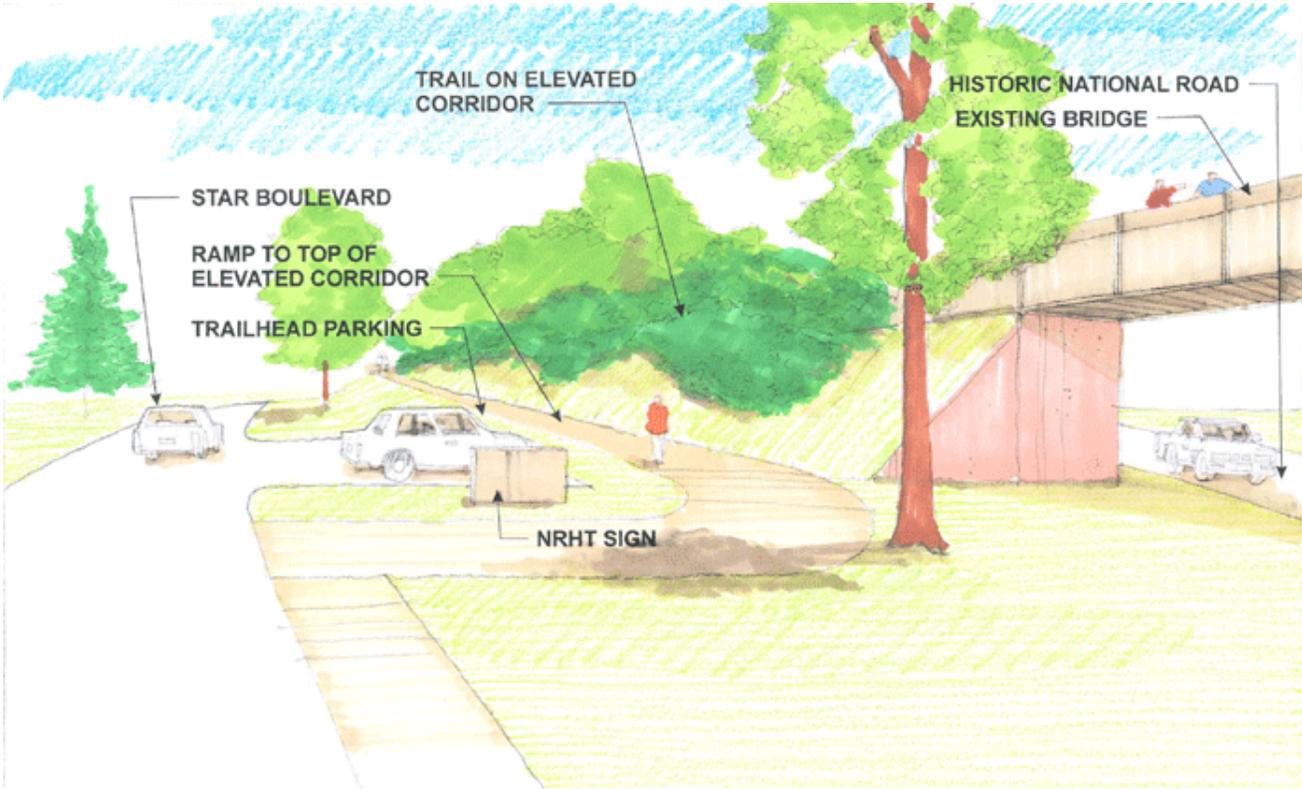
Plan view showing proposed improvements. Source: Storrow Kinsella Associates Inc



View looking from the elevated bridge out over the Historic National Road below. Source: Storrow Kinsella Associates Inc



View from Star Boulevard looking toward the intersection with the Historic National Road. Source: Storrow Kinsella Associates Inc



Perspective sketch showing proposed improvements, looking northeast along Star Boulevard. Source: Storrow Kinsella Associates Inc



View of the former railroad corridor. Source: Storrow Kinsella Associates Inc



View of the existing bridge over the Historic National Road in Raysville.. Source: Storrow Kinsella Associates Inc

structural suitability, historic implications, safety needs, appropriate decking, railing, painting, routine maintenance required etc. Conducting a feasibility study will be necessary, especially if this portion of the trail will be designed and implemented with government funding.

- A potential trailhead is proposed to be located at the northern base of the elevated corridor. Vehicular access to the trailhead is proposed to take place from Star Boulevard.
- Propose adding a sign at the trailhead that identifies the public entrance for the NRHT and the location of the public parking lot. The sign is proposed to be located so that it may be seen by vehicular traffic traveling along Star Boulevard.
- A ramp (5% maximum slope) is proposed along the northern edge of the elevated corridor to allow access to the NRHT at the top of the corridor, from the proposed trailhead at the bottom of the slope.
- It is proposed that the existing bridge be painted in a color that is consistent with other NRHT improvements.
- Because the NRHT crosses the Historic National Road, it is proposed that a NRHT symbol/logo be added to the bridge to announce the location and crossing of the NRHT.

Proposed improvements for the Henry County site are conceptually shown on the graphics in this section.

RECOMMENDATIONS FOR THE REMAINING CROSS-STATE NRHT IN HENRY COUNTY

The following are general recommendations for the development of the cross-state trail in Henry County.

- Engage communities that are adjacent to the proposed NRHT in Vigo County to adopt the master plan.
- Start a public information campaign in Vigo County to inform the public about the proposed NRHT.
- Work with local communities to incorporate the proposed trail alignment into local planning documents.
- At the western end of the county, a proposed multi-use trail containing both a bicycle/pedestrian path and equestrian trail will extend from Charlottesville in Hancock County into Henry County. The equestrian portion of the proposed trail is expected to end at the intersection of County Line Road and C. R. 550 W in Rush County, but the proposed bike and pedestrian trail will continue east. At the point where the proposed equestrian trail ends, a trailhead should be considered for placement that could accommodate horse trailer parking, perhaps in conjunction with the nearby high school facilities.
- Signage should be incorporated at key locations to tell trail users about the history of the railroad, the Historic National Road and communities along the corridor.
- The combined proposed bicycle/pedestrian and equestrian trail would resume at Lewisville and continue east to the

Wayne County line.

- Discussions should take place with property owners that have sites along the proposed trail where competing uses occur. The discussions should seek to determine property owner's willingness to allow the proposed trail on their corridor. If agreements aren't successful, then alternate routes should be considered around the competing use sites found in Henry County. These locations include sites in Dunreith, near the crossing at C. R. 350 E and in Straughn.
- Incorporate the appropriate trail design for the cross-state NRHT in Henry County. Specific concept site applications in the Design Guidelines include the following:
 - Multi-use trail
 - Rehabilitated bridge
 - Trailhead for multi-use trail
 - Maintenance



View looking east from the existing bridge showing overgrown conditions along top of the elevated former railroad corridor. Source: Storrow Kinsella Associates Inc

CONCEPTUAL STUDY AREA

The following is an examination of the proposed crossing of the NRHT at the intersection of U. S. 40/National Road and Swallow Road in western Wayne County. The site was selected because of the challenges in providing a safe crossing for trail users across a four-lane national highway, creating access to the elevated corridor that exists on the east side of Swallow Road and incorporating a trailhead with vehicle parking.

The following presents background, need, opportunities and a conceptual design approach for making a road crossing and creating access to the corridor.

Site Investigation

Description

The Wayne County trail concept site occurs in the western part of the county – at the location where the former railroad corridor intersects with the U. S. 40/National Road corridor and Swallow Road.

The corridor is elevated east of Swallow Road. Previously, a railroad bridge spanned over U. S. 40/National Road, but the bridge has been removed.

Need

The primary need is for the NRHT to make a safe crossing of the four-lane highway and to incorporate a trailhead with horse trailer parking. Users of the cross-state NRHT will need to safely cross the four-lane highway and have the ability to easily access the elevated corridor.

Potential Options

There are several options for providing trail users with safe access across the highway. These options include the following:

- Replace the removed bridge with a new bridge, or
- Install a relocated bridge that can span the highway, or
- Create an at-grade road crossing

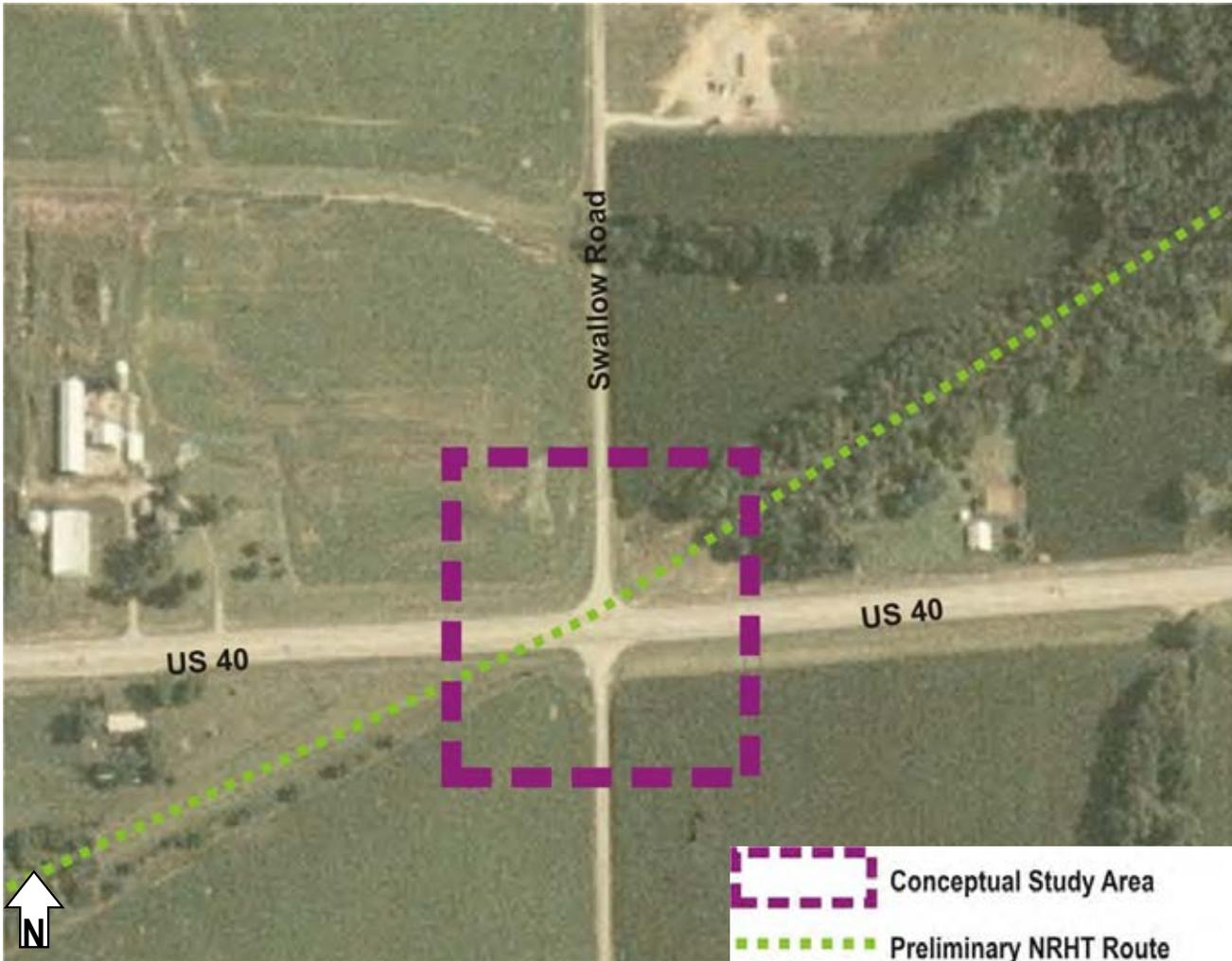
Any discussion involving the placement of a bridge over the U. S. 40/National Road corridor will require further study and evaluation of the situation, beyond the scope of this Development Guide. The following pages of this document will therefore focus on the possible creation of an at-grade road crossing of U. S. 40/National Road.

Opportunities

As mentioned, the former railroad corridor east of Swallow Road is elevated. When the trail is implemented, it will offer trail users with the opportunity to have a unique perspective to view out over the adjacent country-side. Specific viewing areas could be developed along the trail for trail users comfort. Adding areas for seating and shade would contribute to the



View looking south along Swallow Road toward the U. S. 40 intersection.
Source: Storrow Kinsella Associates Inc



public's trail experience.

As noted earlier in the NRHT Development Guide, whenever the NRHT crosses a major road/highway it is an opportunity to display the NRHT logo to identify the location of the trail to passing motorists. An at-grade crossing of the U. S. 40/ National Road would offer an ideal location for the display of the NRHT logo.

The highway crossing also presents an opportunity for trail users to learn of the history and importance of the National Road.

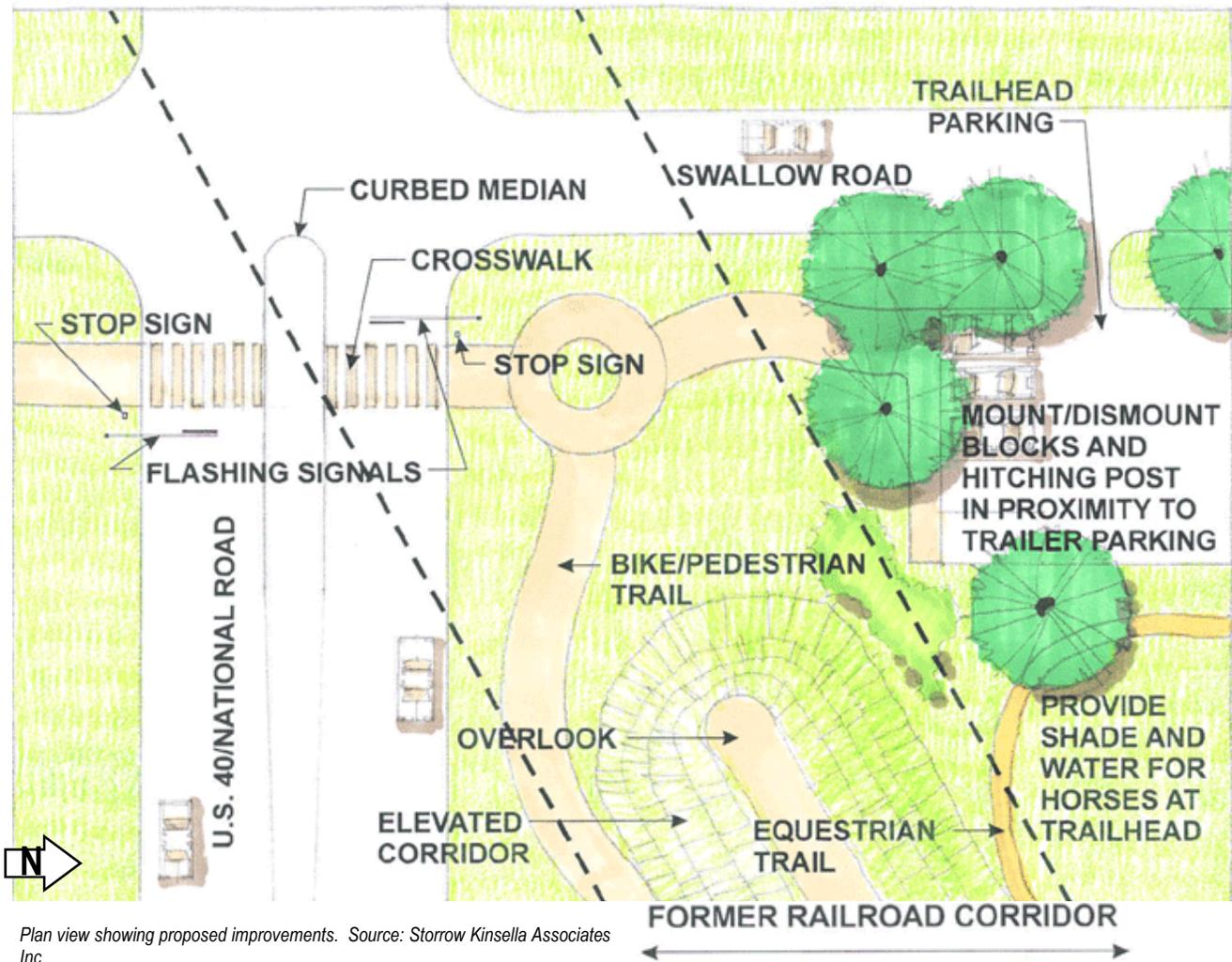
Conceptual Study Area Recommendation—At-Grade Crossing of U. S. 40/National Road and New Trailhead

The proposed Wayne County concept site occurs where the former railroad corridor intersects with the north/south two-lane Swallow Road and the four-lane east/west U. S. 40/National

Road. Swallow Road is a rural road with an assumed low-volume of vehicular traffic. The site is one of several locations in the state where the NRHT is proposed to cross the National Road.

The NRHT alignment is proposed to contain a bicycle/ pedestrian trail on both sides of Swallow Road, and a proposed parallel and separate equestrian trail on the eastside of Swallow Road. The corridor east of Swallow Road is elevated. The former railroad bridge that once carried trains over U. S. 40/ National Road has been removed along with its abutments. The remaining elevated corridor ends abruptly, but because of its height relative to the surrounding countryside, the corridor on the eastside of Swallow Road may provide trail users with a small overlook. A parcel of property east of Swallow Road and north of the former railroad corridor may offer the potential to be developed as a trailhead.

Proposed improvements for the Wayne County site are conceptually shown on the graphics in this section.



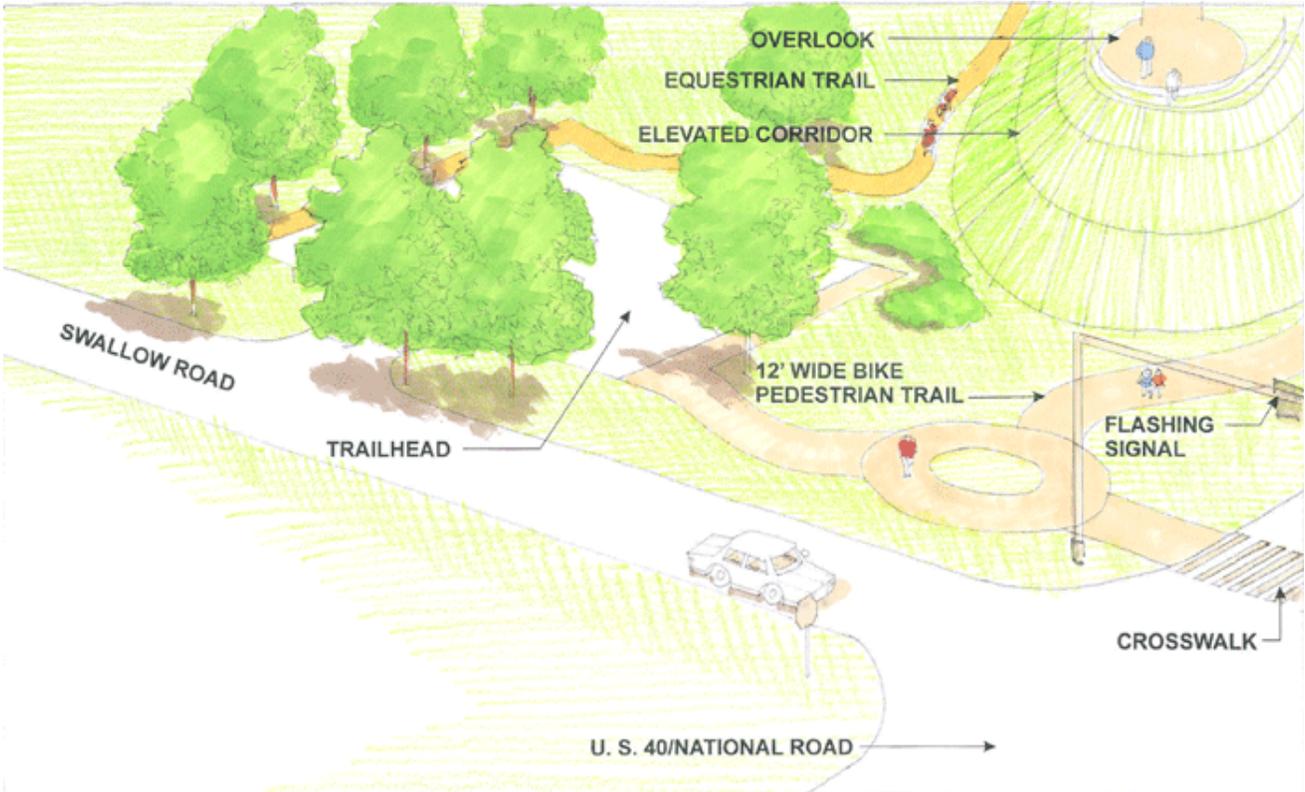
Plan view showing proposed improvements. Source: Storrow Kinsella Associates Inc



View of the U. S. 40 corridor looking west. Source: Storrow Kinsella Associates Inc



View looking north from the U. S. 40/Swallow Road intersection. Source: Storrow Kinsella Associates Inc



Perspective sketch showing proposed improvements, looking northeast. Source: Storrow Kinsella Associates Inc



View looking north along Swallow Road. Source: Storrow Kinsella Associates Inc



View looking southwest at the road intersection and trail corridor beyond. Source: Storrow Kinsella Associates Inc

Proposed improvements include:

- A bicycle/pedestrian trail is proposed to be located on the former railroad corridor, on both sides of Swallow Road. An equestrian trail is proposed to be located on the former railroad corridor on the eastside of Swallow Road. The proposed alignment for both the bike/pedestrian trail and the equestrian trail is shown on the Wayne County trail maps.
- A trailhead may be located east of Swallow Road, north of the corridor. It may be possible that horse trailer parking could be integrated into the trailhead.
- Improvements are proposed for equestrian riders at the proposed trailhead. These include areas for shade, water, hitching posts and mount/dismount blocks.
- Grading along the sides of the elevated corridor to the east of Swallow Road is proposed to allow both the bicycle/pedestrian trail and equestrian trail to gain access to the top of the elevated corridor. Both trails are proposed to have a maximum slope of 5% from the top of the corridor to a landing area at the base of the corridor. It may be possible that the equestrian trail ascends the slope on one side of the corridor, and the bicycle/pedestrian trail ascends the slope on the other side. A transition area is proposed for the area between the base of the elevated corridor/Swallow Road and U. S. 40/ National Road. The transition area is proposed to be relatively flat. Trail improvements would need to take drainage into account. The trail slope and transition area would encourage bicycle riders to slow to a safe speed and stop before crossing the U. S. 40/National Road.
- Crosswalk stripes are proposed for the road pavement.
- Road signs along U. S. 40/National Road are proposed to announce to drivers of the upcoming crosswalk, before the crossing
- Standard stop signs are proposed for trail users on both sides of U. S. 40/National Road.
- Flashing signals are proposed on U. S. 40/National Road National Road to safely allow pedestrians the ability to cross a four-lane highway.
- A curbed median is proposed for U. S. 40/ National Road to offer a safe place for pedestrians.
- Trail features are proposed to slow bicycles and encourage them to stop before crossing U. S. 40/ National Road at unsafe speeds.
- The proposed trail crossing of the U. S. 40/National Road and proposed addition of a new curbed median will require a roadway design that undergoes INDOT review and approval. All crossing improvements including signage, pavement markings, clear zones and sight lines, etc. are to meet or exceed INDOT standards.

RECOMMENDATIONS FOR THE REMAINING CROSS-STATE NRHT IN WAYNE COUNTY

The following are general recommendations for the development of the trail in Wayne County.

- Engage communities that are adjacent to the proposed NRHT in Wayne County to adopt the master plan.
- Start a public information campaign in Wayne County to inform the public about the proposed NRHT.
- Work with local communities to incorporate the proposed trail alignment into local planning documents.
- At its beginning point in Wayne County the proposed trail may contain both a bicycle/pedestrian path and equestrian trail that would extend to the east from Henry County for a short distance. The bicycle/pedestrian path will be adjacent to, but physically separated from the equestrian trail. The equestrian portion of the proposed trail is expected to end at a point near the Huddleston House in Mount Auburn, but the proposed bicycle/pedestrian path will continue east. At the point where the equestrian trail ends, a trailhead should be considered that could accommodate horse trailer parking.
- Signage should be incorporated at key locations to tell trail users about the history of the railroad, the Historic National Road and communities along the corridor.
- The combined proposed bicycle/pedestrian and equestrian trail would resume again at Swallow Road, east of Pennville and continue east to Salisbury Road on the west side of Richmond.
- A scenic trail crossing over the Greenes Fork Whitewater River could include potential amenities such as seating, signage, and an overlook to provide trail users with a unique trail experience.
- Discussions should take place with property owners that have sites along the corridor where competing uses occur. The discussions should seek to determine property owner's willingness to allow the proposed trail on their corridor. If agreements aren't successful, then alternate routes should be considered around the competing uses found in Wayne County.
- Incorporate the appropriate trail design for the cross-state NRHT in Wayne County. Specific concept site applications found in the Design Guidelines include the following:
 - Multi-use trail and equestrian trail
 - Trailhead for multi-use trail combined with equestrian trail
 - Overlook
 - Maintenance

EXECUTIVE SUMMARIES

The following pages give an executive summary including overview, conditions, alignment, endorsements and support, recommendations and overall county map for each of the eight counties:

- Vigo County
- Clay County
- Putnam County
- Hendricks County
- Marion County
- Hancock County
- Henry County
- Wayne County

VIGO COUNTY

Overview

The NRHT is proposed to begin its eastward trek across Indiana with a start in Vigo County. The trail is proposed to cross the county from west to east and connect the communities of Larimer Hill, Toad Hop, West Terre Haute, Terre Haute, East Glenn, Seelyville and Tabertown. The trail is proposed to connect both sides of the Wabash River and be in relatively close proximity to the National Road. Plans are currently under consideration for extending the NRHT west into Clark County, Illinois.

Conditions

The trail is proposed to be in close proximity to the Historic National Road in the western part of Vigo County. Starting off in rural conditions, the trail is proposed to pass through the urbanized and developed areas of West Terre Haute and Terre Haute. A bicycle/pedestrian trail is proposed for the western portion of Vigo County

In the eastern half of the county, the trail is proposed to travel through rural areas and passes through the community of Seelyville. An equestrian trail is proposed to be included with a bicycle/pedestrian trail for east Vigo County.

Alignment

The first segment of the Indiana NRHT is proposed to begin at the Illinois state line, in close proximity to the U. S. 40/National Road corridor. The trail is proposed to move to the east, crossing the Wabash River. Once past the river the trail is proposed to enter the City of Terre Haute where it will follow the alignment of the existing local National Road Heritage Trail until it reaches the historic Twiggs Rest Area east of the city. From here the NRHT is proposed to follow the alignment of the former railroad corridor to the Vigo/Clay County border.

The trail is expected to start off as a bike/pedestrian trail until it reaches the east side of Terre Haute. An equestrian trail is anticipated to be developed along side the bike/pedestrian path in the eastern part of Vigo County.

Endorsements and Support

Vigo County organizations and stakeholders having a stated interest in the NRHT and its future development include:

- Wabash Valley Community Foundation
- West Central Indiana Economic Development District
- Vigo County Board of County Commissioners
- Vigo County Parks Department
- Vigo County Health Department
- Mayor of Terre Haute
- Terre Haute Parks Department
- National Road Bicycle Club
- Art Spaces: Wabash Valley Outdoor Sculpture Collection



Vigo County shown in state context map

The NRHT in Vigo County	
18	Miles of trail
27	At grade road crossings
0	At grade railroad crossings
0	Existing railroad bridges
4	Railroad bridges that have been removed
4	Trail crossing of U. S. 40/ National Road
2	Locations of competing use
Source: Storrow Kinsella Associates Inc	

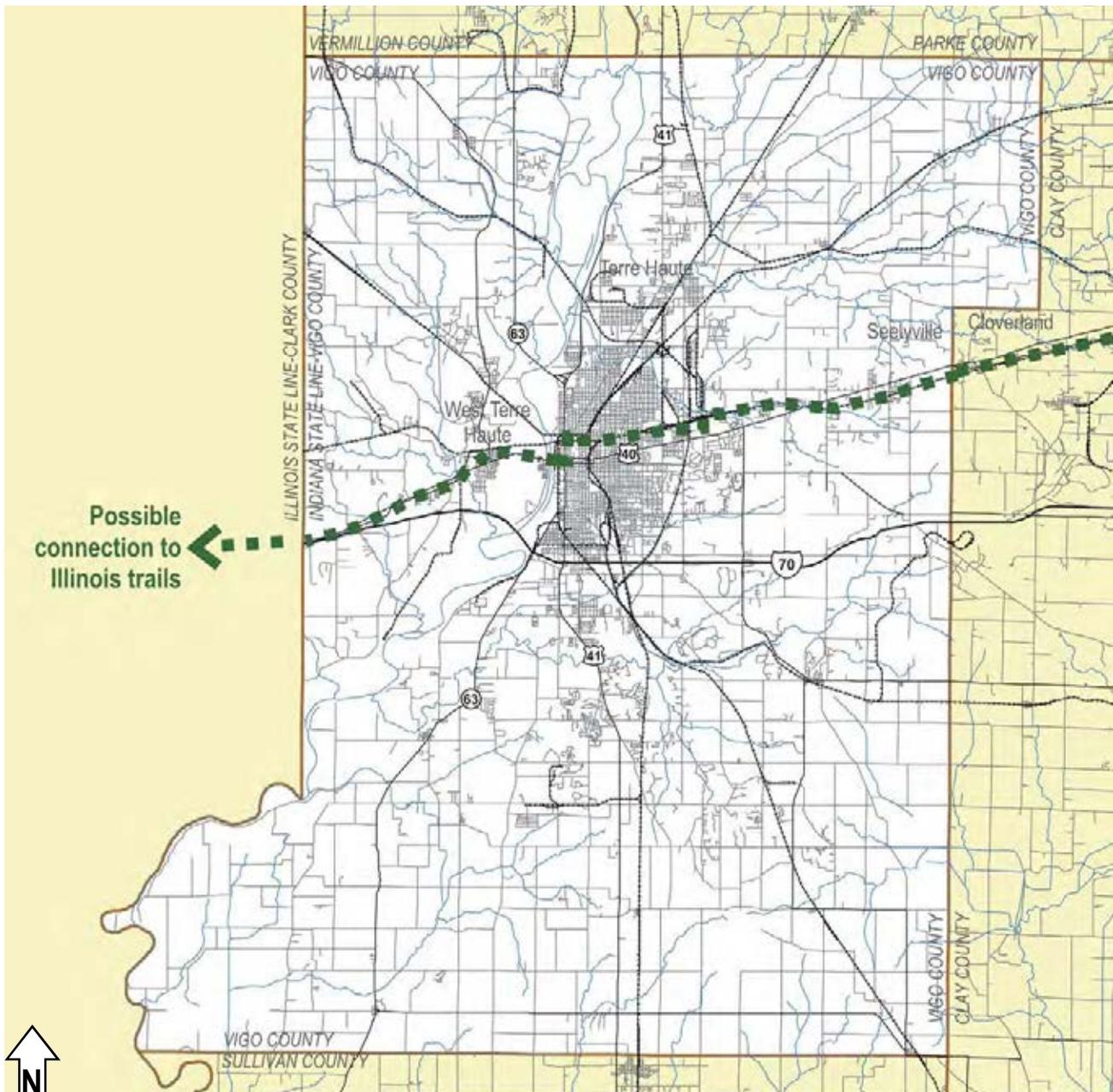
VIGO COUNTY LEGEND

■ ■ ■ ■ ■ ■ ■ ■ ■ ■ Potential NRHT Route

Recommendations

For the full implementation of the NRHT in Vigo County to occur, it is proposed that a series of events and action steps first take place. The following steps may be helpful in the process.

- Engage Vigo County communities adjacent to the NRHT proposed alignment to adopt the Development Guide.
- Start a public information campaign in Vigo County to inform the public about the NRHT.
- Work with local communities to incorporate the proposed trail alignment into local planning documents.



CLAY COUNTY

Overview

The NRHT is proposed to make a west to east trek across Clay County – one of eight counties in Indiana that contains the Historic National Road. The trail is proposed to remain in relatively close proximity to the National Road for its entire run in Clay County.

At a minimum, the NRHT in Clay County is proposed to accommodate a bicycle/pedestrian trail. However, in the westernmost and easternmost parts of Clay County, an equestrian trail is proposed to be included alongside the bicycle/pedestrian trail.

Conditions

The trail is proposed to utilize the former Pennsylvania/Vandalia Railroad corridor. In the western half of Clay County, the trail alignment is proposed to travel through several wooded areas. Often in this area, the former railroad corridor is elevated above the surrounding grade.

The trail is proposed to run through the City of Brazil, and be in relatively close proximity to the population center of the county. In the eastern half of Clay County, the trail is proposed to travel through the small communities of Knightsville and Harmony as well as rural areas that exist alongside the Historic National Road.

Alignment

The NRHT is proposed to begin at the western Vigo/Clay County border and follow the alignment of the former Pennsylvania/Vandalia Railroad corridor. The proposed alignment takes the NRHT through Brazil, which is the county seat and largest town in Clay County.

Endorsements and Support

The NRHT has received endorsements from the following Clay County organizations and stakeholders

- Clay County Board of County Commissioners
- Clay Community Parks Association
- Brazil Common Council (City Council)
- Brazil Parks Board
- Harmony Town Council

Recommendations

The following are recommended steps for the implementation of the NRHT proposed for Clay County.

- Engage Clay County communities adjacent to the NRHT proposed alignment to adopt the Development Guide.
- Start a public information campaign in Clay County to inform the public about the NRHT.
- Work with local communities to incorporate the proposed trail alignment into local planning documents.



Clay County shown in state context map

The NRHT in Clay County	
13	Miles of trail
17	At grade road crossings
0	At grade railroad crossings
4	Existing railroad bridges
7	Railroad bridges that have been removed
1	Trail crossing of U. S. 40/ National Road
7	Locations of competing use
Source: Storrow Kinsella Associates Inc	

PUTNAM COUNTY

Overview

In Putnam County the NRHT is proposed to link the communities of Reelsville, Greencastle and Fillmore. In the western part of the county, the trail is proposed to be in close proximity to the Historic National Road. However, by utilizing the former railroad corridor that travels through Greencastle, the proposed trail alignment deviates from the National Road as it moves east. The NRHT and the National Road corridors are proposed to be separated by several miles in distance by the time the trail is proposed to enter the Town of Fillmore.

While a pedestrian/bike trail is proposed to cross the entire county, an equestrian trail is proposed for both the western and eastern parts of the county.

Conditions

The trail is expected to encounter a variety of conditions in Putnam County with its proposed alignment. Rolling topography, wooded ravines and a crossing of Walnut Creek may provide trail users in the western part of the county with scenic conditions. In the middle portion of Putnam County, trail users will encounter the development around the City of Greencastle. In the eastern part of the county, the trail is proposed to travel across rural and relatively flat agricultural land.

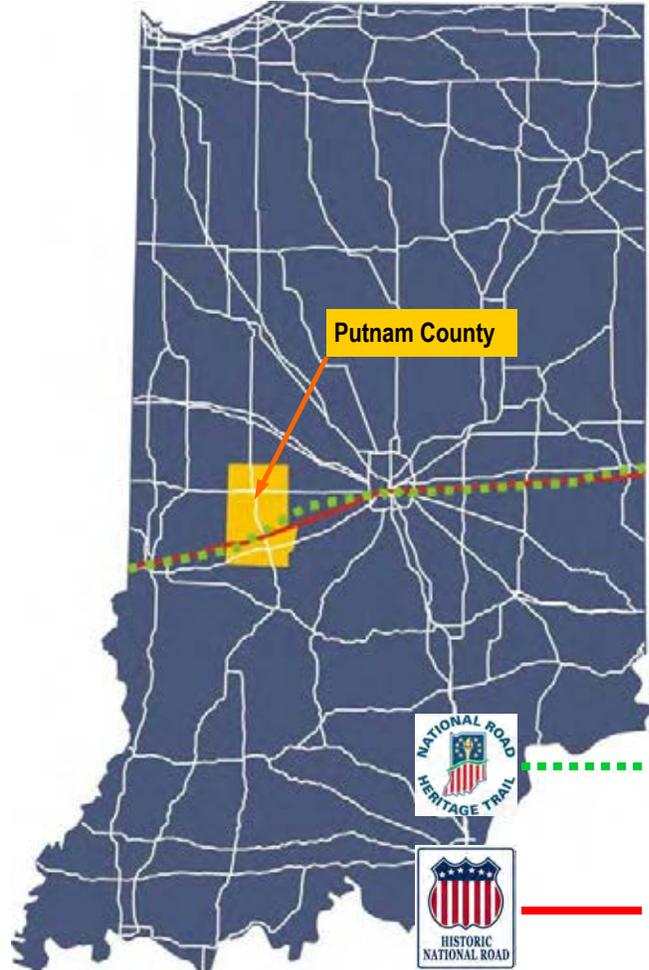
Alignment

The former Pennsylvania/Vandalia Railroad corridor is proposed to provide the alignment for the NRHT across Putnam County. In Greencastle, the NRHT is proposed to utilize the People Pathways Trail system.

Endorsements and Support

Support for the NRHT is growing in Putnam County, due in large part to the success of the People Pathways Trail System. Because of this, the NRHT has received endorsements from the following Putnam County organizations and stakeholders:

- Putnam County Board of County Commissioners
- People Pathways
- Greencastle Board of Park Commissioners
- Greencastle Common Council (city council)
- Fillmore Town Council



Putnam County shown in state context map

The NRHT in Putnam County	
23	Miles of trail
13	At grade road crossings
1	At grade railroad crossings
1	Existing railroad bridges
0	Railroad bridges that have been removed
2	Trail crossings of U. S. 40/ National Road
2	Locations of competing use
Source: Storrow Kinsella Associates Inc	

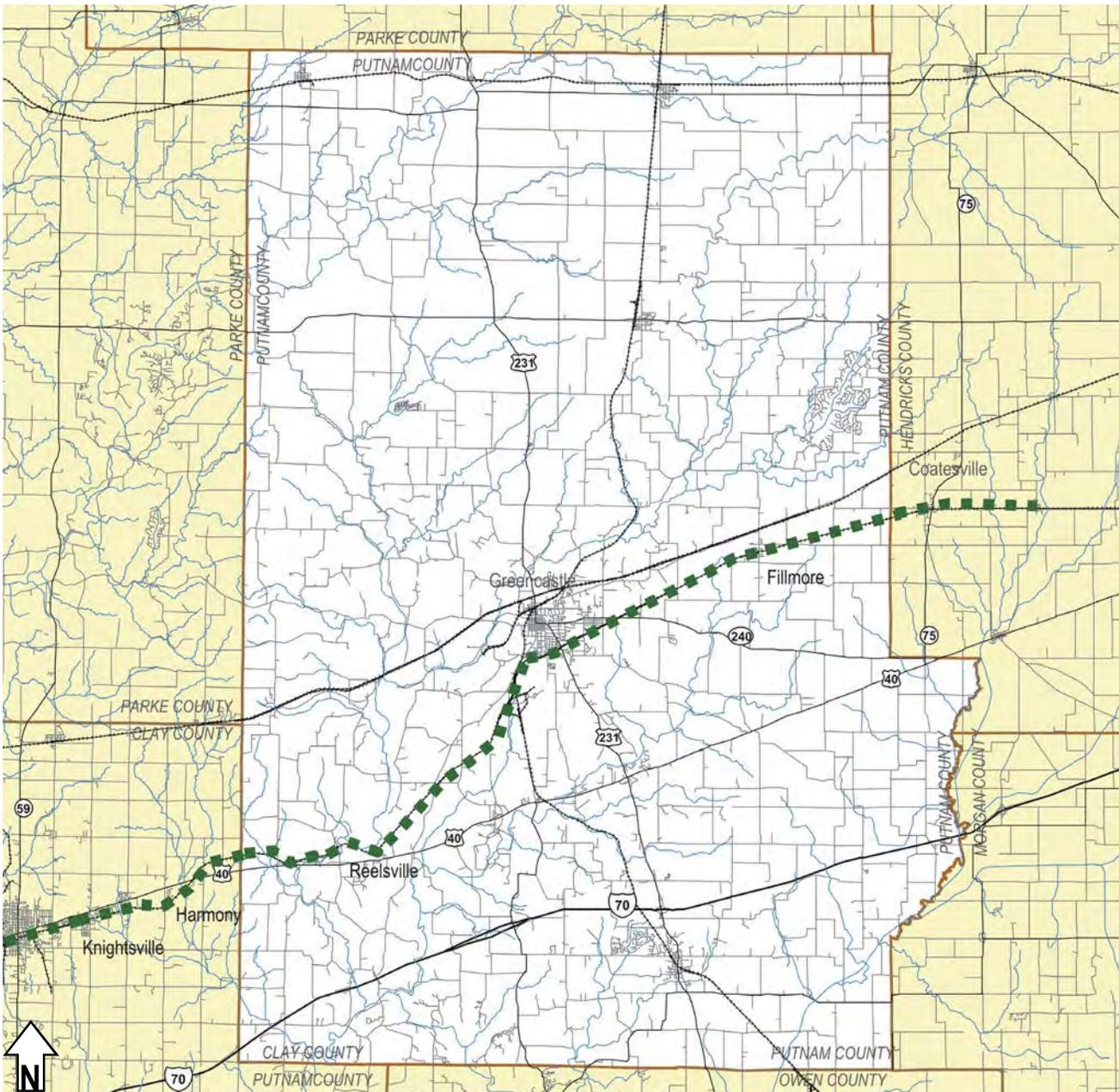
PUTNAM COUNTY LEGEND

■ ■ ■ ■ ■ ■ ■ ■ ■ ■ Potential NRHT Route

Recommendations

A series of events are needed beyond this Development Guide for the proposed implementation of the NRHT to become reality. Some possible steps include the following:

- Engage Putnam County communities adjacent to the NRHT proposed alignment to adopt the Development Guide.
- Start a public information campaign in Putnam County to inform the public about the NRHT.
- Work with local communities to incorporate the proposed trail alignment into local planning documents.



HENDRICKS COUNTY

Overview

The NRHT is proposed to link the Hendricks County communities of Coatesville, Amo, Clayton, Cartersburg and Plainfield. For the majority of its proposed alignment across Hendricks County, the NRHT will not be in relatively close proximity to U.S. 40/National Road. That condition changes however, within the City of Plainfield where the trail is proposed to head east to the Hendricks/Marion County line. The trail is proposed to primarily be a bicycle/pedestrian trail, but may also include an adjacent equestrian trail in the western part of the county.

Trail planning and implementation has already begun in portions of Hendricks County. Some portions of the Vandalia Trail in the western part of the county and of the Vandalia Rail-Trail in Plainfield have already been created and are currently being used. The eastern portion of the Vandalia Rail-Trail may extend into Marion County and form part of the Indy Greenways Trail network.

Conditions

Within Hendricks County, the NRHT alignment is proposed to primarily pass across rural/agricultural land use. However, the trail is also proposed to travel past development found in the towns of Coatesville, Amo, Clayton and the City of Plainfield.

Trail users may have the opportunity for self-directed recreation in rural areas of Hendricks County and more opportunities for access to schools, shopping, businesses and other institutions in the communities where the trail alignment is proposed to be located.

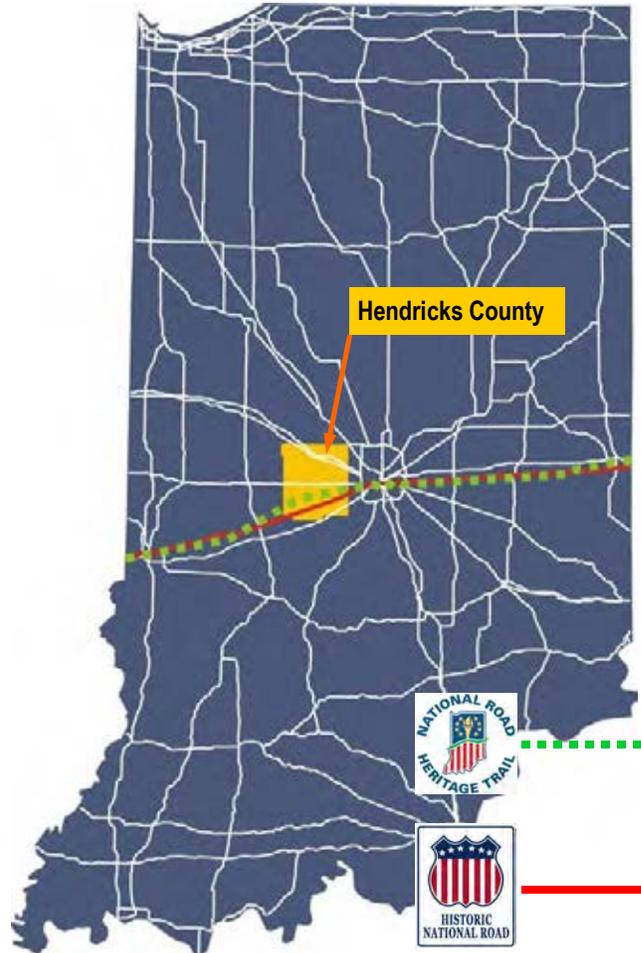
Alignment

The NRHT alignment is proposed to follow the former Pennsylvania/Vandalia Railroad corridor across Hendricks County. Some portions of the Vandalia Trail have already been constructed and are currently being used. The eastern portion of the Vandalia Trail may extend into Marion County and potentially connect with the Indy Greenways trail network.

Endorsements and Support

The NRHT has received endorsements from the following Hendricks County organizations and stakeholders

- Hendricks County Board of County Commissioners
- Hendricks County trail Development Association
- Hendricks County Heritage Alliance
- B&O Trail Association
- Coatesville Town Council
- Amo-Coatesville Sewer Conservancy District
- Amo Town Council
- Clayton Town Council
- Plainfield Town Council



Hendricks County shown in state context map

The NRHT in Hendricks County	
19	Miles of trail
19	At grade road crossings
0	At grade railroad crossings
5	Existing railroad bridges
3	Railroad bridges that have been removed
1	Trail crossing of U. S. 40/ National Road
8	Locations of competing use
Source: Storrow Kinsella Associates Inc.	

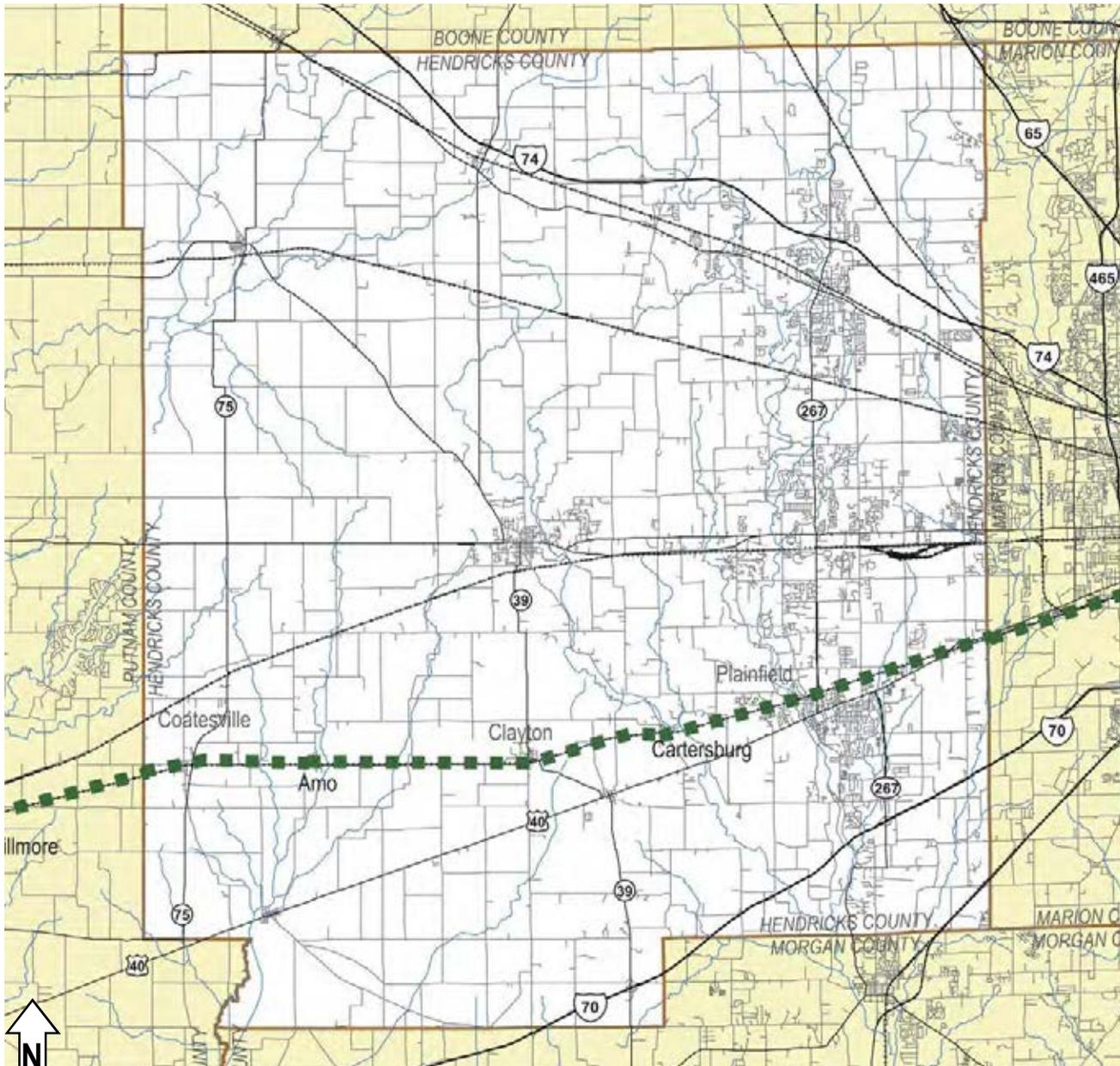
HENDRICKS COUNTY LEGEND

■ ■ ■ ■ ■ ■ ■ ■ ■ ■ Potential NRHT Route

Recommendations

The proposed implementation of the NRHT in Hendrick's County will require activities to take place after the adoption of the Development Guide. Active community involvement and decisions about how to design, construct and fund the NRHT will be critical. Some of the possible steps that may be taken include but are not limited to the following:

- Engage Hendricks County communities adjacent to the NRHT proposed alignment to adopt the master plan.
- Start a public information campaign in Hendricks County to inform the public about the NRHT.
- Work with local communities to incorporate the proposed trail alignment into local planning documents.



MARION COUNTY

Overview

The NRHT is proposed to cross Marion County and expand trail opportunities for residents of Indianapolis and the Town of Cumberland. The portions of Marion County in which the NRHT alignment is proposed to run contains various levels of development. The NRHT is proposed to make a connection with the existing Indy Greenways network and utilize several of its trails for its Marion County alignment. This will provide opportunities for trail users to view the Indianapolis skyline, experience different neighborhoods and access various areas of interest across the county. Conversely, the Indy Greenway trail network is proposed to link with a cross-state trail – the NRHT.

The proposed location of the trail and its proximity to a variety of existing development means that Marion County residents and visitors will not only have easy access to the NRHT, they also will have more opportunities for access to schools, shopping, businesses and government centers as well.

Conditions

In Marion County, the NRHT is proposed to have an alignment that makes it unique and different from the other Indiana counties in which it crosses. Marion County is the home of the state capital, it is the largest city in Indiana, it has an existing and extensive county-wide greenway/trail network and land around the proposed trail alignment is developed.

While Marion County contains a great deal of development, NRHT users will nonetheless be able to view and have access to the county’s natural resource corridors of White Lick Creek, White River, Eagle Creek and Pleasant Run.

Alignment

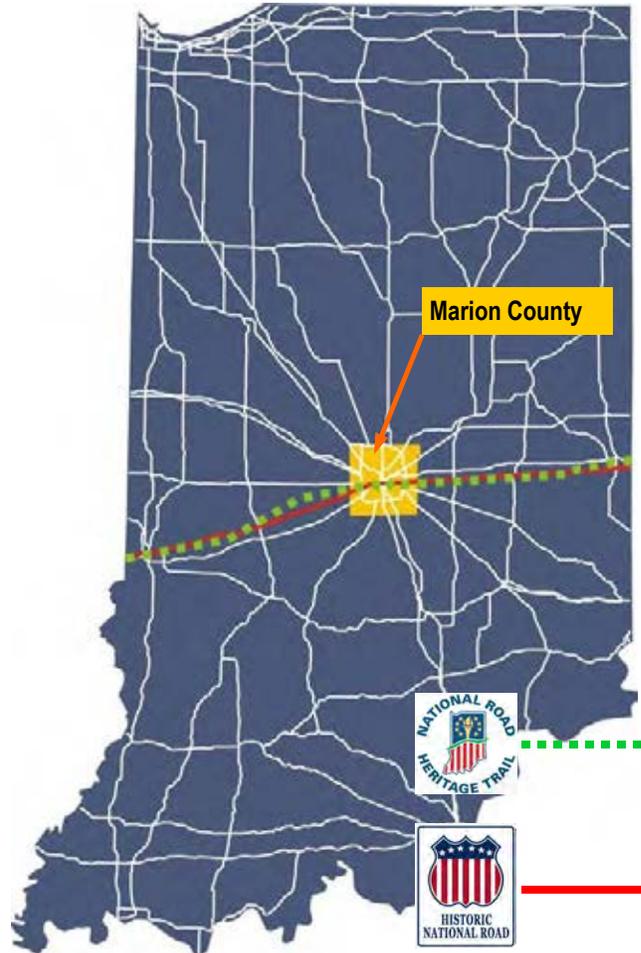
The NRHT is proposed to use the former Pennsylvania Railroad corridor on both the west and east sides of Marion County. However the majority of the proposed Marion County alignment will use the Indy Greenways trail network. The NRHT is proposed to either utilize portions of or intersect with the following Indy Greenways trails:

- ◆ Proposed White Lick Creek Trail
- ◆ Proposed and Existing Eagle Creek Trail
- ◆ Planned White River Trail
- ◆ Pleasant Run Trail
- ◆ Planned Pennsy Trail
- ◆ Planned Buck Creek Trail

Endorsements and Support

The NRHT has received endorsements from the following Marion County organizations and stakeholders:

- Greenways Foundation
- Efroymsen Fund - A CICF Fund



Marion County shown in state context map

The NRHT in Marion County	
22	Miles of trail
10	*At grade road crossings
1	*At grade railroad crossings
0	*Existing railroad bridges
1	*Railroad bridges that have been removed
2	*Trail crossing of U. S. 40/ National Road
3	*Locations of competing use
Source: Storrow Kinsella Associates Inc	

Note: * The statistics do not include the Indy Greenways network.

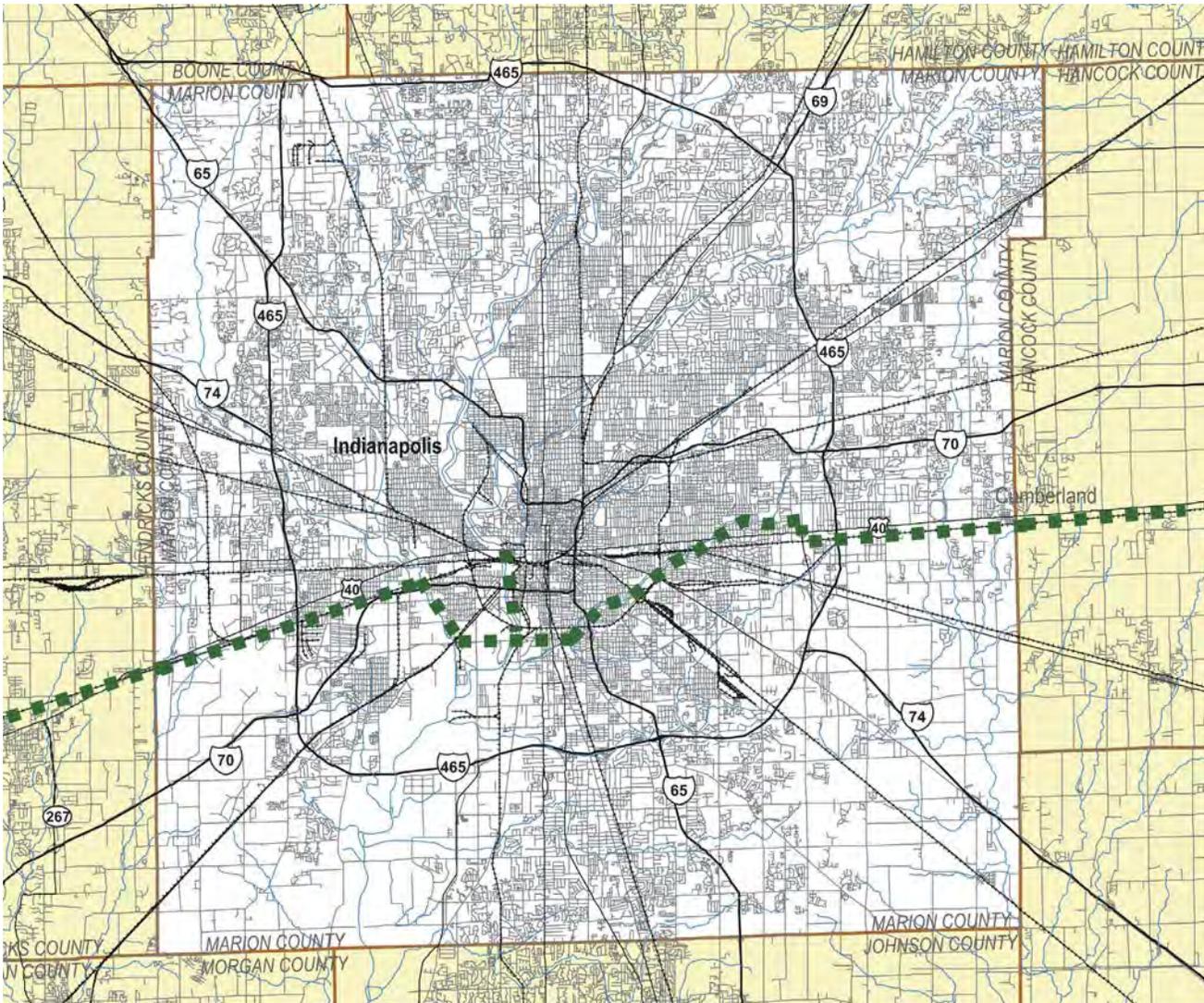
MARION COUNTY LEGEND

■ ■ ■ ■ ■ ■ ■ ■ ■ ■ Potential NRHT Route

- Central Indiana Bicycling Association (CIBA) Foundation
- Indianapolis Metropolitan Planning Organization
- Indianapolis Greenways Development Committee
- 40 West Professional & Business Club (Wayne Township)
- Irvington Community Council
- Cumberland Town Council
- Central Indiana Community Foundation
- Indianapolis Foundation

Recommendations

- Engage Marion County, its communities and neighborhoods that are adjacent to the NRHT proposed alignment to adopt the Development Guide.
- Start a public information campaign in Marion County to inform the public about the NRHT.
- Work with the City of Indianapolis to incorporate the proposed trail alignment into local planning documents.



HANCOCK COUNTY

Overview

The NRHT is proposed to cross Hancock County, in relatively close proximity to the U.S. 40/National Road corridor. The trail will primarily be a bicycle/pedestrian trail, but will on occasion include an adjacent equestrian trail.

For rural areas along the proposed trail alignment, residents and visitors may find the NRHT is ideal for self-directed recreation. While in small communities, the trail may help to serve the public by providing additional opportunities to have access to schools, businesses, institutions and other sites of interest.

The NRHT is proposed to link the Hancock County communities of Cumberland, Spring Lake, Philadelphia, Greenfield and Charlottesville.

There may be opportunities for the NRHT to connect with future trails and bike routes as they develop across Hancock County. Efforts underway in the Town of Cumberland may also provide for the NRHT to link with trails in the Indy Greenway network.

Conditions

Within Hancock County, the proposed trail primarily passes alongside rural/agricultural land use, but also travels through the City of Greenfield, which is the county seat. In some areas, the former railroad corridor is slightly elevated above the adjacent land. However, since the railroad corridor was constructed primarily without bridges over streets below, the implementation of the trail will involve a number of at grade road crossings across the county.

In rural areas, trail users may have views of farm fields, houses, barns and silos. As the proposed trail alignment takes the NRHT across Hancock County, trail users will also be able to experience the small towns that developed along the National Road.

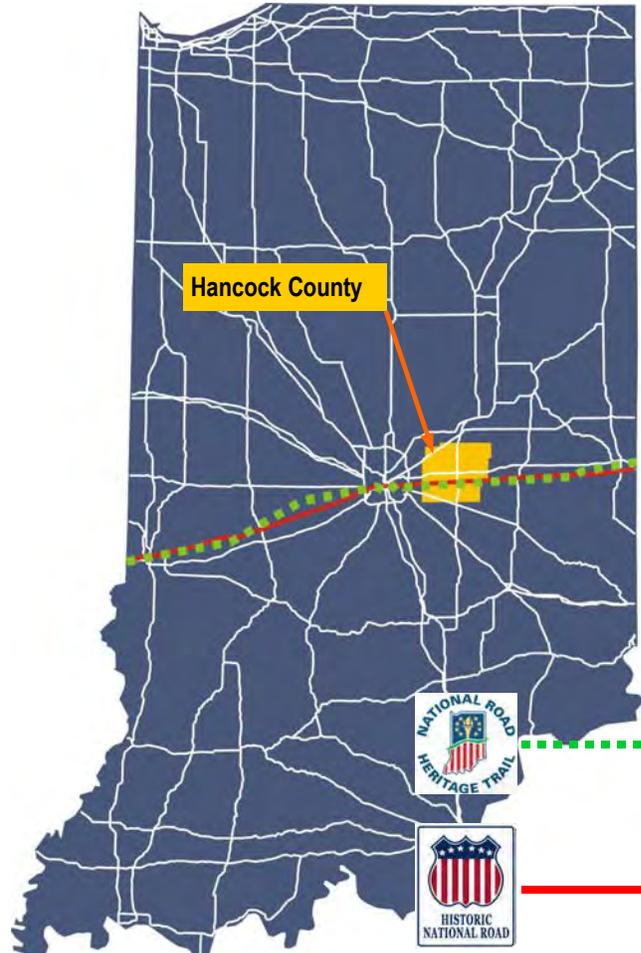
Alignment

The NRHT is proposed to begin at the Marion/Hancock County border and utilize the former Pennsylvania Railroad corridor all the way to the Hancock/Henry County border. During its run, the NRHT is proposed to pass through Greenfield – the Hancock County seat. Within Greenfield, the NRHT is proposed to use the alignment of the existing Greenfield Pennsy Trail.

Endorsements and Support

The proposed NRHT has received endorsements from the following Hancock County organizations and stakeholders:

- Hancock County Board of Commissioners (with the provision that State Government develops & maintains the



Hancock County shown in state context map

The NRHT in Hancock County	
19	Miles of trail
19	At grade road crossings
0	At grade railroad crossings
6	Existing railroad bridges
0	Railroad bridges that have been removed
0	Trail crossing of U. S. 40/ National Road
10	Locations of competing use
Source: Storrow Kinsella Associates Inc	

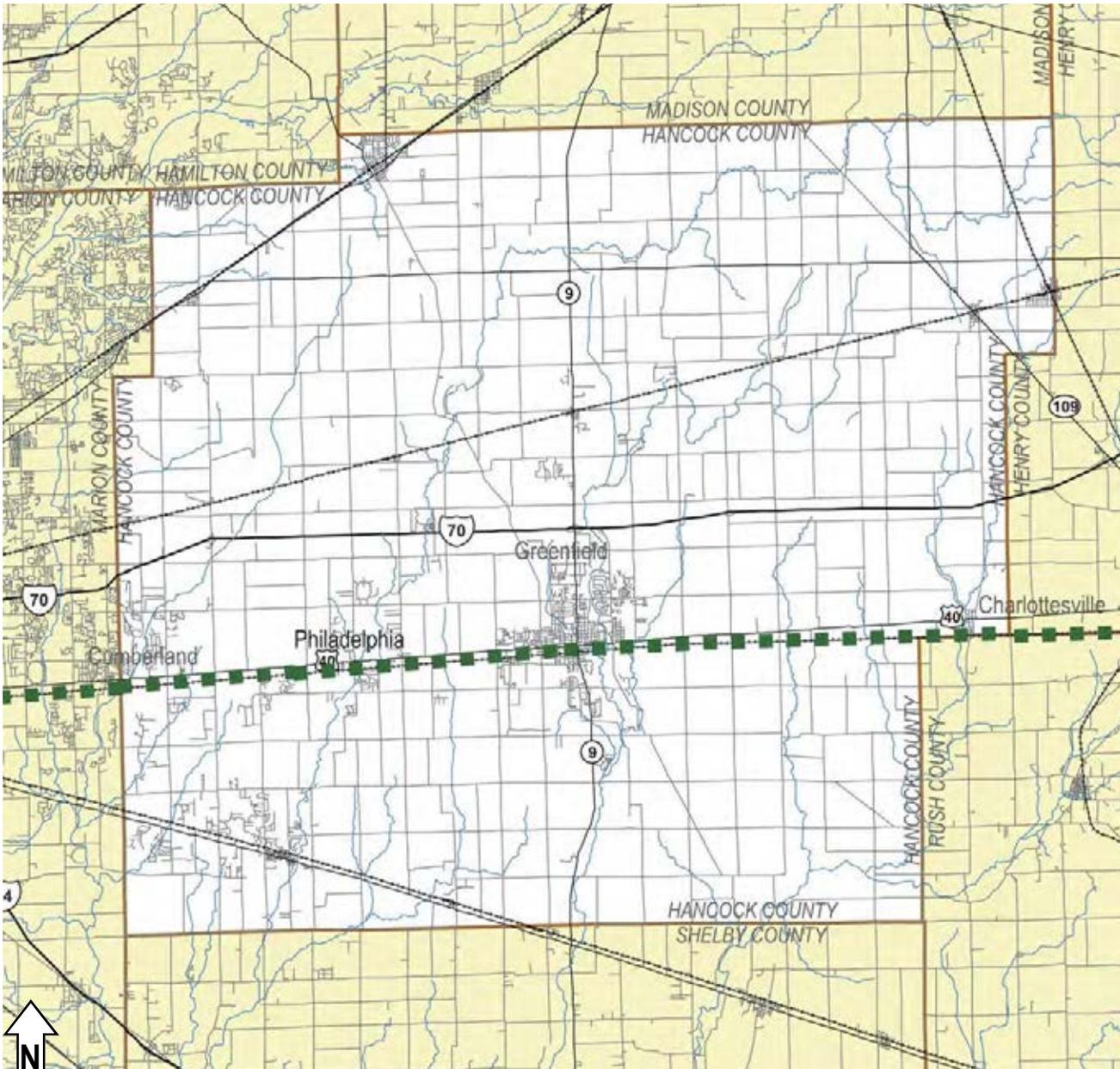
HANCOCK COUNTY LEGEND

■ ■ ■ ■ ■ ■ ■ ■ ■ ■ Potential NRHT Route

- NRHT)
 - Cumberland Town Council (also in Marion County)
 - Greenfield Parks & Recreation
 - State Senator Gard

Recommendations

- Engage communities that are adjacent to the proposed NRHT in Hancock County to adopt the master plan.
- Start a public information campaign in Hancock County to inform the public about the proposed NRHT.
- Work with local communities to incorporate the proposed trail alignment into local planning documents.



HENRY COUNTY

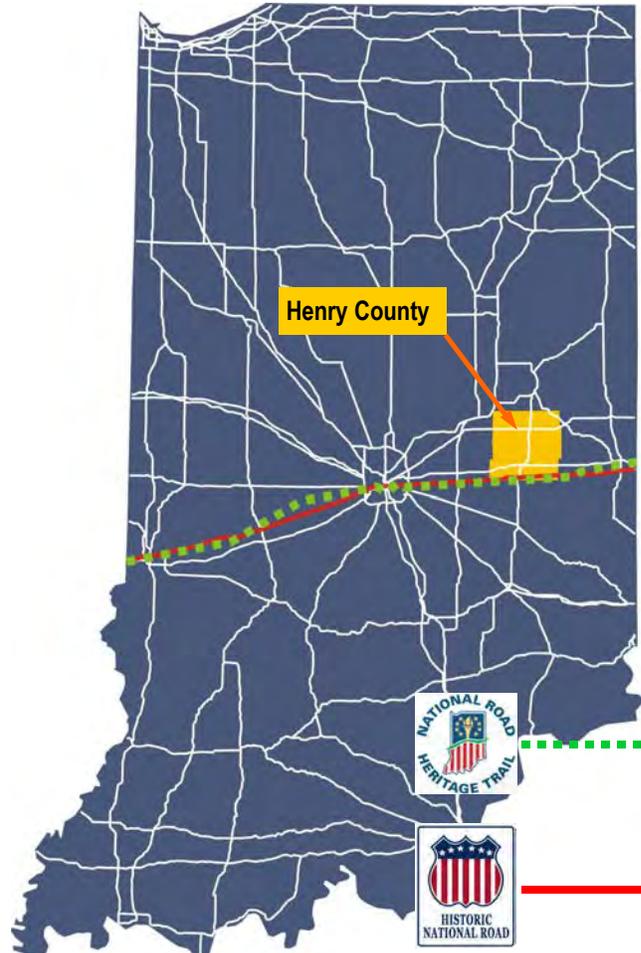
Overview

The NRHT is proposed to cross southern Henry County by utilizing the former Pennsylvania Railroad corridor. Henry County communities that are proposed to be linked by the NRHT include: Knightstown, Raysville, Ogden Dunreith, Lewisville and Straughn.

The trail alignment is proposed to always remain to the south of the U.S. 40/National Road. The proximity of the two corridors means each are often within sight of the other. This is especially true for the area between Ogden and Dunreith, where the proposed alignment of the NRHT brings the trail within a few hundred feet of the National Road.

A bicycle/pedestrian trail is proposed for the entire length of the Henry County alignment, while an equestrian trail is proposed for a portion of the county. The rural stretches of the NRHT proposed alignment will provide Henry County residents with the opportunity for self-directed recreation. As the trail passes through various communities, it may be able to provide the public with more opportunities for accessing schools, businesses, retail and sites of interest.

In rural areas, trail users will often have views across agricultural fields to rural farm houses, barns and silos. In areas around the various trail communities, trail users will be able to experience the small towns that developed along the National Road and view their historic buildings. The proposed trail alignment on the elevated corridor segments may provide trail users with interesting views over the adjacent landscape.



Henry County shown in state context map

Conditions

The majority of the land the NRHT is proposed to pass through on its trek across Henry County is rural and flat. However, the trail alignment is also proposed to encounter several small towns. A significant portion of the proposed trail alignment is elevated as it moves through the communities of Knightstown, Raysville and Lewisville. A number of the railroad bridges remain, which may allow trail users to cross over the streets in these communities. The NRHT is proposed to cross several stream and river corridors including: Goose Creek, Big Blue River, Buck Creek and the Flatrock River.

Alignment

The NRHT proposed alignment is along the former Pennsylvania Railroad for its entire trek across Henry County.

Endorsements and Support

The NRHT has received endorsements from the following Henry County organizations and stakeholders:

- New Castle/Henry County Chamber of Commerce
- New Castle/Henry County Economic Development

The NRHT in Henry County	
20	Miles of trail
17	At grade road crossings
0	At grade railroad crossings
18	Existing railroad bridges
2	Railroad bridges that have been removed
0	Trail crossing of U. S. 40/ National Road
10	Locations of competing use
Source: Storrow Kinsella Associates Inc	

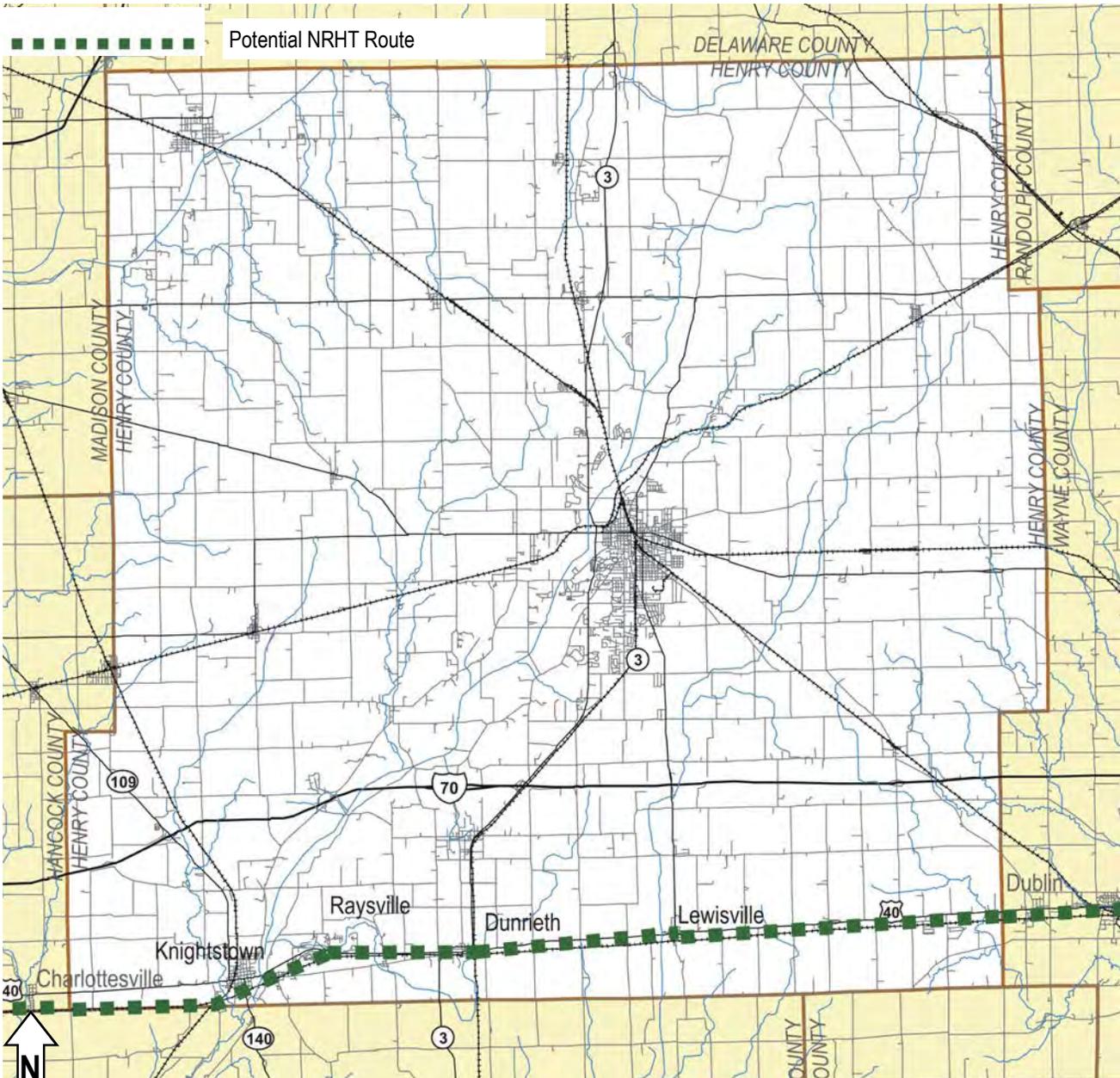
- Corporation
- Henry County Board of County Commissioners
- Henry County Convention & Visitors Bureau
- Straughn Town Board
- Lewisville Town Council
- South Henry Regional Waste District
- Dunreith Town Council
- Make a Difference Knightstown, Inc
- Knightstown Town Council

Recommendations

The proposed development and implementation of the NRHT in Henry County will require a series of steps and activities that go beyond the adoption of the Development Guide. The following are possible activities that may promote the implementation of the trail.

- Engage Henry County communities adjacent to the NRHT proposed alignment to adopt the Development Guide.
- Start a public information campaign in Henry County to inform the public about the NRHT.
- Work with local communities to incorporate the proposed trail alignment into local planning documents.

HENRY COUNTY LEGEND



WAYNE COUNTY

Overview

The NRHT is proposed to link the Wayne County communities of Dublin, Mt. Auburn, Cambridge City, Centerville and Richmond. For a substantial portion of its alignment across the county, the NRHT is proposed to be in proximity with the National Road. There is even one site in west central Wayne County where the trail is proposed to make an at-grade crossing of the National Road.

When the proposed alignment of the NRHT is not running through a small community, the trail is proposed to travel across agricultural open space.

Residents and visitors to Wayne County may be able to use the trail in rural areas for self-directed recreation, while the trail may provide additional opportunities for accessing schools, businesses, retail and various institutions in the developed areas of the county. In the City of Richmond, trail users may be able to view the city skyline and have access to Richmond’s many historic districts as well as have access to other sites of interest .

As Indiana’s eastern terminus of the NRHT, Wayne County may offer an opportunity for the trail to link with other trails in neighboring and adjacent Ohio.

Conditions

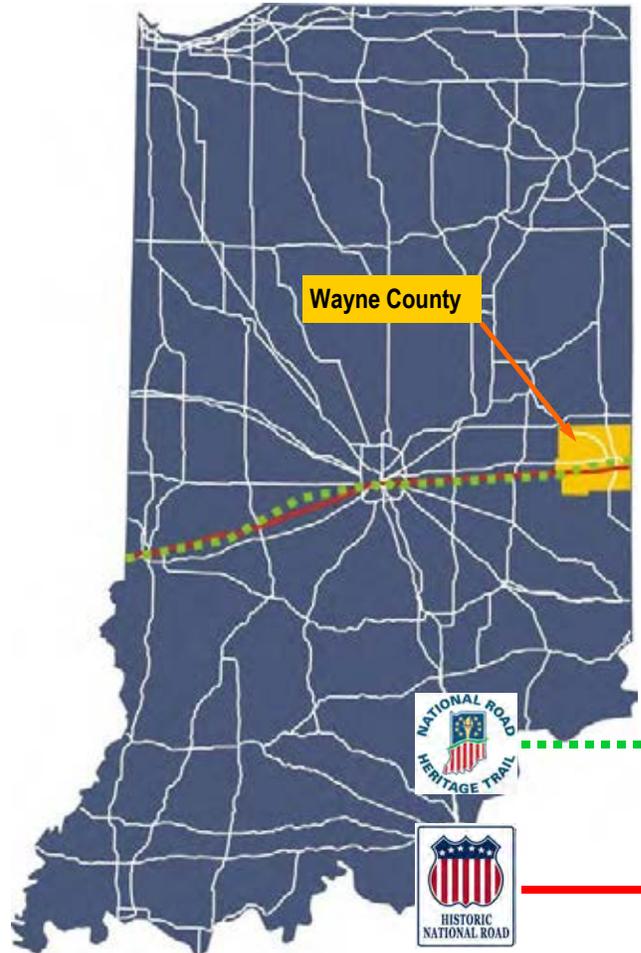
The NRHT proposed alignment is expected to take trail users through a variety of conditions in Wayne County. While most of the terrain adjacent to the proposed alignment is relatively flat, on occasion the trail is proposed to use the elevated corridor of the former Pennsylvania railroad.

A number of Wayne County stream crossings and an elevated corridor provide that the NRHT proposed alignment utilizes a number of former railroad bridges. Some of the former bridges have been removed – and in the case of bridges in Cambridge City, removed in a dramatic fashion.

Within the City of Richmond, the NRHT is proposed to go through neighborhoods as well as the downtown area. On the east side of the City, the trail is proposed to travel to the state line by heading to east.

Alignment

In Wayne County, the NRHT is proposed to utilize the former Pennsylvania Railroad corridor for its alignment from the Henry/ Wayne county line, east to a location, near the Wayne County Fairgrounds. Within Richmond, the trail is proposed be located within road right of ways and eventually reach the state line.



Wayne County shown in state context map

The NRHT in Wayne County	
21	Miles of trail
28	At grade road crossings
2	At grade railroad crossings
10	Existing railroad bridges
6	Railroad bridges that have been removed
1	Trail crossing of U. S. 40/ National Road
5	Locations of competing use
Source: Storrow Kinsella Associates Inc	

WAYNE COUNTY LEGEND

■ ■ ■ ■ ■ ■ ■ ■ ■ ■ Potential NRHT Route

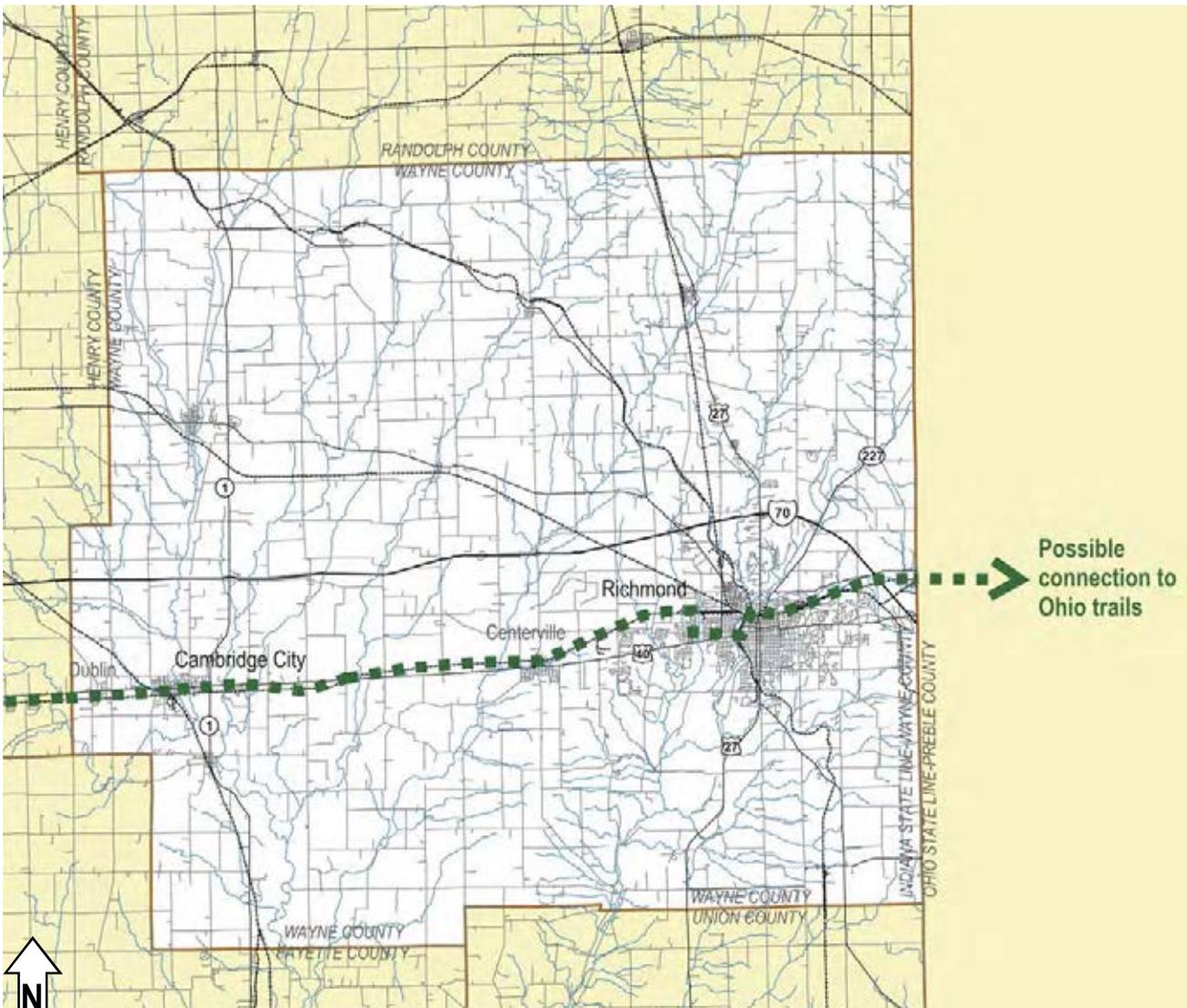
Endorsements and Support

The NRHT has received endorsements from the following organizations and stakeholders located in Wayne County:

- Dublin Town Council
- Cambridge City Town Council
- Centerville Town Council
- City of Richmond Parks and Recreation

Recommendations

- Engage Wayne County communities adjacent to the NRHT proposed alignment to adopt the Development Guide.
- Start a public information campaign in Wayne County to inform the public about the NRHT.
- Work with local communities to incorporate the proposed trail alignment into local planning documents.



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RECOMMENDATIONS

The following recommendations are offered to help communities move forward with the planning, design and implementation of the NRHT. This is not meant to be an all-inclusive listing of the next series of steps that should be taken to make the NRHT a reality. In other sections of this guide are tools, which communities can utilize to move specific projects forward. (Note: specific information on these topics can be found in Section C Tools)

However, the recommendations below do provide action steps that will benefit trail communities in their effort to develop segments of the NRHT. Community recommendations include:

Recommendation — Communities and agencies should adopt the NRHT Development Guide document

- The Development Guide presents an overview of the NRHT along with general information showing that the vision for a developed cross-state trail is achievable. An important message of the Development Guide is that when the NRHT is implemented, it will offer the public many great benefits.
- The document is intended to be user friendly so that it may be a springboard for communities to make the NRHT a reality.
- The Development Guide promotes the development of other community trails and bikeways. The NRHT document is a useful tool instrumental in helping communities establish a vision for the creation of a linked trail and bikeway network.

Recommendation — NRHT communities should undertake trail demonstration projects

- Attempting to construct a multi-use trail can be a challenge for any community. It is important that the community: 1) first identify their collective vision, then 2) prioritize their goals, and 3) assess constraints and opportunities for both constructing and maintaining a trail corridor. One approach that has previously achieved success in a number of trail communities is to start by taking on a manageable trail project – one that has a scope and size consistent with the communities' available budget and resources needed to plan, construct and maintain the trail over time.
- A community can generate trail support and keep the public's attention focused by making the opening of a trail segment a public event. A media event can be created by performing a ribbon cutting at the trail opening, and conducting a public celebration.

- A demonstration project, conducted as soon as the community is ready to undertake a trail project, will help keep public interest high as well as sustain momentum for the cross-state NRHT.
- When a community conducts a demonstration project, it shows the public that government support has made a built trail possible. The demonstration also provides an opportunity to showcase the benefits a trail can provide to a community and its residents.
- Performing a demonstration project can help promote the trail's success and pave the way for future trail development.

Recommendation — NRHT communities may want to take a phased approach to trail implementation

- Communities have to determine the extent of the trail project they can successfully undertake and the amount of change they can absorb. Tasks such as preparing a Transportation Enhancement Grant application, securing property, obtaining funding and local support, undertaking construction and performing on-going trail maintenance can overly tax a community's resources and burden their ability to successfully build and maintain a trail. Performing these tasks in a methodical manner over a predetermined amount of time so that issues can be addressed and appropriately resolved may allow a community to be more successful with their trail project.

Recommendation — Develop a volunteer program for the purpose of helping trail users

- Efforts to establish and sustain a core group of volunteers that observe and monitor the trail on a regular basis will help promote the NRHT as a family-friendly and healthy environment. Volunteers can be goodwill ambassadors for a community by providing trail users with information on local attractions and history, assisting trail users with directions, offering help to those needing assistance, alerting emergency responders to situations and reporting suspicious activities to local law enforcement.
- Establishing a volunteer program can help engage the community by encouraging the public to use the trail. This may also lead to an increase in public participation that would add even more volunteers to grow the program to assist with trail maintenance and clean-up needs.

Recommendation — Personalize the NRHT for your community

- Communities can help positively reinforce public

perception of the NRHT by incorporating their unique identity and character into the trail corridor. One idea may be to display a community name/image/logo on a sign that symbolizes the character or history of the community. This approach should be integrated with the family of NRHT elements (see previous section in the Design Guidelines on Identity) and be compatible with the NRHT logo/image and Identity Program.

- Because the NRHT is proposed to connect 30 communities across Indiana, an opportunity exists for various communities to highlight the threshold or trail entrance into their community. At these locations, it is possible to incorporate landscape improvements that alerts trail users of the community's boundary as well as enhance the public image of that community.
- Incorporate landscape improvements at trailheads to: make them inviting, give them a special identity and signify the community where the trailhead is located.

Recommendation — Adjacent trail communities should look for opportunities to collaborate

- For adjacent communities that may be looking to develop segments of the NRHT, it may be beneficial to team together to address issues that may be relevant to both communities. This may include preparation of applications for Transportation Enhancement funding, performing environmental review/compliance, conducting construction activities, identifying maintenance roles and responsibilities, etc.
- A collaborative trail effort between communities demonstrates the importance of the trail to funding agencies, which may help increase the chance of those communities receiving trail funding.
- The NRHT can also offer space to host events co-sponsored by adjacent communities. As an example: fairs, celebrations and festivals could take place on the NRHT corridor as a result of collaboration between communities.
- Partnerships should be developed between user groups such as equestrian, cycling and hiking groups, and endorsed by NRHT communities.

Recommendation — The time to act is now

- Communities should capitalize upon the momentum the NRHT Development Guide is expected to generate among various state agencies, soon after its release and

adoption. The interest of state agencies may help facilitate greater chances for local communities to obtain NRHT funding from the state.

- Communities can take positive steps to make the cross-state NRHT a reality after the release of the Development Guide. These steps will have long lasting benefits, including helping to lay the groundwork for future segments of the NRHT and extensions into neighboring states.
- As communities develop their initial trail project, it is important for that community to document and record lessons learned in the process. Having a record of the experience will provide a better understanding of how to get a trail in place, which will help that community in its efforts to develop future trail projects.
- Plan for the long-range trail implementation that will allow the entire 150-miles of the cross-state NRHT to be complete and in place by 2016, so it may coincide with Indiana's bicentennial celebration.

Recommendation — Use the NRHT as an effective planning tool

- The NRHT is an important organizing element for land use and development issues. The trail may help protect open space that is adjacent to the corridor as well as preserve natural and cultural resources in proximity to the trail.

Recommendation — Build support for the NRHT at the local, county, regional and state level.

- Contact representatives, elected officials and organizations to let them know of local community efforts to implement the NRHT – especially if their endorsement and support may help the project's success.

Recommendation — Communities should be persistent in their efforts to develop NRHT segments.

- Trail development can be a challenge for a community, especially when issues arise related to land acquisition, environmental review/compliance, funding, construction and maintenance, etc. The important approach is for communities to be consistent and persistent in their efforts as challenges begin to emerge that may impact the development of the trail.

Recommendation — Involve the public throughout the trail planning and design process

- Create a dialogue with the public about the trail including community need, anticipated costs, health benefits,

construction schedules, maintenance, etc.

- Public dialogue will build consensus and a wide base of support for the NRHT.

Recommendation — Bring new partners to the process

- Invite the private sector to participate as trail partners with the community, as businesses will benefit if their employees use the trail for transportation and recreation/health purposes.
- Related businesses such as bike shops, bike and skate rental, food vendors, health stores, tack shops, feed stores, etc. may see opportunities to locate along the trail, which should be encouraged.
- Obtain NRHT endorsements from organizations and non-profit groups.

Recommendation — Partner with the Chamber of Commerce

- Communities should encourage their local Chamber to recognize the NRHT and incorporate its benefits into promotional literature to encourage tourism and promote quality of life.
- Promotional materials may highlight the trail as an economic generator and tool for attracting and keeping business.

Recommendation — Encourage public events to take place on the NRHT corridor

- The NRHT may provide a platform as well as public space for outdoor events such as races, fund-raisers, charitable events, health fairs/expo's, etc.

Recommendation — Collaborate with the neighboring states of Illinois and Ohio to make connections from the Indiana NRHT to their trail systems.

- Discuss potential opportunities with representatives from adjacent states to create a large and connected trail network, going beyond individual communities, but with adjacent states.
- Urge the INDOT greenway and bicycle coordinator to lead this effort in partnership with the NRHT.
- Publicly promote the multi-state trail network

Recommendation — Conduct on-going public relations

- Conduct periodic surveys with trail users to assess their views and opinions about the NRHT.
- Establish a baseline for determination of trail impacts by conducting trail user surveys to determine their demographic profile, and reasons for using the trail.



NRHT DEVELOPMENT GUIDE CONCLUSIONS

The following are general statements about the NRHT. Criteria and background documentation that support the statements can be found in the Development Guide.

- ***The NRHT is proposed to become Indiana's first cross-state trail***

The distinction of being the state's first such trail is expected to generate interest for the continuing development and use of the NRHT.

- ***The NRHT will benefit Indiana's residents and visitors***

Indiana's efforts for economic development can be assisted with the development of the NRHT.

The Indiana Office of Tourism sees the NRHT as an important tool to help promote tourism for the state.

The NRHT will provide transportation alternatives for the public beyond the use of motorized vehicles.

The public will be provided with additional opportunities for self-directed recreation with the development of the NRHT.

- ***The NRHT will offer Hoosiers and visitors to Indiana with more opportunities to see and experience the state***

Trail users will have transportation alternatives for accessing areas by walking, biking and horseback riding.

The trail will provide the public with transportation alternatives for accessing Historic National Road communities.

The trail will provide opportunities to see agricultural areas, cities, businesses and industries that are important to Indiana's economy.

Trail users will be able to view some of Indiana's natural resources including scenic rivers and streams, wooded areas and wildlife.

- ***The NRHT can be an important economic tool***

The trail can be an amenity that helps communities in their efforts to attract new business and residents.

Businesses can profit by having a healthy workforce that will use the NRHT for recreation, exercise, and possible commuting.

Other communities have experienced increased land values along their trail corridors.

There are examples of communities witnessing an increased interest for development along their trails.

It may be possible for these conditions to also be experienced in NRHT communities.

- ***The NRHT is proposed to cross many political jurisdictions, so cooperation among communities and agencies is critical for the trail's success***

Not only is cooperation important for the trail's design and implementation, but also it's maintenance, connections to other trails and promotion of the NRHT as a community asset.

There should be partnerships between equestrian, bicycling and hiking communities to develop, promote and maintain the trail.

- ***The NRHT will help promote public attention of the Historic National Road in Indiana***

The NRHT corridor may contain signs to inform the public about the history of the Historic National Road and the impact it had on the development of Indiana and communities located along the route.

- ***The NRHT can help Hoosiers learn about the history of the railroads and the impact they had on Indiana's growth***

The NRHT is proposed to utilize former railroad corridors for most of its cross-state journey. That chapter in Indiana history can be shared with the trail user.

- ***The NRHT can help to build a more extensive network of trails in Indiana by connecting with existing and future trails***

The NRHT is proposed to connect with trails in the City of Terre Haute's system, Greencastle/Putnam County's People Pathways system, Plainfield's trail network, Indy Greenways and Richmond's Cardinal Greenway.

- ***The NRHT may link with trails in neighboring states***

The extension of the NRHT west into Illinois is currently being discussed.

If a short connection can be made between Indiana's eastern

terminus of the NRHT and the trail system in Ohio, it will extend the reach of the NRHT, and the user will be able to access a wide network of existing trails.

- ***The challenge for fully implementing the NRHT will be great. Growth and development for the cross-state trail will require attention in addressing issues such as:***

- Community support
- Property acquisition
- Environmental compliance
- Obtaining funding
- Maintaining the trail

- ***Interest in a cross-state trail is gaining momentum in Indiana.***

The development of the NRHT can bring positive attention to Indiana.

The NRHT will help encourage visitors to come to the Hoosier State.

The NRHT will be another important feature in a long-line of positive amenities the state has to offer.

The NRHT will help promote Indiana as a state committed to the health, well-being and quality of life for its residents.

- ***This is an important time for trails in Indiana***

Neighboring states Ohio, Illinois and Michigan have had success with their rails-to-trails efforts and the development of cross-state trails. Indiana can also realize the same benefits these states have had with increased tourism, additional recreation opportunities, connecting with other trails and communities and transportation alternatives.

Opportunities for rail-to-trail development in Indiana may be challenging if former railroad corridors continue to become fragmented and have their property sold, built upon, or developed.

The NRHT vision is capturing the attention of state and local governments and important state and local organizations. For many Indiana residents who are currently trail users, interest in the NRHT is growing.

It may be years before another cross-state trail can realistically be developed. The State of Indiana has been taking action to have more involvement in the development of trails. The time for action is now.

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