HANCOCK COUNTY TRAILS PLAN



FINAL REPORT

November 5, 2018

















PREPARED BY:
BUTLER, FAIRMAN & SEUFERT, INC.
& HEALTH BY DESIGN



HANCOCK COUNTY TRAILS PLAN

LETTER OF INTRODUCTION

Butler Fairman & Seufert, Inc. (BF&S) and Health By Design (HbD) are pleased to present the Hancock County Trails Master Plan to the citizens and administrators of Hancock County, Indiana, and the municipalities of Cumberland, Fortville, Greenfield, McCordsville, New Palestine, Shirley, and Wilkinson. This report is the product of a collaborative effort by the Executive Committee, BF&S design professionals, HbD design professionals, the Steering Committee, local merchants and members of the Hancock County community. It is intended to serve as a guide for future alternative transportation and recreational development within Hancock County.

Each bicycle facility route, pedestrian improvement, program recommendation, and policy recommendation was thoroughly researched. Decisions were based on a process that consisted of a county-wide inventory and analysis process, design synthesis, public input, and development of design standards before ultimately reaching the master plan stage. The resulting recommendations are the best solutions to initiating a county-wide bicycle and pedestrian network. The plan is intended to be a "living document" and will serve as a long lasting foundation for future alternative transportation development

BF&S and HbD are very appreciative to have been able to assist Hancock County in this planning effort and we look forward to the implementation of these recommendations.

Respectfully submitted on the 28th day of August, 2018,

Butler, Fairman, & Seufert, Inc.

Alan L. Hamersly, P.E.

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Health By Design

Kim Irwin, MPH



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BACKGROUND

The City of Greenfield, Town of Cumberland, Town of New Palestine, Town of McCordsville, Town of Fortville, Town of Shirley, and Town of Wilkinson, in conjunction with Hancock County, decided to undertake the process of amending the Trails Plan located in the as amended 2005 Hancock County Comprehensive Plan in an effort to better connect their communities. This planning effort is the result of a series of community conversations on "Placemaking" held over the course of 3 years by the Hancock County Community Foundation. Each community listed above was actively involved in these brainstorming sessions and realized that there was a need to create a more comprehensive bike and pedestrian connection plan for the entire county.

To further emphasize the need for a plan, on July 20, 2016, Health by Design, an active living and healthy communities consultant, and the Indiana State Department of Health partnered with the City of Greenfield and Hancock Regional Hospital to present a day-long Active Living Workshop attended by more than 20 community leaders, staff and residents. One of the top active living priorities identified by the workshop was to create a more comprehensive pedestrian and bicycle master plan. It also focused on key policy changes that could be made to promote active living in the community.

In January of 2017 a \$25,000 grant opportunity was announced by the Hancock County Community Foundation. Rather than compete for the grant, the communities chose to collaborate and apply together. Hancock Health came on board as the fiscal sponsor of the grant to further their goal of wanting to foster the healthiest county possible and then the County Planning Commission was asked to be the lead applicant. The grant was approved and awarded in June 2017 and a steering committee was formed to identify a consultant and secure additional funding.

This amendment of the plan will help improve non-motorized accessibility, promote safety for bicyclists and pedestrians, and make these communities a more enjoyable place to live and visit. The need for comprehensive alternative transportation has risen for several reasons. Personal economics, a movement to become a healthier society, increased safety for children (that cannot drive yet), adults that want the option of depending less on their car, and an increasing elderly population have all lead to this need.

For these reasons Hancock County and its communities are undertaking a plan to guide the development and design of bicycle and walking facilities within Hancock County.



NEED FOR THE PLAN

In the United States of America, 30% of the population currently does not drive a motor vehicle. This includes children, the elderly, those people that are physically unable to drive, those that are financially unable to afford the cost and maintenance of a vehicle, and an increasing population of those who chose to use alternative transportation for its economic, environmental, and health benefits. These three benefits coincidently are also the three main characteristics of a community that has a well developed walking and biking network and lead to a better quality of life for the citizens of that community.

Hancock Health has indicated a need to focus on making Hancock County the healthiest county possible. This is because there are some startling facts regarding the current status of health in Indiana and Hancock County. In the State of Indiana, 30% of adults fall into the obese category and 16% of teenagers are obese. Hancock County has the 6th highest rate of diabetes in Indiana and each person with diabetes spent an average of \$9600 on health costs in 2017. Women in Hancock County have a higher rate of heart disease than the national average and both men and women in Hancock County have a higher rate of strokes than the national average. This alarming fact is partly attributed to increasingly sedentary lifestyles. In 1969 the percentage of school children walking to school was 48% and today that number is down to 13%. Adults have to keep up with the demands of their jobs and daily responsibilities and many times do not have time for physical activity.

The good news is that by providing more choices and convenient opportunities for walking and biking, we can combat these startling statistics. It is recommended that adults participate in moderate activity for 150 minutes a week. This translates to 30 minutes a day for 5 days a week. By providing biking and walking infrastructure that connects to people's everyday destinations or that are convenient to them, they are allowed to more easily incorporate this activity into their daily routine. Studies have shown that an investment of \$1 in biking and walking translates into \$3 in direct medical savings. Kids who walk or ride to school arrive ready to learn and are more focused. Workers who use alternative modes of transportation are more productive.

Bicycle and pedestrian infrastructure can provide valuable economic benefits to a community. In the Midwest we must create our attractors for both businesses and residents in order to be competitive. A study done on the role of recreation, parks, and open space suggests that owners of small businesses rank these types of amenities as one of the most important factors when choosing a location for their business. The National Association of Home Builders lists trails as the most desired community amenity homeowners seek when buying a home. In Indianapolis it was determined that the value of homes increased within 1/2 mile of a greenway by an average of \$4400 dollars. Similar studies done around the nation report similar increases in property values.

The construction of trails also creates jobs for local businesses. A national study of employment impacts for bicycle and pedestrian infrastructure completed in 2011 indicates that 9.6 jobs are created for every \$1 million spent on construction of off-street multi-use trails. This is actually higher than for the same investment in construction of road-only projects. The study indicates road-only jobs create 7.8 jobs. Another benefit is that the jobs created for the construction of the multi-use trail tend to be more local than road-only projects.



Bicycle and Pedestrian projects create positive environmental benefits for the community. By providing more alternative transportation choices, this reduces vehicular trips and reduces carbon emissions in the air. Additionally, bicycle and pedestrian infrastructure projects typically incorporate green infrastructure. Plantings from green infrastructure helps to reduce storm water runoff and breakdown pollutants from vehicles before they can get into our waterways.

This plan is intended to provide guidance to local government decision-makers in terms of future community development and infrastructure

BICYCLE AND PEDESTRIAN NETWORK TARGET USERS

The plan is intended to improve conditions for pedestrians and bicyclists who either wish to or need to make daily trips for goods and services within their community, and recreational users looking to maintain or improve their health. Users that fall into the category of needing to make trips by foot are the elderly who can no longer drive, schoolchildren, those people that are unable to afford or maintain a car and therefore need to find alternative means to make connections.

This plan is also for casual bike riders that may not be comfortable riding among automobile or truck traffic. These types of riders account for 60% of the bicycling population, and require improved infrastructure or residential streets with low traffic and speed limits to make connections within the community.



GOALS & OBJECTIVES

- 1. Increase the number of people that exercise daily by providing safe walking and biking experiences for citizens of all ages and levels of ability.
- 2. Increase the number of people walking and bicycling for everyday transportation purposes such as commuting to work, to school and running errands.
- 3. Enhance community connections to neighborhoods, parks, schools, library, businesses, retail and dining, and government facilities.
- 4. Increase the quality of life for the residents of Hancock County in an effort to retain current citizens and attract new citizens.
- 5. Provide guidance and priorities for implementing infrastructure to support walking and bicycling with a broad range of funding and support.
- 6. Provide program and policy recommendations that help support and increase walking and biking in the community.
- 7. Provide community awareness of motorists and cyclists sharing the road through appropriate roadway markings, signage, and public education.
- 8. Increase eco-tourism in Hancock County by attracting people that are looking for healthful recreational activities in the region.
- 9. Be ready for future funding opportunities when they present themselves.
- 10. Identify future Safe Routes to Schools opportunities.
- 11. Create connections between communities within Hancock County.

SCOPE OF THE PLAN

The plan studies all of Hancock County. The plan investigates both on-road facilities as well as separated corridors that can be improved to enhance the existing pedestrian and bike network. A master plan for infrastructure improvements has been developed. Priority corridors are identified. Development Standards and possible funding opportunities are included for all routes. Public input has been sought throughout the master plan.

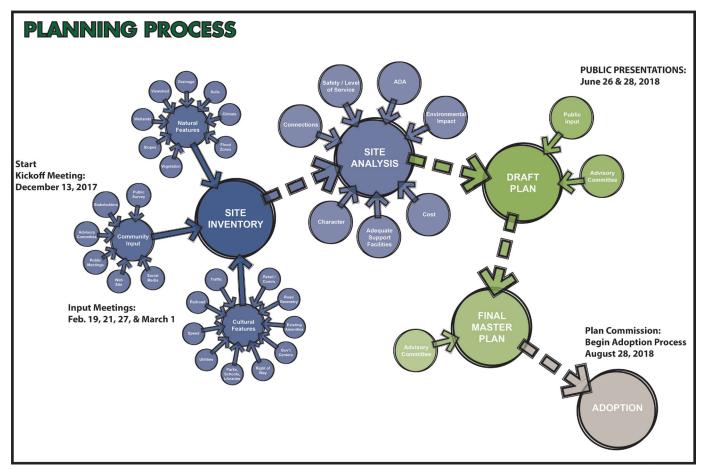
Bicycle and walking programs and policies have been developed for the entire community to help support the infrastructure plan. The programs and policies concentrate on the areas of education, encouragement, enforcement, engineering, and evaluation.



PROJECT TIME FRAME



DESIGN PROCESS







SUMMARY OF PUBLIC INPUT

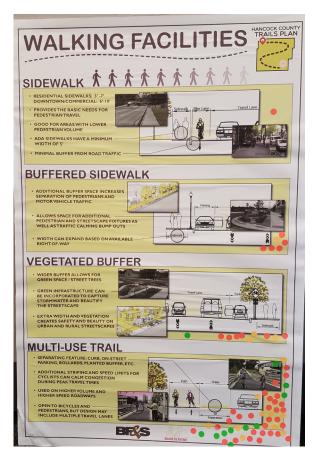
Public participation is an integral part of any planning process and was an important component of the Hancock County Trails Plan. Opportunities for community input included public open houses, an on-line survey, and stakeholder meetings. Feedback from the survey and meetings were incorporated into the final plan recommendations. Incorporating the thoughts, ideas, and concerns of community members helps to address high priority issues and builds ownership of the plan.

Public Open Houses

Four public open houses were held in locations throughout Hancock County; details for each are listed below. The number of people who signed in for the public meetings was 121; total attendance was likely higher, as some people did not sign in.

The open houses had two tables with an overview map of Hancock County and four maps that split the county into quadrants. These maps included current trails and corridors owned by the Indiana Department of Natural Resources. Participants were asked to identify desired destinations and routes, as well as concerns or barriers. A summary of desired routes and map comments can be found on page 7-41.

Attendees also had the opportunity to vote on the bike and pedestrian infrastructure they would most like to use. Two boards depicted different walking and biking facilities and participants used dot stickers to vote for one of each. The overall results are below.







Walking

- Sidewalk 1
- Vegetated Buffer 16
- Buffered Sidewalk 9
- Multi-use Trail 71

Biking

- Bike Lane 9
- Separated Bike Lane 11
- Sharrow 1
- Multi-use Trail 69

The public open houses also had a looping PowerPoint presentation with information on programs and policies and laptop stations to allow people to fill out the public survey.

Wilkinson – Shirley

- Monday, February 19, 6:00 8:00
- Wilkinson Fire Department: 440 E. B St. Wilkinson, IN 46186
- 18 sign-ins

Fortville - McCordsville

- Wednesday, February 21, 6:30 8:30
- Fortville-Vernon Township Library, 625 E. Broadway St., Fortville, IN 46040
- 17 sign-ins

Cumberland - New Palestine

- Tuesday, February 27, 6:00 8:00
- New Palestine Town Hall, 42 E. Main St., New Palestine, IN 46163
- 51 sign-ins

Greenfield

- Thursday, March 1, 5:00 7:00
- Creative Art Center, 2 W. Main St., Greenfield, IN 46140
- 35 sign-ins

Stakeholder Meetings

Three stakeholder meetings for the Hancock County Trails Plan were held with invitations targeted at Governmental Stakeholders, Private/Business Organizations, and Elected and Appointed Officials. Attendance and other details are below. Each meeting began with an overview presentation of the plans goals and process. Attendees then went to breakout discussion tables where consultants provided more specific details, listened to concerns, and answered questions.



Governmental Stakeholders

- Thursday, April 26, 1:30 3:30
- Hancock County Regional Hospital, 801 N State St, Greenfield, IN 46140
- 27 sign-ins

Private Businesses/Organizations

- Thursday, April 26, 3:30 5:30
- Hancock County Regional Hospital, 801 N State St, Greenfield, IN 46140
- 5 sign-ins

Elected and Appointed Officials

- Thursday, April 26, 6:00 8:00
- Buck Creek Township Fire Department, 5809 W Airport Blvd, Greenfield, IN 46140
- 10 sign-ins

Public Survey

As part of the Hancock County Trails Plan process, a public survey was developed and distributed throughout Hancock County. The survey was modeled after similar public input surveys conducted as part of other communities' planning processes and was intended to better understand existing attitudes and behaviors related to walking and biking, as well as to collect input and ideas on potential strategies to be pursued.

The full survey, with responses, can be found in Appendix A. The survey was completed by 1,043 respondents. The age characteristics of those taking the survey are summarized below.

- 0 17 years: 17.8%
- 18 24 years: 4.7%
- 25 34 years: 16.6%
- 35 44 years: 25.7%
- 46 64 years: 27.9%
- 65+ years: 7.2%

The majority of respondents, 63.8%, indicated that they only drive the places they go. Nearly one-third responded that they use a combination of biking, walking, transit and driving to get to places they're going, but they mostly drive.

About half of respondents, 54.2%, indicated that they do not bike regularly, and 35.1% bike once per week or less. More than two-thirds of those surveyed reported that they want to bike more. When asked about the characteristics of good places for biking, the top responses included: bike trail or designated paths that are physically separated from traffic; good pavement condition (road doesn't have many potholes or bumps); and low traffic (slow moving vehicles). People chose the following reasons for not biking more: lack of designated bike paths, lanes, and routes; high traffic volume; and the difficulty of crossing busy streets. Several respondents opted to write-in an "other" response and noted their



lack of time to bike, showing the need to create a system that is convenient to use as part of everyday activities.

Regarding walking and running, 38.9% of respondents answered that they walk or run once per week or less and 36.1% walk or run two to three times per week or more. The majority of survey takers, 75.2%, would like to walk or run more. The top characteristics of a good place to walk or run included: sidewalks that are separated from the street by a grass strip; continuous sidewalks that do not end; and high-quality sidewalk pavement (no bumps, gaps, or tripping hazards). When asked what prevents them from walking more, the top answers were similar to the same question about biking: lack of continuous walking or jogging areas such as sidewalks or trails; high traffic volume; and the difficulty of crossing busy streets. Again, those that wrote-in an "other" response often named time as a reason to not walk or run more.

Asked what places within Hancock County they would like to walk or bike to, respondents indicated that city parks, restaurants, and around their neighborhoods were top choices. The walking or biking programs people would most like to see include an online reporting system for problem intersections or areas; Safe Routes to School programs; bicycle safety classes for children; a walking club; and Walk and Bike to School days. The highest rated goals for the plan were enhancing community connections to neighborhoods, parks, schools, library, businesses, retail and dining, and government facilities; improving the health of Hancock County residents by providing safe walking and biking experiences for people of all ages and abilities; and increasing the quality of life within Hancock County in an effort to retain current residents and attract new ones.

Three-fourths of survey takers agree or strongly agree that safe and widespread biking and walking accommodations are important to their quality of life. Even more respondents (81.4%) agree or strongly agree that safe and widespread biking and walking accommodations are important to their community's quality of life. Most (84%) agree or strongly agree that Hancock County needs more accommodations that promote safe walking and biking.

The majority of respondents (82.2%) believe it is important for Hancock County to increase public investment in biking and walking infrastructure, such as trails, sidewalks, and bikeways. Asked whether they would support an increase in public funding to help pay for these improvements, 64.8% responded yes, while 19.7% were unsure, indicating some people may need more information before supporting such a proposal.

The survey also asked what current behaviors respondents would change if Hancock County were to invest in creating an enhanced bicycle and pedestrian network. Top responses included increasing biking and walking for exercise and wellness; walking or biking to the park or for recreation; promoting biking and walking amongst friends and family; and supporting public funding for improving the bicycle and pedestrian network.

Taken collectively and individually, survey responses provided valuable information about walking and biking in Hancock County today and offered a vision for what it can be in the future. The information collected was used to inform and develop both the infrastructure and non-infrastructure recommendations

HANCOCK COUNTY TRAILS PLAN

PUBLIC INVOLVEMENT

presented later in the plan and serves as a benchmark by which future progress can be measured.

Draft Plan Meetings

A draft of the Hancock County Trails Plan map and program and polices was presented at two public meetings. These meetings consisted of an overview presentation that included the plan process and information learned from various public participation outlets. Attendees were given copies of the plan map and an overview of programs and policies. After the presentation, attendees had the opportunity to meet with consultants at tables to discuss concerns and ask questions. Feedback provided at these meetings was taken into consideration when creating the final plan. Meeting details are listed below.

Draft Plan Meeting #1

- Tuesday, June 26, 6:30 8:30 PM
- NineStar Connect, 2243 E Main St., Greenfield, IN 46140
- 23 sign-ins

Draft Plan Meeting #2

- Thursday, June 28, 6:30 8:30 PM
- Buck Creek Township Fire Station, 5809 W. Airport Blvd., Greenfield, IN 46140
- 26 sign-ins

Summary of Draft Plan Public Comments

In Support

893 people want more walking and biking options Online Survey & Mail-in Comments

Oppose Plan

*4 people Public Meeting & Mail-in Comments
160 people Petition

Oppose in Their Area

3 people Mail-in Comments

Seeking More Information

2 people

*Note:

Several people both spoke out against the plan at the Draft Plan Public Meetings and sent comments through the mail. Several people both signed a petition and sent comments through the mail. Only one remonstrance against the plan was tallied in the summary above.



Project Website

A project website was created at the beginning of the process to distribute vital information regarding the plan and to keep the public up-to-date on the progress of the plan. Information on project background, frequently asked questions, up coming meetings and the most current version of the plan were posted for the public to view.

Public input in the form of and on-line survey and feedback on the draft plan were all posted on the project website. The public was encouraged to check the website frequently for updates.





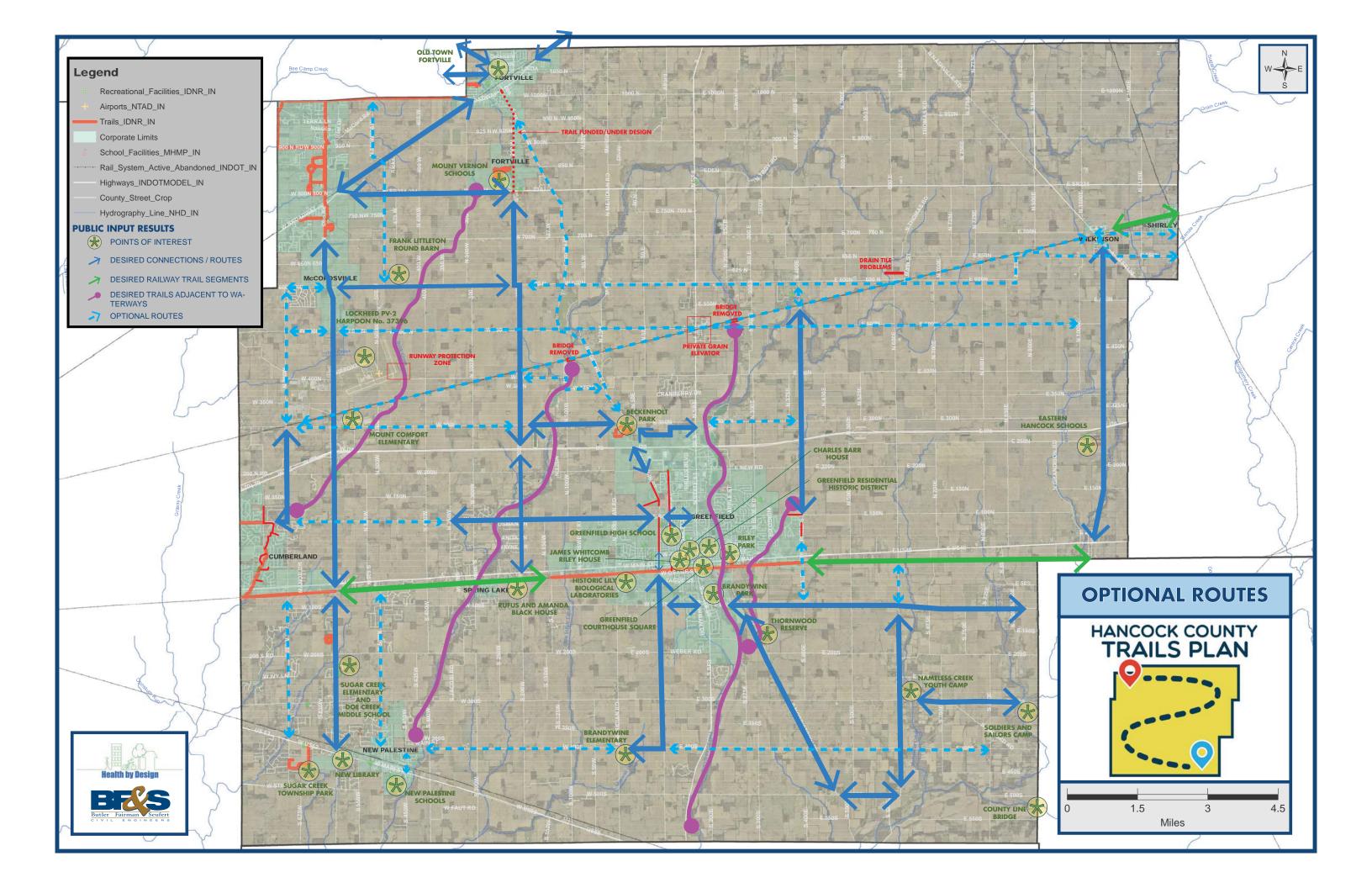


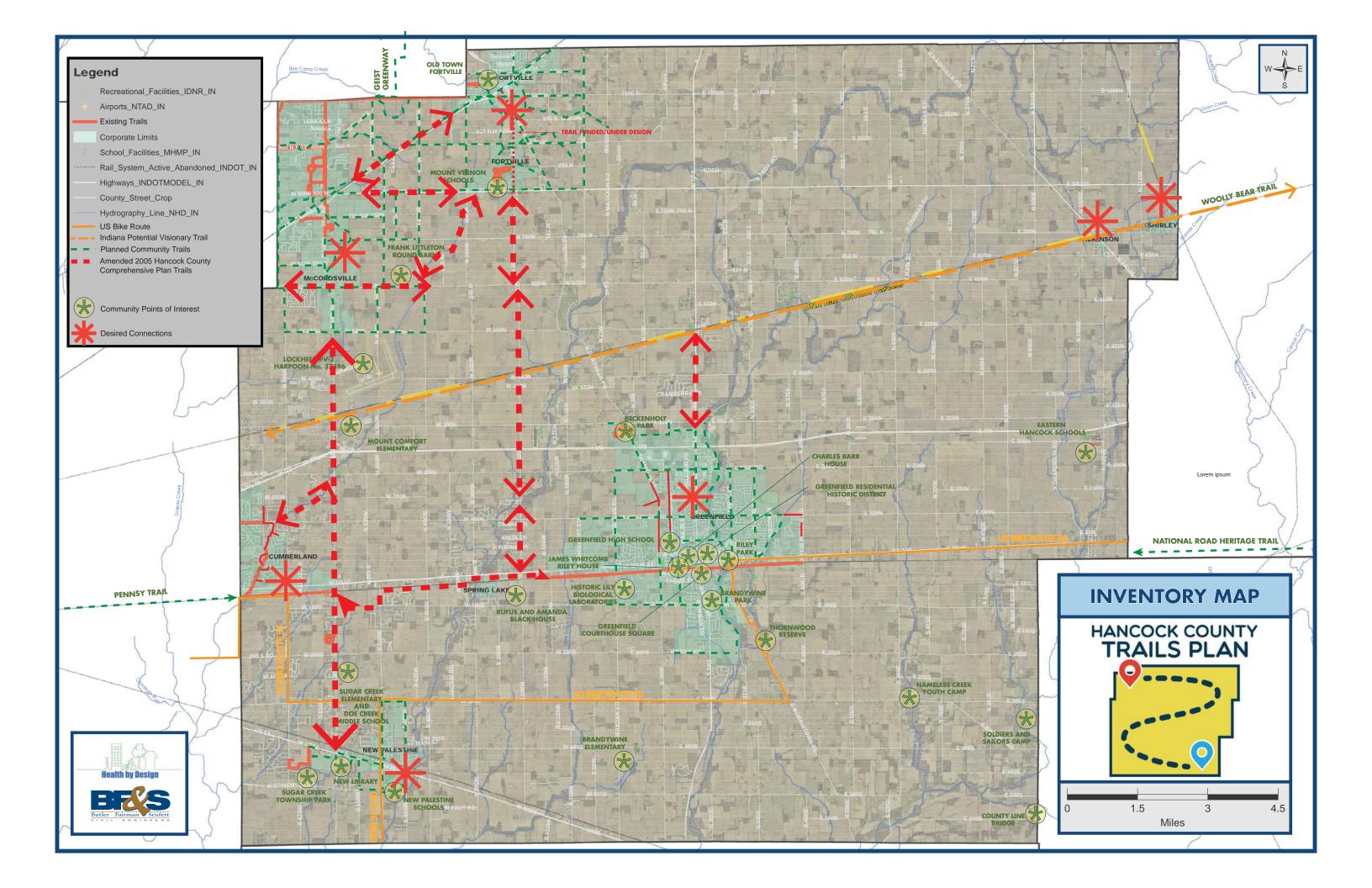
SUMMARY OF INVENTORY

Following the input from the community at the public open houses and stakeholder meetings, the design team created a map summarizing the desired routes and optional routes throughout the county. See the OPTIONAL ROUTES Map.

An inventory map summarizing public destinations, planned community trails, planned statewide trails, and planned regional trails was produced. The team documented the existing infrastructure and conditions along the desired routes for the master plan. Measurements of road lane widths, buffer widths, sidewalk widths, and traffic conditions were documented. See the INVENTORY Map.

A separate map was created showing private destinations throughout the county that have been designated as agri-tourism. See Appendix B.







BIKEABILITY CONDITIONS

In addition to public and stakeholder input, the team used a Bicycle Level of Service (BLOS) calculator as an additional tool to measure bikeability.

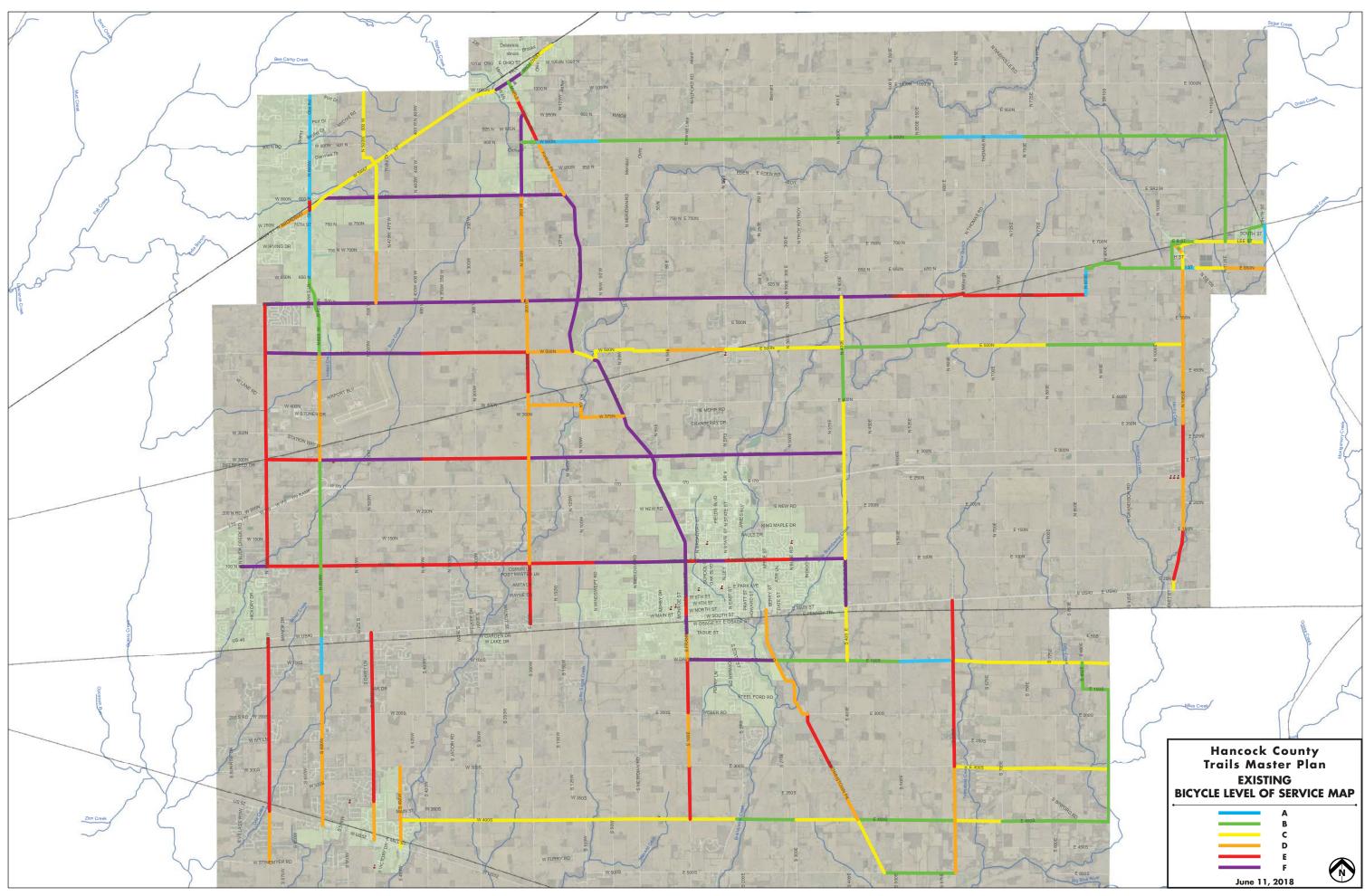
The design team measured mid-block cross sections of the roads along identified "desired" routes as part of the inventory process, and analyzed them to visualize where opportunities were available to gain space for bicycle facilities along roadways. The team looked at the existing lane widths to understand if narrowing the lanes would be appropriate and how much space could be gained from that treatment. Opportunities and constraints were recognized at each mid-block section based on apparent available right-of-way, existing utilities, drainage structures, curb type, distance from street to building, and utilization of on-street parking.

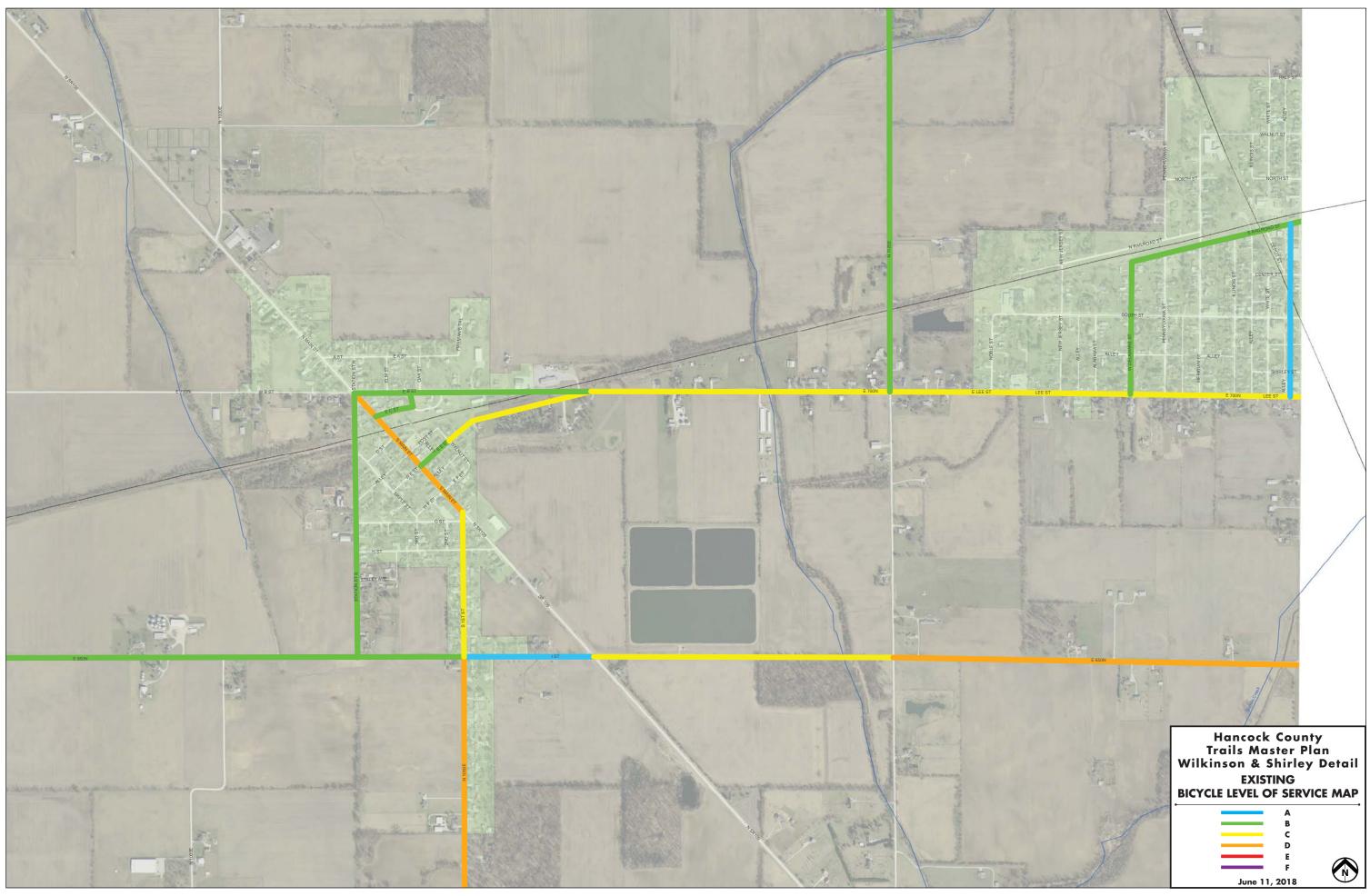
Measurements of the mid-block geometry of each route, along with the average daily traffic, speed limit, and percent of commercial traffic, were inserted into the Bicycle Level of Service Calculator (BLOS). The BLOS is a nationally-used measure of on-road bicycle level of comfort based upon a roadway's geometry and traffic conditions. Its intent is to understand the comfort level of a beginner to intermediate rider. See Appendix C for calculation data and scores.

A map was created that reveals the existing BLOS conditions by color coding those routes that are more suitable for casual riders and those that are currently more appropriate for expert riders.

In general the existing biking conditions in Hancock County can be roughly divided along a line created by Fortville Pike / Franklin Street. Most roads west of this line are not suitable for biking by all but expert riders due to narrow roadways with high speed and high traffic volumes. East of this line the traffic volumes drop off and some county roadways become suitable for biking. Several of the biking groups currently use roadways in the southeast corner of the county for their weekly rides.

The following maps illustrate the existing BLOS for the routes studied. A grade of "A" through "B" indicates that the route is suitable for a casual rider. A grade that equals high "C" indicates that the route is borderline suitable for casual riders. A grade of "D" through "F" means that only expert riders would feel comfortable riding the route in its present conditions and that an improvement is needed.







WALKABILITY CONDITIONS

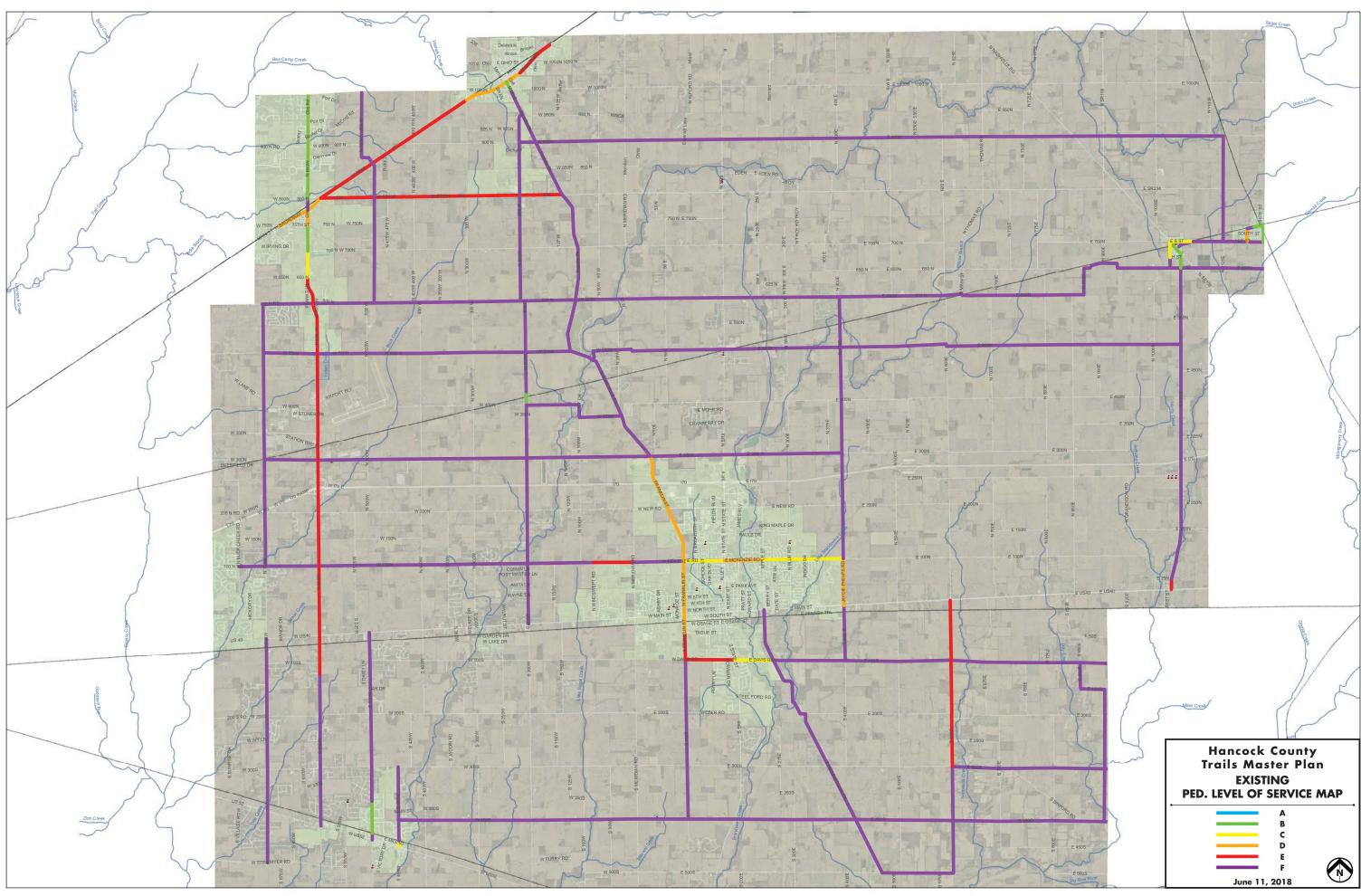
In addition to public and stakeholder input, the team used a Pedestrian Level of Service (PLOS) calculator as an additional tool to measure walkability.

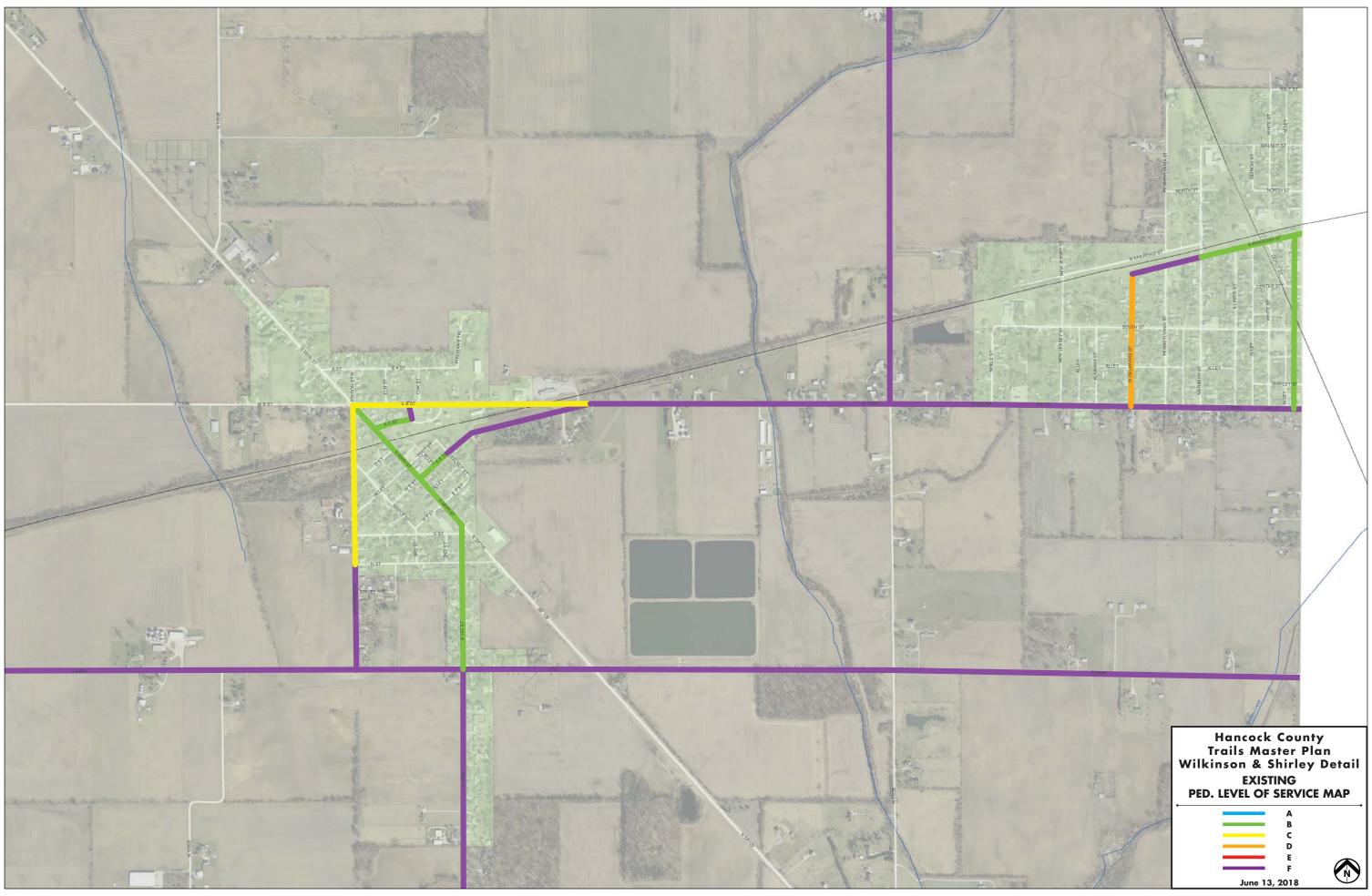
The team analyzed the same corridors for pedestrian level of service that were analyzed for bikeability conditions to see if the corridor would support both biking and walking. Corridors that currently had sidewalks on both side of the streets were deemed as highly walkable, corridors or sections of corridors with a sidewalk located only on one side were deemed borderline walkable, and sections that had sidewalks on neither side of the road were considered not walkable.

A map was then created that summarizes the existing Pedestrian Level of Service (PLOS) conditions by color coding those sections that are more suitable for walking and those that need improvement. Routes with an A and B level are considered to be on the high side of walkability. Sections that fall into the C level are considered borderline walkable, and D-F levels are considered less walkable or not walkable. See Appendix C for calculation data and scores.

As expected the only walkable corridors were located within the urban core of each community where sidewalks and trails were already present. Out in the county there are very narrow roadways with little to no shoulders and no sidewalks. Walking or jogging along these roadways would be treacherous.

The following maps illustrate the existing PLOS for the study area.





HANCOCK COUNTY TRAILS PLAN



FINAL PLAN

HANCOCK COUNTY TRAILS PLAN

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BICYCLE AND PEDESTRIAN FACILITY MASTER PLAN

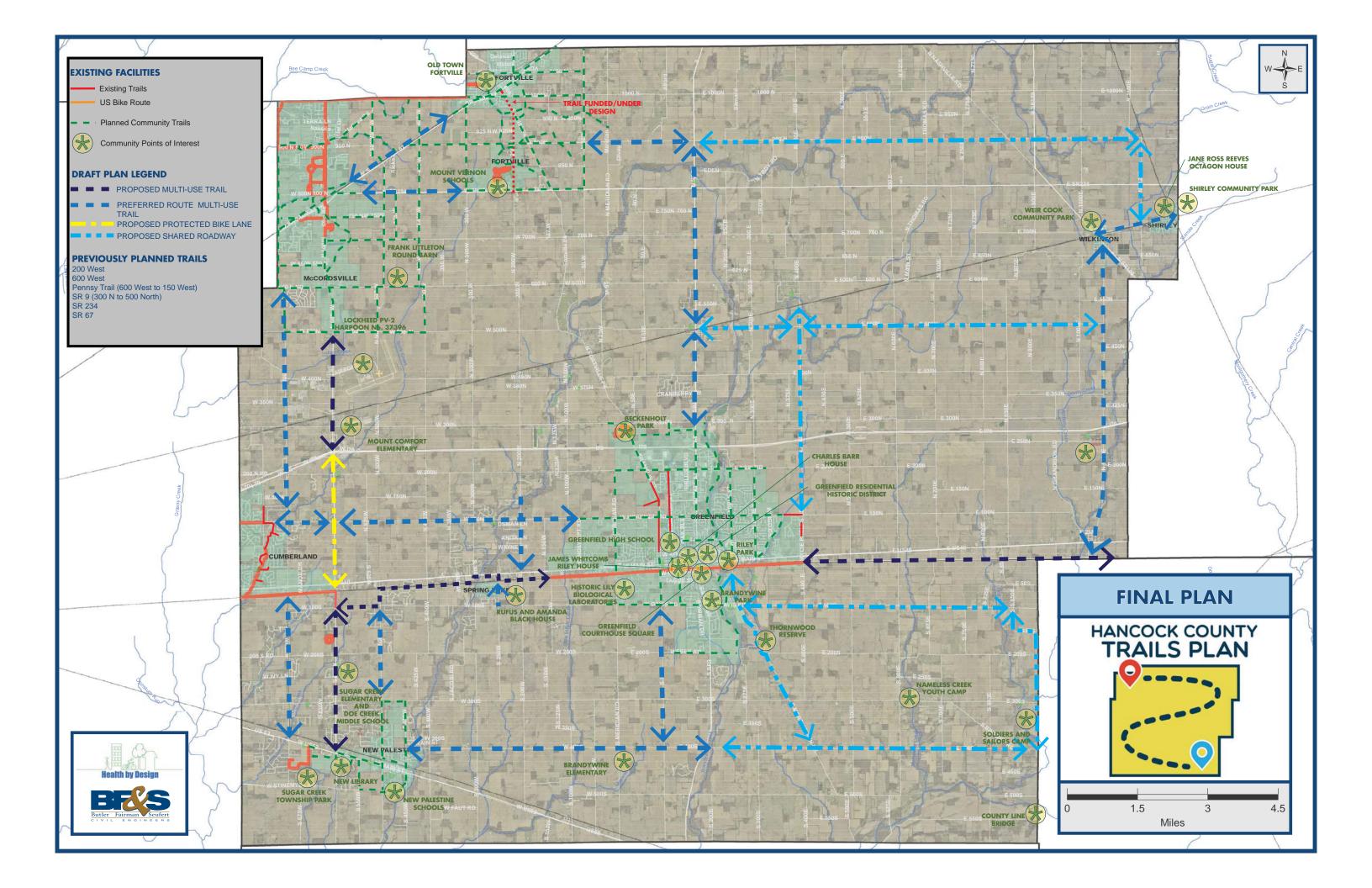
The finalized bicycle and pedestrian facility master plan identifies 15 different corridors for improvement. Three different types of bicycle and pedestrian treatments are proposed to strengthen the bicycle and pedestrian network. The plan will use shared roadways, protected bike lanes, and multi-use trails for this purpose.

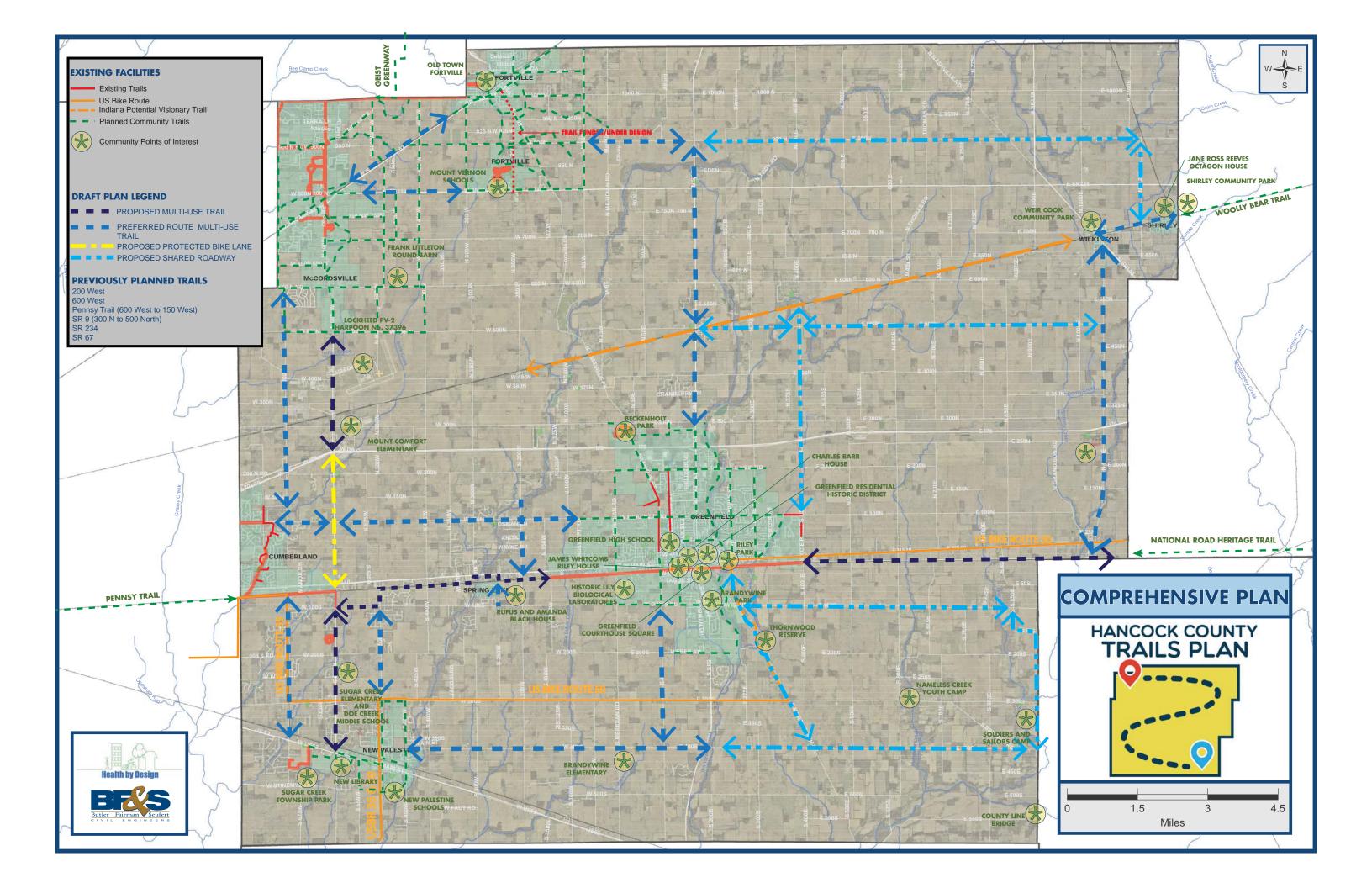
A **Proposed Shared Roadway** is defined as a facility which is open to both bicycle and motor-vehicle travel and has a high priority for development. It will be designated as a route for bicycle use by means of signing and marking the roadway. It is recommended that speed limits be reduced on roadways designated as shared roadways. See the Development Standards section for more information on shared roadways.

A **Proposed Protected Bike Lane** is defined as a portion of the roadway that has been designated by means of signing and striping for the exclusive use of bicyclists. The proposed designation means that it has high priority for development. A protected bike lane is usually separated from the roadway by a minimum of 3 feet. See the Development Standards sections for more information regarding bike lanes.

The multi-use trails have been divided into two different designations. A **Proposed Multi-Use Trail** intended for bicyclists and pedestrians is defined as a facility that is physically separated from motorized traffic and has the highest priority for development. A **Preferred Route Multi-Use Trail** is defined as a facility that is physically separated from motorized traffic, but the actual location may vary depending on the current property use and nearby existing and future development. Should the current use of the property change, then the developer shall be required to accommodate the preferred route multi-use trail. See the Development Standards section for more information on multi-use trails.

See the next page for the Final Master Plan map.







FINAL PLAN

TOTAL DISTANCE OF BICYCLE & PEDESTRIAN FACILITIES SUMMARY

Shared Roadways: 44.2 miles

Protected Bike Lanes 3.3 miles

Multi-Use Trail: 71.7 miles

PREFERRED LOCATION OF MULTI-USE TRAILS

Below is a summary of the locations for the Proposed Multi-Use Trails and the Preferred Route Multi-Use Trials along each roadway. The location is based upon the least disturbance to individual property owners and connecting to public identified destinations along the corridor. The location is suggested and final locations will be determined based on the current property use and existing and proposed development.

North to South Trails

Street Name	From Street	To Street	West Side	East Side
700 West	US 52	200 South		х
700 West	200 South	Pennsy Trail	х	
700 West	100 N	600 N	х	
600 West	US 52	100 S		Х
600 West	300 N	500 N		Х
500 West	300 S	100 S		Х
250 West	100 S	Pennsy Trail		Х
200 West	Pennsy Trail	W. Haines Pass		Х
Franklin Street	400 S	100 S	Х	
SR 9	300 N	600 N		X
SR 9	600 N	900 N		Х
1050 East	Pennsy Trail	150 N		X
1050 East	150 N	350 N	Х	
1050 East	350 N	550 N		X
1050 East	550 N	SR 109		X



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West to East Trails

Street Name	From Street	To Street	South Side	North Side
400 S	450 West	SR 9	Х	
100 N	Buck Creek Trail	600 West		X
100 N	600 West	200 West		х
100 N	200 West	Windswept Rd	Х	
900 N	50 West	SR 9	Х	
SR 234	500 West	300 West		Х
SR 67	McCordsville	Fortville		Х

TRAILS PLAN

HANCOCK COUNTY

FINAL PLAN

BIKEABILITY CONDITIONS

After creating the new master plan map, the team once again used the BLOS calculator tool with the revised data to create a new map reflecting the potential bikeabilty for the county once all facilities are implemented. See Appendix C for proposed calculation data and scores.

A grade of "A" through "B" indicates that the route is suitable for a casual rider. A grade that equals high "C" indicates that the route is borderline suitable for casual riders. A grade of "D" through "F" means that only expert riders would feel comfortable riding the route in its present condition.

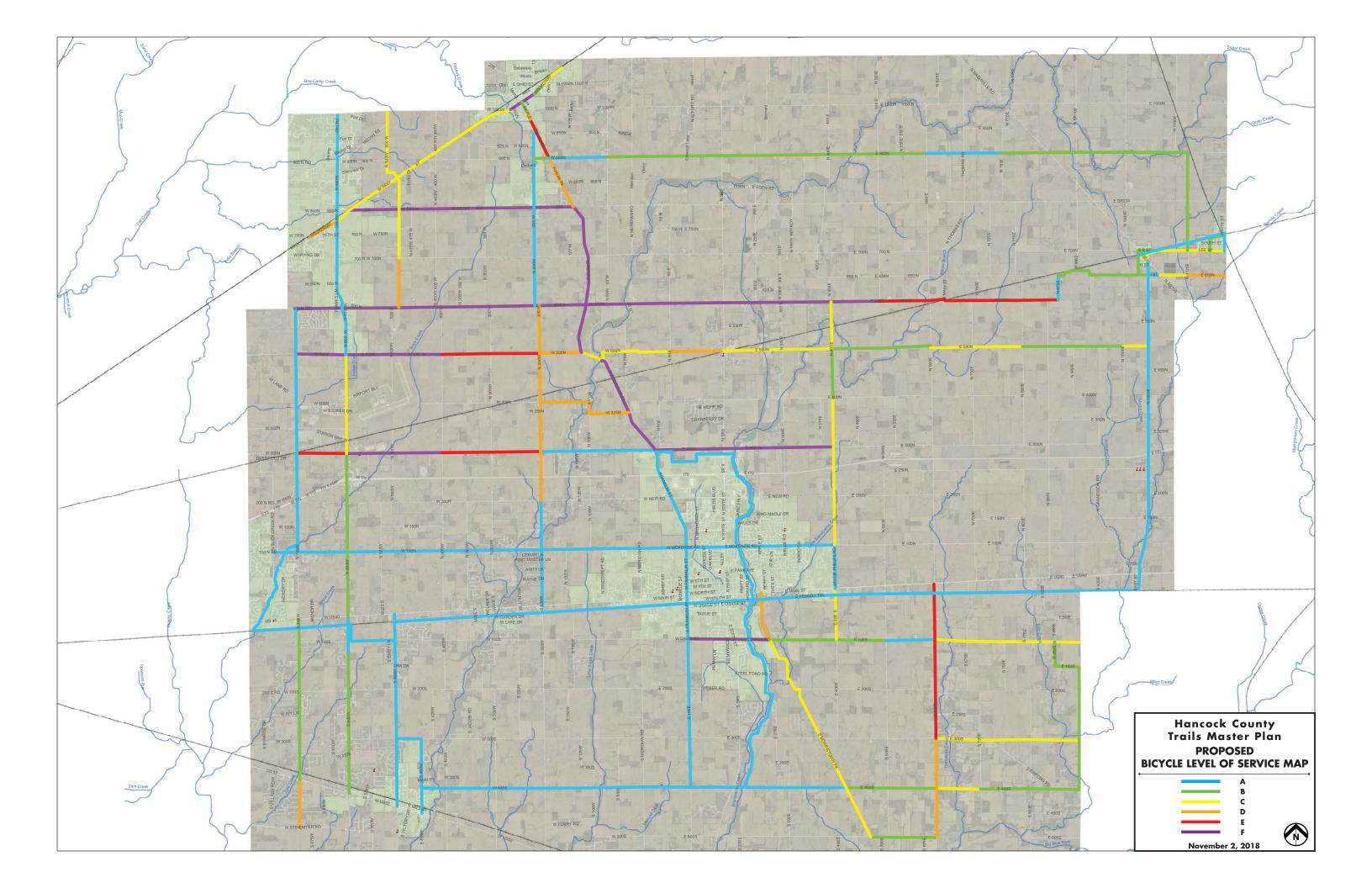
The following maps illustrate the Proposed BLOS for the study area.

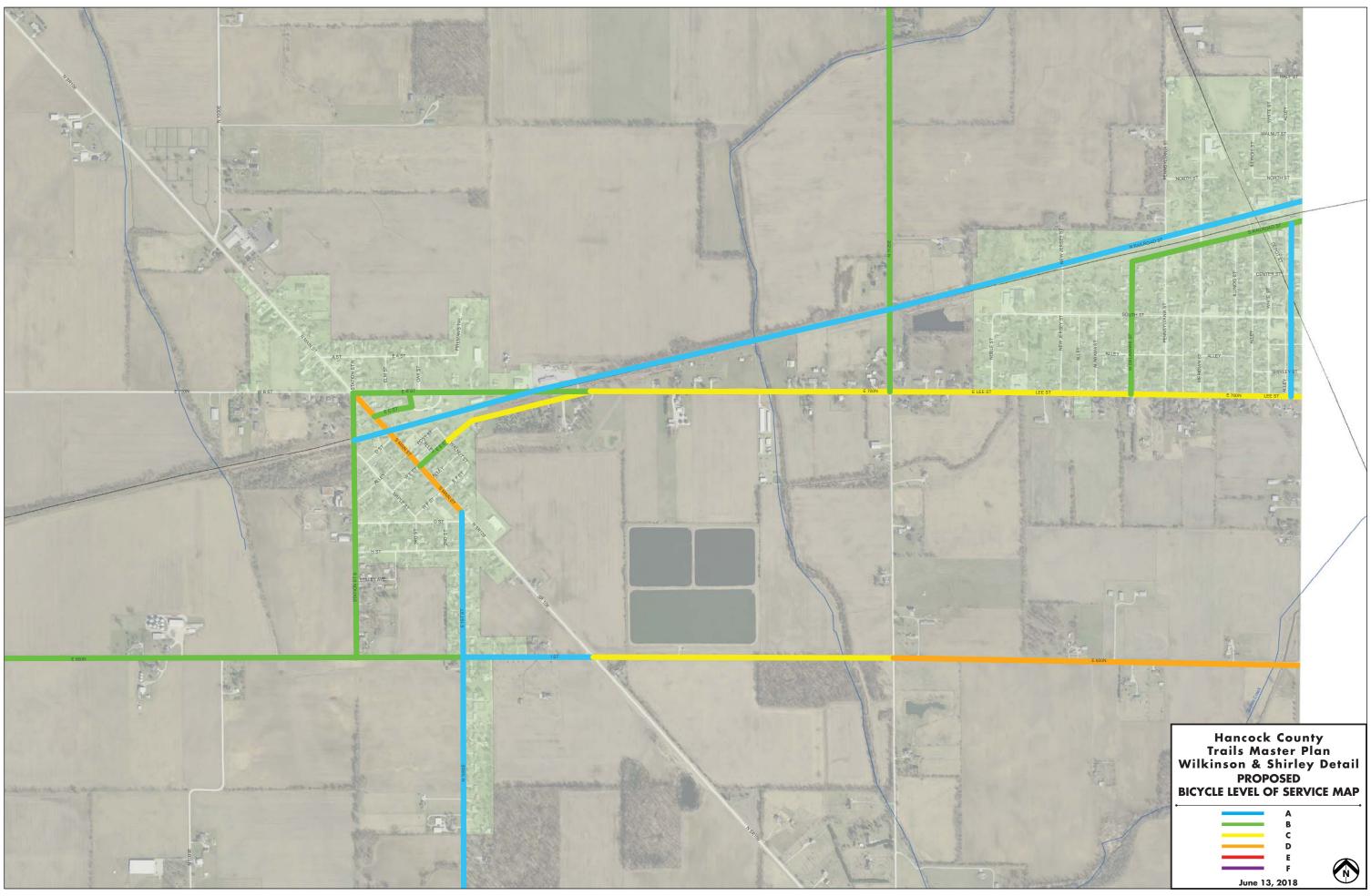
WALKABILITY CONDITIONS

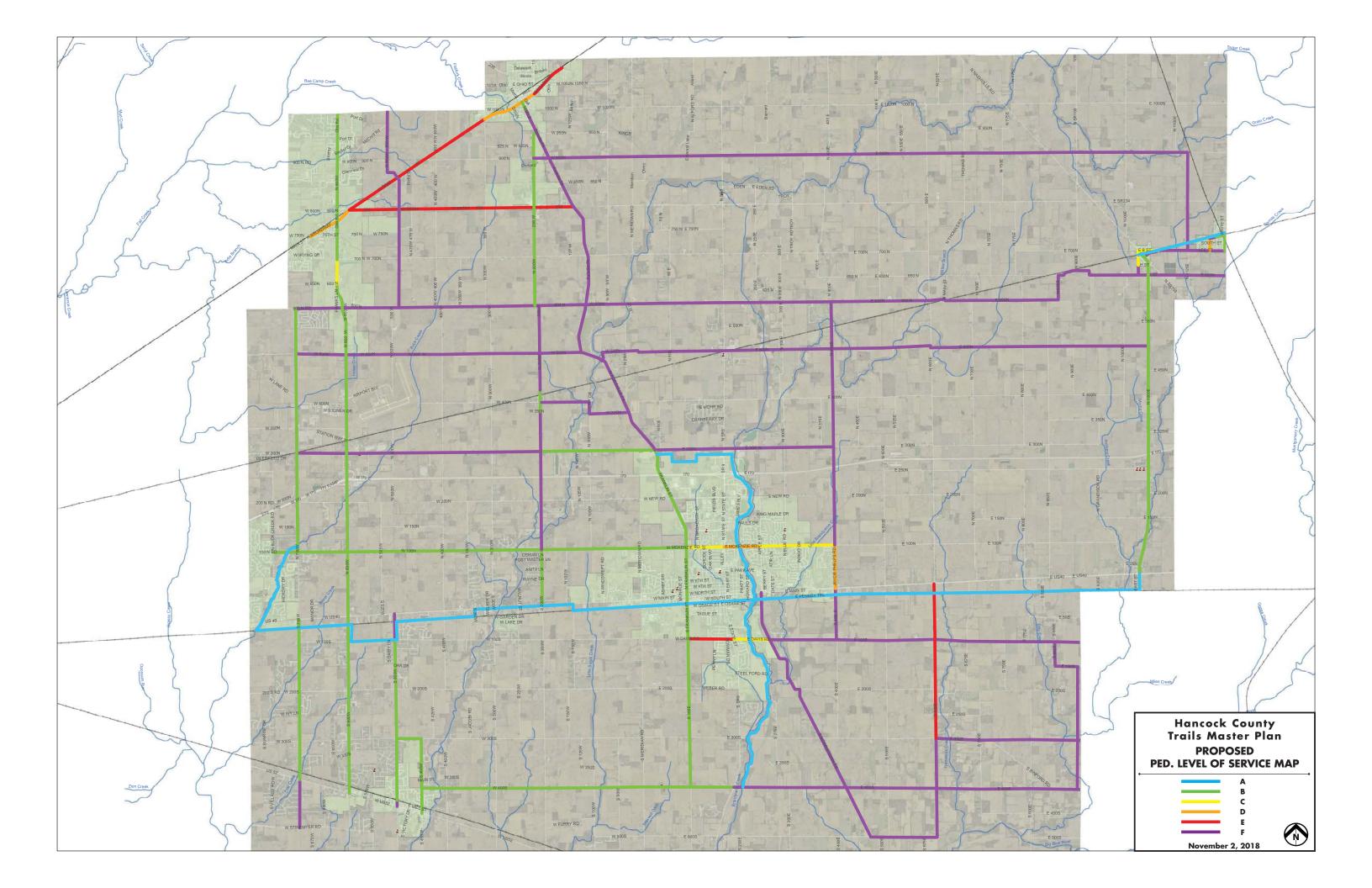
After creating the new master plan map, the team once again used the PLOS calculator tool with the revised data to create a new map reflecting the potential walkability for the county once all facilities are implemented. See Appendix C for proposed calculation data and scores.

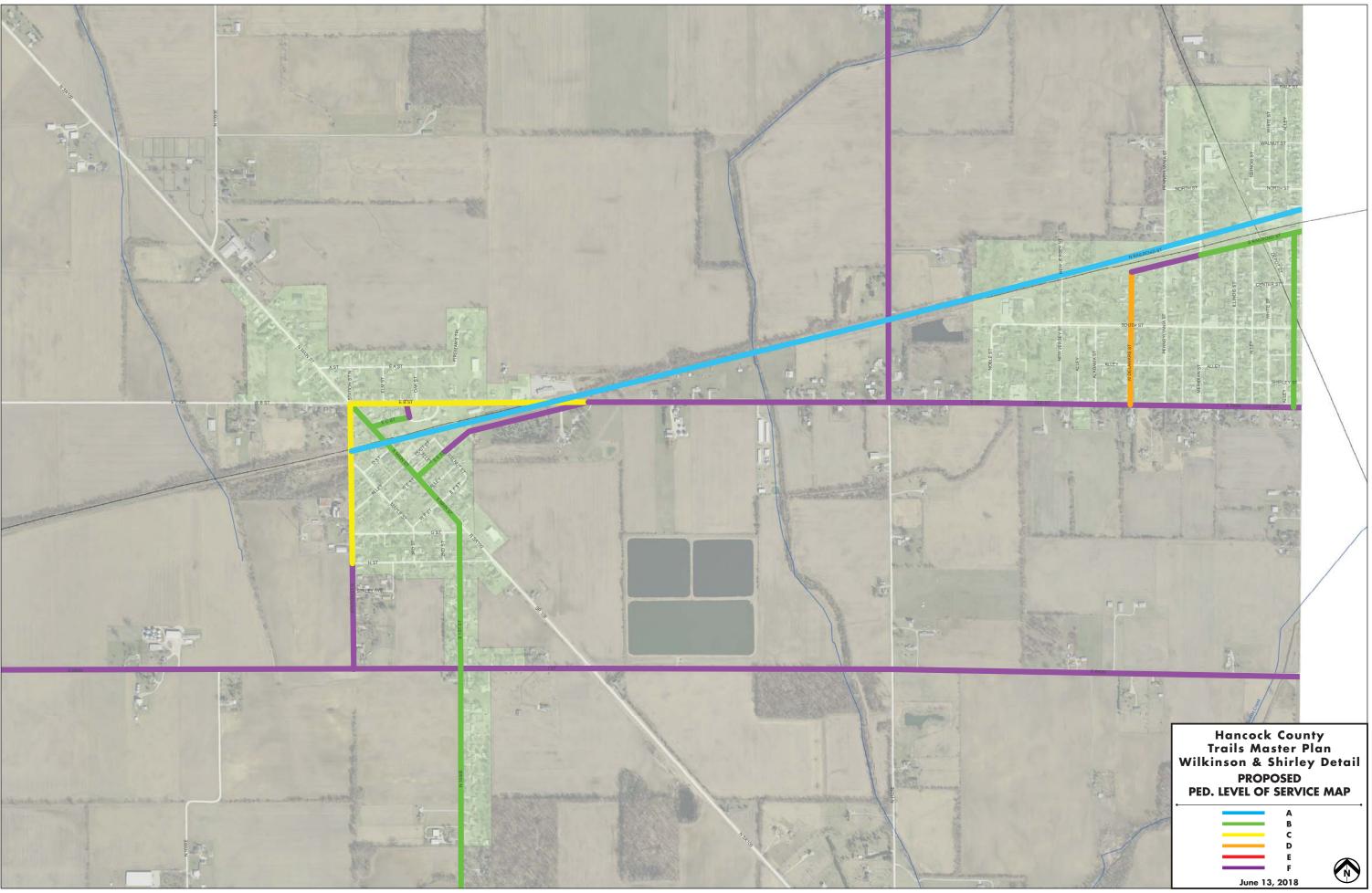
Routes with an A and B level are considered to be on the high side of walkability. Sections that fell into the C level are considered borderline walkable, and D-F levels are considered less walkable or not walkable.

The following maps illustrate the Proposed PLOS for the study area.











FINAL PLAN

PRIORITY ROUTES

In general, the cost of most shared roadways can be installed for much less than other types of facilities like a multi-use trail and could be installed by local agencies. For this reason the shared roadway routes are not included in the priority routes. They may be included in the County's annual striping budget, and may be installed as soon as possible. These routes include: Morristown Pike, CR 400 South, CR 900 East, CR 850 East, CR 150 South, CR 100 South, CR 400 East, CR 500 North, CR 900 North, and CR 1125 East.

A rating system has been developed to help with the decision making process regarding the priority of each trail facility being implemented. Each route starts with (1) one point and then points are added based upon the following criteria. There are a total of (13) thirteen points available with (13) thirteen being the highest. Below is the rating criteria for the plan.

Rating Criteria

Route connects to 2 or more existing bicycle / pedestrian facilities (vital link)	+2
Route is a vital link to connecting two communities	+2
Route is on a Statewide Trail Plan	+2
Route is part of an upcoming county project	+2
Route is a public "desired" route	+1
Route connects to an existing bicycle / pedestrian facility	+1
Route connects to a public "desired" destination point	+1
Route connects to a low income area	+1
Population Density Over 200 People Per Square Mile	+1
Property Owner Remonstrated Against Route	-1

A scoring table has been created using the rating criteria above. The scoring table and priority routes may change as development occurs. The steering committee should regularly update the scoring table to make sure the priority list is current. See Scoring Table next page.

Hancock County Trails Plan Priority Route Scoring Table

Map#	Street Name	From Street	To Street	Route Connects to 2 or More Existing Bike / Ped Facilites	Route is a vital link to connecting two communities	Route Is on a Statewide Trail Plan	Route Connects to an Existing Bike / Ped Facilty	Route is part of an upcoming county project	Route is identified in the plan	Route connects to a public "desired" destination point	Route Connects to a low income area	Population Density of Over 200 People Per Square Mile	Property Owner Remonstrated Against Route	POINT TOTAL
1	700 West	US 52	Pennsy Trail	0	2	0	0	0	1	1	0	1		5
2	700 West	100 N	600 N	0	2	0	1	0	1	0	0	1		5
3	600 West	US 52	100 S	0	2	0	1	2	1	1	0	1		8
4	600 West	US 40	500 N	0	2	0	1	2	1	1	0	1		8
5	500 West	300 S	100 S	0	2	0	1	0	1	0	0	1		5
6	250 West	100 S	Pennsy Trail	0	0	0	1	0	1	0	0	0		2
7	200 West	Pennsy Trail	W. Haines Drive	0	0	0	0	0	1	1	0	1		3
8	Franklin Street	400 S	100 S	0	0	0	1	0	1	0	0	1		3
9	SR 9	300 N	600 N	0	2	0	0	0	1	0	0	1		4
10	SR 9	600 N	900 N	0	0	0	0	0	1	0	0	0		1
11	1050 East	Pennsy Trail	250 N	0	0	0	0	0	1	1	0	0		2
12	1050 East	250 N	550 N	0	0	0	0	0	1	1	0	0		2
13	1050 East	550 N	SR 109	0	0	0	0	0	1	1	0	0		2
14	400 S	450 West	SR 9	0	0	0	0	0	1	1	0	0		2
15	Penssy Trail	600 West	150 West	2	2	2	1	0	1	1	0	1		10
16	Pennsy Trail	400 E	1050 E	0	0	2	1	0	1	1	0	0		5
17	100 N	Buck Creek Trail	600 West	0	0	0	1	0	1	0	0	1		3
18	100 N	600 West	350 West	0	0	0	0	0	1	0	0	1		2
19	100 N	350 West	Windswept Rd	0	0	0	0	0	1	0	1	1		3
20	900 N	50 West	SR 9	0	0	0	0	0	1	1	0	0		2
21	SR 234	500 West	300 West	0	2	0	0	0	1	0	0	0		3
22	SR 67	McCordsville	Fortville	0	2	0	0	0	1	0	0	0		3
23	NYC RR	Wilkinson	Shirley	0	2	2	0	0	1	1	0	0		6

HANCOCK COUNTY TRAILS PLAN

FINAL PLAN

TIER CRITERIA AND PRIORITY ROUTE MAP

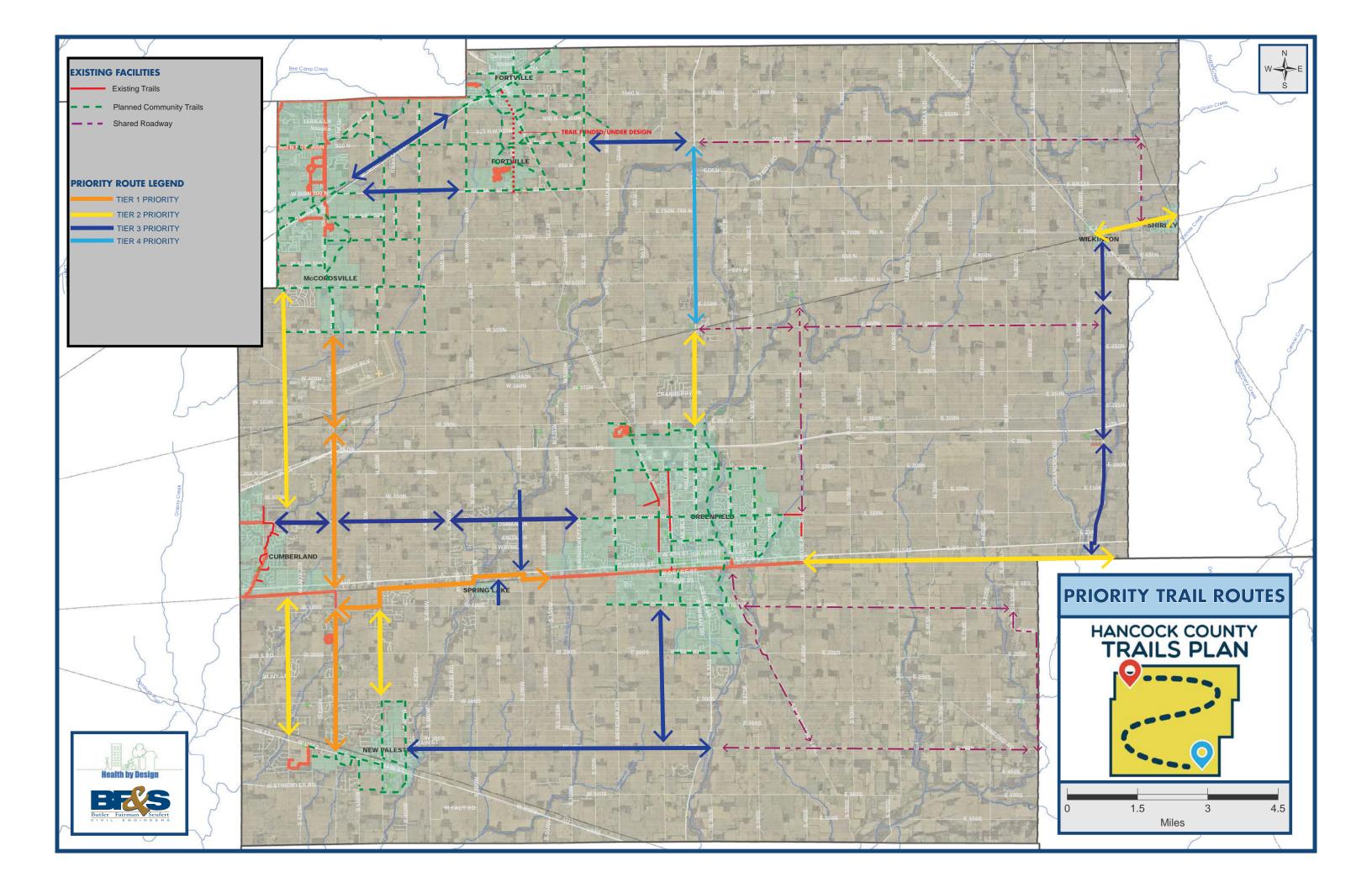
Tier 1 is the highest priority and will require acquiring additional right-of-way to complete the routes. A score of 8-12 on the priority route scoring table will be considered a tier 1 route.

Tier 2 is the second highest priority and right-of-way will need to be passively pursued to complete the routes. A score of 4-7 on the priority route scoring table will be considered a tier 2 route.

Tier 3 is the second lowest priority and right-of-way will not be pursued at this time. Right-of-way will need to come through future development. A score of 2-3 on the priority route scoring table will be considered a tier 3 route.

Tier 4 is the lowest priority route and is targeted for completion after all other tiers. Right of way will not be actively pursued. A score of 0-1 on the priority route scoring table will be considered a tier 4 route.

See the next page for the Priority Route Map.









BIKE FACILITY TYPES AND STANDARDS

All long term plans are meant to be adaptable to new information. This one should be reviewed at regular intervals to see if any standards have changed. At the time this document was created there were several guidelines that apply, including The 2012 American Association of State Highway and Transportation Officials Guide for the Development of Bicycle Facilities (AASHTO), and The National Association of City Transportation Officials Urban Bikeway Design Guide (NACTO). It is recommended that these guidelines as well as the standards outlined below be followed unless new standards or information become available.

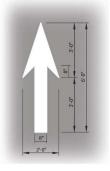
BIKE LANE WIDTH

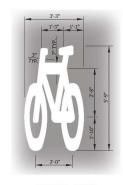
Both NACTO and AASHTO recommend that the minimum width of a bike lane shall be 4 feet where there is a clear graded shoulder for recovery. The consultant team would further recommend that the clear graded shoulder be at least 5 feet wide before any drop off greater than 2 feet and that the closest vertical object be at least 2 feet from the edge of the bike lane. A bike lane shall have a minimum width of 4.5 feet next to a straight curb and only for short distances. The standard width of bike lane should be 5 feet or wider where there is a curb present and there is no on street parking. Where on street parking is adjacent to the bike lane, then the width of the lane shall be 6 feet minimum to allow for cars to open there doors into the bike lane without conflict. If possible, where parking is adjacent to the bike lane, then a 7 feet lane should be installed. Bike lanes shall be delineated from vehicular lanes by a solid white 6 inch stripe and between adjacent parking by a 4 inch solid white stripe.



97 00 00

BIKE & ARROW DETAIL





BIKE LANE ARROW

BIKE LANE SYMBOL

BIKE LANE MARKING AND SIGNAGE

Bike lane markings shall consist of a bicycle symbol and an arrow placed together in the center of the lane. MUTCD sign R3-17 will also be used in conjunction with these markings. The bicycle symbol shall be placed so that it is the first symbol to be seen followed by the arrow. Bike lane markings and signage shall be placed at the start of each bike lane, after an intersection, after a bike path crossing, and after a major approach. Bike lane markings should be placed no more than a 1000 feet apart in rural sections and no more than 350 feet apart in urban sections. Signs can be placed further apart in between intersections and can be placed every other occurrence of placing the bike lane markings. See illustrations to the left for more information on standard sizes. Signs should also be placed warning users of a bike lane ending and when the bike lane continues on the other side of an intersection with a supplemental "AHEAD" plaque. Bike lanes are appropriate on roadway with speeds under 45 mph.







SHARROW SYMBOL

SHARROW CHEVRONS



MODIFIED SHARROW SYMBOL

SHARED ROADWAY MARKING AND SIGNAGE

Markings shall consist of a bicycle symbol and chevrons placed together to create a "Sharrow". Sharrows shall be placed in the center of the lane to indicate where the bicyclist should ride. MUTCD signs W11-1 (Bike Symbol) with W16-1P (Share the Road) will also be used in conjunction with these markings. The bicycle symbol shall be placed so that it is the first symbol to be seen followed by the chevrons. Bike lane markings and signage shall be placed at the start of each shared roadway, after an intersection, after a bike path crossing, and after a major approach. Markings should be placed no more than 250 feet apart on low volume roads and no more than 100 feet apart in urban sections.

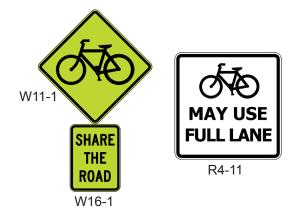
For wayfinding purposes, the orientation of the chevron in the sharrow symbol marking may be adjusted to direct bicyclists along discontinuous routes.



Signs can be placed further apart in between intersections and can be placed every other occurrence of placing the bike lane markings. Signs should also be placed warning users of the shared roadway ending.

On roadways where vehicles and bikes share the same route, alternate signs "W11-1" and "W16-1" with sign "R4-11." This will bring extra attention to the vehicle that cyclist has the right to use the entire width of the travel lane. Use sign "R4-11" to indicate where bikes merge into traffic when a designated bike lane comes to an end. See illustrations to the left for standards.

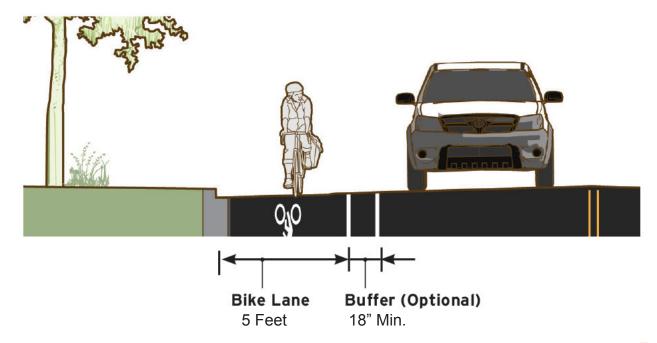
At non-signalized roadway intersections where a non bike and pedestrian route crosses with a designated bike and pedestrian route, place the "2-Way Crossing" sign at either side of that intersection. Additionally, place the "2-Way Crossing" sign at the exit of commercial drives if it crosses with a shared-use path.



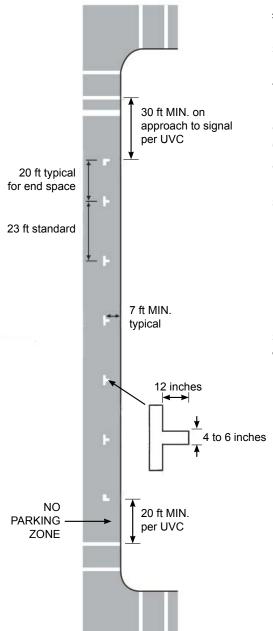


PROTECTED BIKE LANE

A protected bike lane is a conventional bike lane paired with a designated buffer space separating the bicycle lane from the adjacent motorized vehicle lane. The buffer shall be marked with 2 solid white lines and shall be 18" wide minimum. Where the buffer width is 3 feet or wider and diagonal hatching shall be used. For greater separation and protection a tubular lane marker can be added to the buffer area.







SHARED ROADWAY ROUTES WITH MARKED AUTOMOBILE PARKING

Marking automobile parking along shared roadway routes has several safety functions for bicyclists and pedestrians. For bicyclists it better defines the travel lane for vehicles and reduces the perceived lane width even when parked vehicles are not present. This has the effect of traffic calming on the route. In areas where the parking is not heavily used, the parking area can be used as a refuge for more inexperienced cyclists as long as they do not have to weave in and out of the travel lane. For pedestrians it moves the travel way further from the walking space and provides a greater level of comfort.

Parking spaces should be marked based upon the 2011 Indiana Manual for Uniform Traffic Control Devices. The marked parallel parking space shall typically be 8 feet wide by 23 feet long. In certain circumstances on low volume roadways it may be possible to reduce the width of the space to 7 feet. Each space shall be denoted by two solid white transverse stripes 6 inches wide in the configuration of a "T" or "tick" (see illustration).



CONFLICT ZONE MARKINGS

Vehicular crossings of bicycle facilities can happen at intersections and at private drives or entrances. Care must be taken by both bike and vehicles to watch out for one another in these transition zones. Marking these crossings to bring attention to these conflict areas can be helpful. Several options are available for marking these area:

- An epoxy-modified, acrylic, waterborne coating has been successfully used for bike lanes. There are several colors available and selection should be based upon the color choice that provides the most contrast and matches with the amenities/ color scheme selected along that particular route.
- 2. Cabot Deck Stain is another option that might be considered on a trial basis. This coating has been used by the City of Portland, Oregon, to color neighborhood road intersections with less than 2,500 VPD.



Example of Epoxy Bike Coating on Asphalt

BICYCLE FRIENDLY CASTINGS

Bicycle friendly castings for drainage inlets are necessary where bicycle facilities are present. It is important to make sure that a bicycle tire will not fit into the grate opening and cause a bicycle user to be thrown from the bike causing injury.

The gap between the drainage grate and its frame should be 1 inch or less. Several casting types are available. The most versatile is the octagon style.



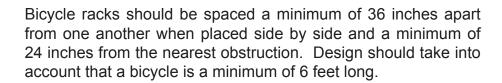




BICYCLE FACILITY AMENITIES:

BICYCLE PARKING

Bicycle Parking should follow the Association of Pedestrian and Bicycle Professionals (APBP) Bicycle Parking Guidelines 2nd Edition. At a minimum bicycle parking should offer a rack that supports the bicycle in at least two spaces, allows locking the frame and at least one wheel with a "U-Lock", resists rusting, resists cutting, resists bending, and is securely anchored to the ground. An example of a rack meeting this criteria would be a "U-rack". The rack should be coated with powder coating or thermoplastic to reduce maintenance. Racks that only support the bike by the front wheel should not be used.



Further considerations should be made for bicycle parking that is intended to be for longer than 2 hours. Examples are areas where a considerable number of people who use the parking for commuting. Bicycle parking that is intended for longer than 2 hours should provide shelter or enclosure, be as close as possible to building fronts and in a secure location with active surveillance. It might even be wise to consider bicycle lockers or a supervised area.









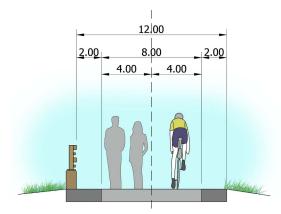




Shared-Use Path Clear Creek Trail, Bloomington, IN

MULTI-USE TRAIL TYPE

It is recommended that each multi-use trail be universally accessible. For the purposes of this plan a multi-use trail is the same as a shared-use path. The American Association of State Highway and Transportation Officials (AASHTO) Guide for the Development of Bicycle Facilities (2012) and Chapter 51 of the Indiana Department of Transportation (INDOT) Design Manual defines a shared-use path as an off-road, two-way facility designed for use by bicyclists, in-line skaters, wheelchair users, and pedestrians on exclusive right-of-way with minimal cross flow by motor vehicles. This means that the paths will have to be wide enough to accommodate two way travel for each type of use. In order to allow accessibility to each use, the path's surface must be adequate and slopes must follow guidelines developed by the US Access Board or regulations from the US Department of Justice. At the time this document was created there were several guidelines that apply: 1) Guidelines for Shared Use Paths; 2) Guidelines for Outdoor Developed Areas; and 3) Guidelines for Pedestrian Facilities in the Public Rightof-Ways. Although INDOT and AASHTO regulations may not be required for all shared-use paths, it is recommended that these quidelines be followed on all paths applications.



Typical 8' Wide Shared Use Path Cross Section

SHARED-USE WIDTH

AASHTO recommends a minimum width of 10 feet for shareduse paths, with 2 foot wide graded shoulders on either side of the path. However, when a higher number of users are anticipated, at least a 12 foot wide trail with shoulders should be employed. This allows for two 6 foot wide lanes that will accommodate several different types of users.

Therefore, the design team recommends using a 10 foot wide path (minimum) with 2 foot grass shoulders wherever possible. Only where absolutely necessary should an 8 foot path with shoulders be implemented. This instance should only happen when the shared-use path is considered a connector path (a path that will have minimal traffic and isn't a through path) and/or when it is not feasible to fit a larger width of path due to right-of-way or other limitations.



SHARED-USE PATH SLOPE

It is important that the path cross slope provide positive drainage, but not create a non-traversable slope for trail users or those in wheel chairs. For this reason all cross slopes shall be no more than 2%. Trail shoulders create recovery areas for bicycle users and should not have cross slopes greater than 4%.

Side slopes beyond the shoulders should not be greater than 4:1. Steeper slopes are non-mowable and therefore create maintenance issues. Additionally, slopes steeper than 3:1 within 5 feet of the trail's edge must be protected.

Longitudinal trail slope should be no greater than 5% in most circumstances. The INDOT Design Manual gives more guidance on when it is permissible to exceed this guideline and appropriate mitigation techniques.



SHARED-USE PATH SURFACE

The primary concern with path surfacing is accommodating a variety of path users and providing accessibility. While crushed stone is less expensive to construct and is more forgiving for runners and walkers, it does not accommodate all users. It is non-traversable for in-line skaters and can be difficult for people in wheel chairs because not all stone paths meet the definition of firm and stable. Asphalt, on the other hand, can accommodate all types of users, and even though initial construction costs are higher, it lasts longer and requires less annual maintenance.

In order to preserve the asphalt, consideration should be given to using an oil sealant right after construction. One popular product is a bio based / soy bean product called RePlay. Regular treatment will help to keep the asphalt from becoming dry and rigid which can lead to failure and cracking. See the Shared-Use Path Maintenance Section for further recommendation.



Shared-Use Path Lafavette. IN



SHARED-USE PATH SUPPORT FACILITIES:

Providing accessibility to all users at key locations throughout the town is important to the success of each shared-use path. Along with accessibility, users require that the path have certain facilities to meet the needs of its use. These support facilities can be broken down into four categories: major trailheads, shared use trail heads, minor trail heads, and community access points. In addition to these public facilities, partnerships should be developed between the community and local businesses to provide secure bicycle parking and other path support facilities as a part of their building or property. This will not only enhance their business but it will also enhance the opportunities given to the path users.



Major Trailhead Example - Erie Lackawanna Trail Griffith, Indiana

Major Trailheads:

Major trailheads provide the greatest amount of amenities to path users and are recognizable points of access. They are like mini-parks alongside the path that may include parking areas, shelters, restrooms, drinking fountains, benches, trash receptacles, picnic tables, bicycle racks, path signage, corridor access, and landscaping.

Due to the scope and type of facilities normally required for a major trailhead, it can be difficult to locate them within the narrow constraints of a shared-use corridor. Typically it is necessary to find parcels of land adjacent to the corridor for development. These can be community-owned, such as parks or street right-of-way, or privately-owned properties that are created and operated with the owner's cooperation. These usually require the development of all new amenities for users' needs.





Major Trailhead Example - C&O Trail Merrillville, Indiana



PPOP

Shared Use Trailhead Example - Twigg Rest Park Terre Haute, Indiana



Shared Use Trailhead Example - Friendship Gardens Plainfield, Indiana



Minor Trailhead Example - Clear Creek Trail Bloomington, Indiana



Shared Use Trailheads:

Shared use trailheads are similar to major trailheads except they share amenities with other existing or potential uses. They are usually city owned and in many cases need only to have their amenities slightly upgraded in order to meet path users' needs. These trailheads may or may not have existing shelters. This trailhead should be easily accessible from the path, and include amenities such as trash receptacles, bicycle racks, and benches.

Minor Trailheads:

Minor trailheads are similar to major trailheads in that they provide amenities to serve shared-use path users, but on a smaller scale. They usually occur more frequently and can be situated within the trail right-of-way. Minor trailheads are located between major trailheads and at certain path intersections. Minor trailheads may provide benches, trash receptacles, bicycle racks, landscaping and signage, but usually will not provide parking.

Community Access Points:

The last type of shared-use path support facility is the community access point, which provides a minimal amount of amenities such as a trail directory sign or wayfinding sign and a connector path. It is the most frequently occurring type of support facility and provides citizens of adjacent neighborhoods access to the path. Community access points simply provide an informal and direct access between community and trail much like the driveway connects to the street.

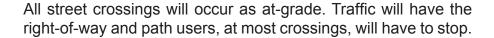
They are important in fostering a community's adoption of the path and getting users to respect the rights of private property owners by establishing designated points of access.

Locations of community access points should be determined in consultation with adjacent landowners and through the selection of logical places to enter the right-of-way from surrounding communities.



SHARED US PATH - STREET INTERSECTION DESIGN:

Intersection design for shared use-paths should be based upon sound "engineering judgment" at each intersection and each should be treated individually as each has unique characteristics. Uniformity in the use of traffic control devices is critical to encourage proper and predictable behavior by shared-use path users. The Manual on Uniform Traffic Control Devices (MUTCD) shall be followed for size, shape, color and placement of signs on both the path and the street. In addition, coordination with the City should ensure the proper design and layout of traffic control devices necessary to warn vehicular traffic on public streets of path crossings. The North American Cities and Towns Organization (NACTO) Urban Bikeway Design Guide can also be consulted for unique situations.



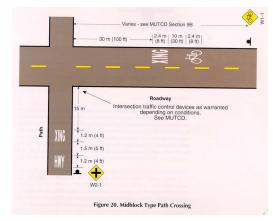
The team devised three different types of street crossing treatments to deal with the various at-grade crossings throughout the city. The following treatments are minimum recommendations.

At-Grade Road Crossing - Level 1:

- Used on local roads with a maximum of two lanes. Speed limit should be under 40 mph and a gap study should be done to assess user risk at the crossing.
- Warning Signs of an upcoming intersection will be placed on the roadway based upon MUTCD standards.
- No Motor Vehicles signs placed facing the street at all path intersections
- Stop sign along the path placed approximately 10 feet from the edge of the street.
- · Crosswalk pavement markings at crossing point.
- "Trail Xing" markings on the roadway.



Example of a Street Crossing on the Monon Trail Carmel, Indiana

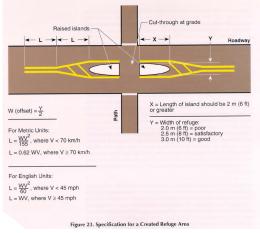


Example of an At-grade Crossing Level 1 - 'Guide for the Development of Bicycle Facilities' - AASHTO 1999





Example of an At-grade Crossing Level 2 - Monon Trail Carmel, Indiana



Example of a Midblock Crossing Level 3 - "Guide for the Development of Bicycle Facilities" -AASHTO 1999



Example of a Speed Table

At-Grade Road Crossing - Level 2:

- Should be considered on all roads with a maximum of two lanes and speed limits over 40 mph or greater. A gap-study should be performed to assess user risk at the crossing
- All treatments of a Level 1 Road Crossing apply
- In addition to Level 1 treatments, at a minimum it is recommended that overhead flashers (or a rapid flashing beacon) with signage be used and that a HAWK signal be used if warranted by traffic conditions. Rapid flashing beacons should preferably be used in combination with a motion activated warning signal. Flashers that are always on tend to be ignored or not noticed by vehicular drivers because they do not necessarily indicate that a path user is in the area.

At Grade Road Crossing - Level 3:

- Should be considered on all roads where there are more than two lanes of travel to cross. A gap study should be performed to assess pedestrian risk.
- All treatments of a Level 2 Crossing apply
- In addition to Level 2 treatments, median refuge areas are recommended that allow path users to cross one direction of traffic at a time (additional street right-of-way may be required)
- If, and ONLY IF, a refuge island isn't feasible, speed tables are a secondary option.

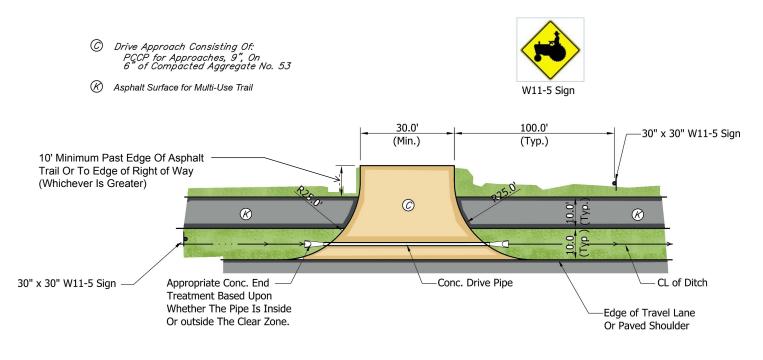


FARM FIELD ACCESS POINTS

Farm field access points may be needed along multi-use trail routes to allow large equipment to safely traverse the trails without causing damage to the asphalt pavement.

The farm field entrance detail below is a minimum guideline and the designer should work with property owners along the route to determine the number and locations of access points required and that each drive is wide enough to accommodate the equipment being used. Signs should also be placed to warn trail users of equipment crossings.

Please reference Indiana Department of Transportation Standard Drawing E610-DRIV-04 for additional guidelines. Final field entrance design and installation is subject to approval by the Hancock County Highway Department.



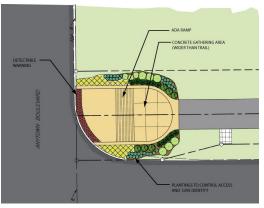
STANDARD FIELD

ENTRANCE

Scale: NTS



Example of a Split Entry for Trail - Munger Trail Lafayette, Indiana



Example of a Concrete Node Entry without Bollards

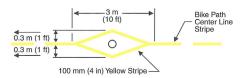


Figure 26. Barrier Post Striping

Example of a Bollard Location and Striping 'Guide for the Development of Bicycle Facilities' AASHTO 1999



Example of a Concrete Node Entry with Bollard

Access of Shared-Use Path At Public Road Crossings

A public road crossing provides an opportunity to bring identity and attention to the path. It also should provide plenty of room for trail users to cross without having conflicts with other users crossing in the opposing direction. Restricting vehicular access without restricting maintenance vehicles can also be a concern. The following is a list of options to consider based upon available right-of-way.

- Option 1: Split entry with a 4 foot wide median. The plantings shall be no taller than 6 inches. This will allow for easy flow of trail traffic, while allowing maintenance vehicles access. See detail at left.
- Option 2: Concrete node without a bollard or central median. This option should be used if the area appears to be too narrow or there is not enough right-of-way for a split entry, and the risk of motor vehicles entering the path is low.
- Option 3: Concrete node with bollard. If the area appears to be too narrow and it is believed that public vehicles might try to access the trail in that area, a bollard should be added. The bollard should be easy to collapse or remove and only used when absolutely necessary, as the bollard itself is an obstacle for path users to negotiate around. See the Site Furnishings section for bollard types.



RAILROAD / SHARED-USE PATH INTERSECTION DESIGN

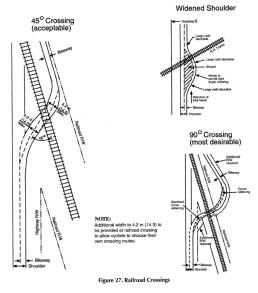
Due to the speed of train travel, sight distance needed to stop a train, and regulatory stipulations, it is recommended that proposed railroad crossings occur at existing road crossings wherever possible. If an existing road crossing is not available then a bridge or tunnel may have to be utilized. Railroad crossings will follow the guidelines established in the Federal Highway Administration's 'Railroad-Highway Grade Crossing Handbook – 2nd Edition FHWA-TS-86-215', AASHTO, the MUTCD, and the requirements and specifications of the individual railroad companies.

It is advised to abide by the following treatments as a minimum for railroad crossings:

- · Arubber panel crossing will be used with an asphalt approach.
- A railroad warning sign shall be placed a minimum of 115 feet from the nearest rail
- A Crossbuck sign will be placed 15 feet from the nearest rail and shall have a sign denoting number of track crossings.
- Where there are existing gate arms, a new pedestrian gate shall be placed if the path must go outside the post.
- A 24-inch stop bar will be placed approximately 15 feet from the nearest rail.
- The shared-use path will have a minimum 45 degree skew from the center line of the rail with 90 degrees being desirable.
- The path's pavement width will be widened to 14 feet.
- Railroad pavement markings will be placed adjacent to the rail warning sign.

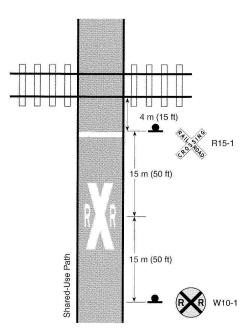


Existing Rubber Panel, Rail Crossing - Amtrak Rail Line Michigan City, Indiana

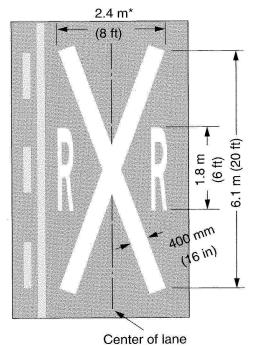


Rail Crossing Standards 'Guide for the Development of Bicycle Facilities' -AASHTO 1999

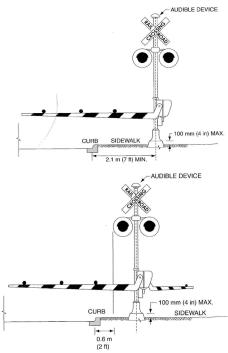




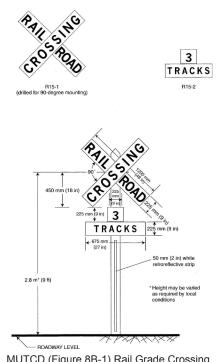
MUTCD (Figure 9B-3) Railroad Sign and Markings Locations for Shared-Use Paths



MUTCD (Figure 8B-3) Pavement Markings for Rail Grade Crossings



MUTCD (Figure 10D-3 and 10D-4) Typical Gate Arm Placement in Relation to Paths



MUTCD (Figure 8B-1) Rail Grade Crossing Crossbuck



SHARED-USE PATH SIGNAGE

There are many different issues to consider in the design of signs for a shared-use path. Signs along the system will need to serve a variety of purposes, including: providing traffic control along the path, alerting users to potential hazards, identifying path access points, providing historic information, providing educational information, indicating path distance, and providing orientation on the path and to surrounding communities.

Signs will need to be located so they are legible to path users and must be constructed in methods and materials that are somewhat vandal resistant and easy to maintain.

The need for different types of signs must be balanced with the idea of creating a visually pleasing landscape in which to use the shared-use path. The paths will feature a system of signage to clearly communicate a variety of messages in a graphically consistent manner. The signage system is divided into the following categories: Shared-Use Path Traffic Signs, Shared-Use Path Identity Signs, Shared-Use Path Guidance and Interpretive Signs, and Mile Markers.



The shared-use path system will be a transportation corridor and, therefore, must have recognizable transportation signs that follow MUTCD guidelines. The shared-use path traffic signs will include regulatory and warning signs, such as: STOP, YIELD, and TRAIL NARROWS signs.

The design of the shared-use path traffic signs should be consistent from path to path Signs can have graphic information on one or both sides, reducing the overall number of signs needed. Signs should be placed 3 feet from the path's edge and be mounted at a height of 5 feet.

If the shared-use path is parallel with a roadway, "Yield To Trail Users" signage should be placed to warn motorists when turning that pedestrians and bicyclists may be crossing the roadway or drive intersection. This provides added safety for both the motorist and pedestrian.



















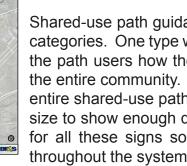


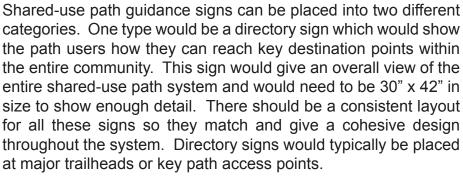
Shared-Use Path Identity Signs:

The shared-use path system will have numerous points of access. It is important that these points of entry be identified for the public in an appropriate and consistent manner. The shared-use path identity sign is intended to serve two functions: identify the main entry points to the path, and establish for the public a consistent and lasting identity for the path. By selecting a consistent treatment for each path it will help the user to know which route they are currently on. Each sign should be designed to incorporate a unique feature of each path. The city park's logo should be incorporated into each sign and the identity sign should follow the same color scheme as the route it is representing. The identity sign should be 9 feet to the bottom of the sign, minimum, to provide visibility and clearance. The signs should be visible by the public at the shared-use path and street intersections and at other significant access points.



Along the path, there should be several different types of signs that provide the user with guidance information such as points of interest, path support facilities, and orientation.









The second type of guidance sign is a wayfinding sign. This type of sign is a map indicating amenities that are within close proximity to your current location on the path. These signs should be located at intersecting routes. A wayfinding sign should be no larger than 24" x 36", but at a scale that shows much more detail than the directory signs. The image located at the top of the next page represents an example of this type of sign.



Interpretive signs are another type of sign that provide educational information to path users and enhance their experience. These signs help to convey the historical, cultural, or ecological significance of certain points along the path. Examples would be the importance of protecting wetlands or water bodies, geological formations unique to the area, or a historically significant feature within the community.

With all these functions, the materials that the signs are made of must be flexible enough to incorporate a variety of graphic information and, yet, be consistent in appearance and presentation. It is recommended that a high pressure laminate be used for the directory, wayfinding, and interpretive signs. High pressure laminates provide high quality graphics and longevity at a reasonable price. A ½ inch thick sign should be employed to avoid the use of a frame. A high pressure laminate sign has a very clean print, has a low replacement cost, and resists shattering, and typically has a warranty period of 10 years. The interpretive signs and guidance signs should be mostly conveyed graphically, with minimal text and at a size that is at a comfortable height.





Mile Markers:

Mile markers provide orientation for the path users and emergency personnel as well as traveled distance along the path. Distance should be marked in quarter-mile intervals or less by transverse pavement markings placed directly on top of the path. Information included on the markers should be distance in miles and each trails logo. The top mile marker image to the right shows a type that is easily readable and reduces conflicts during routine maintenance such as mowing.



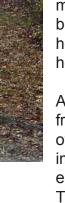




SITE FURNISHINGS

In addition to signage, the design of the shared-use path system will include site furnishings to accommodate the needs of the path users along the length of the entire route. Amenities such as benches, informal seating areas, trash receptacles, bicycle racks, and bollards will be clustered together at major, minor, and shared-use trailheads.

Locations of amenities along paths will depend on the characteristics of each path segment and should be addressed on a case by case situation. The purpose of most shared-use paths is to move people between various locations and for recreation. As such people are less likely to stop in between access points. Benches generally should be located at overlook points along paths where appropriate and where enough right-of-way exists. Paths located in sections of the city where there is a more elderly population or where there might be a need for people to stop more frequently may require benches to be placed in between access points. Paths located near hospitals may need to have benches placed more frequently if the hospital plans to use the route for rehabilitation programs.



Along with path signage, site furniture will be among the most frequently utilized elements along the path, setting the tone for the overall image of the path system in the minds of the users. It is important that design standards for the paths' site furnishings be established to ensure overall consistency of design and path image. The colors should be consistent with the route color scheme that the furnishing is located along. Along with consistency of color, a consistent style of furnishings needs to be established and followed as paths begin to be constructed. Establishing a color and style to use throughout the path it will minimize the amount of cost for the City because replacement parts can be stockpiled for one style of bench instead of five styles. See the following product information for consistency in site furnishings.

For federally funded projects it will be important to use the information in this document to complete the proprietary selection form.



Benches:

- Minimum of 6 feet long
- Color and style should match other amenities along the trail for a cohesive look
- Arm rests should be provided to help those that are more physically challenged
- A backrest should be provided to help those that are more physically challenged
- Powder or plastisol coating should be applied to reduce maintenance
- Option: Center Arm can be provided to keep people from sleeping on the bench
- The bench must have a firm and stable pad underneath it and provide a 3 foot wide area for a wheelchair to sit next to it



Trash Receptacle:

- Color and style shall match benches and other amenities to help with cohesion
- · Minimum size of 32 gallons to reduce emptying
- A flare top lid will help to keep water from collecting in the trash bag
- A liner helps to reduce leaking of refuse on to surrounding surfaces
- · The receptacle must have a firm and stable access path to it

Bicycle Rack:

- 36" Bike Loop
- Color: Color to be based on designated trail color
- Installation: In accordance with manufacturer's instructions
- Style: Loop (supports bicycle in two spots)



Bollard:

- Use: Only in problem areas where motorized vehicle access seems to be more prevalent
- Collapsible is preferred to allow access for maintenance or emergency vehicles
- Color to match other amenities for cohesion







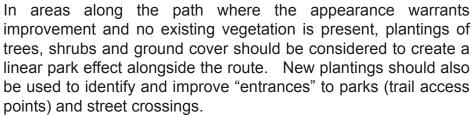
Drinking Fountain:

- Color: To match other amenities for cohesion
- Installation: In accordance with manufacturer's instructions
- Style: Two fountain heights with one fountain ADA accessible and dog bowl fountain
- The fountain must have a firm and stable access path to it



SHARED-USE PATH LANDSCAPING

The shared-use path system, due to its overall length and diverse scenery, may require more landscaping in urban areas and less in rural areas. The presence of mature vegetative cover not only adds to the natural beauty of the path experience, but also minimizes the amount of new landscaping necessary to improve the appearance of the path system and screening of the path from undesirable views and adverse adjacent path conditions.





In addition, plantings should be used to screen certain land uses adjacent to the corridor (such as business service areas and industrial sites) and to separate the path from other improvements within the right-of-way (such as parking lots). Native plant material should be used where possible in an effort to keep landscape maintenance to a minimum and to maximize the ecological benefits of the plantings.



SHARED-USE PATH LIGHTING

The installation of security lighting at trailheads, road crossings, bridges, and other activity areas should be considered if conditions warrant. Should conditions deem lighting to be necessary, there should be a standard lighting choice throughout all of the system.

SHARED-USE PATH MAINTENANCE ISSUES AND SAFETY

Maintenance costs are expected to be a minimum for the first 5-10 years. Costs will vary depending on the amount of paths needing to be maintained and the location of the paths. On a typical milelong trail, maintenance could cost approximately \$3,000 per year. Long term maintenance costs could consist of repairing any asphalt damage. Over 20 years it could be anticipated to spend approximately \$10,000 to \$20,000 on asphalt repair. The city or parks department should have a general maintenance fund set aside for this. Below is a list of general system maintenance items to keep in mind during the upkeep of the shared-use paths:

- Treat any wooden railing at least every 5 years to keep from rotting
- Properly prune trees above trails and shoulders to maintain 12 feet of vertical clearance.
- Properly prune trees and shrubs to maintain at least 5 feet of horizontal clearance from trail pavement edge. Use horticultural accepted pruning techniques and do not "top" trees (do not cut mid branch). Improper pruning can put stress on trees and cause more harm to the public in the long run.
- Properly prune any dead limbs out of trees to protect trail users.
 Remove any existing trees within close proximity that may die over time to protect trail users.
- Perform routine maintenance: mowing, clearing, trimming, vandalism repair, and litter control.
- Edge pavement or shoulder periodically to prevent roots/ vegetation from compromising pavement.
- Seal cracks in pavement every 2 years to prevent debris build up, water from entering base, and continued deterioration. Rubberized sealant is recommended
- Consider using a seal coat every 4 years to arrest deterioration, prevent water filtration, restore oils to upper surface, and prevent loss of fines.









Path maintenance costs could be reduced by utilizing local volunteers and other programs for simple tasks like litter removal and storm clean-up. A full time employee could be the designated volunteer coordinator and help manage resources and efforts. The Cardinal Greenway is a good example of where a volunteer system has been used to reduce maintenance costs and would be a good resource for how to make one successful. Also, youth scouting organizations, community corrections programs, community service programs, and youth programs could be utilized to do these tasks. More stringent repairs, like sealing asphalt and repairing cracks should still be handled with city forces or a contractor.

Another area where volunteers can help reduce cost is through regular patrols of the shared-use path systems. Since many path users will use the system daily for recreational or commuting needs, they can monitor any unwanted behavior simultaneously. Their responsibility would not be to address any unwanted behavior, but rather report it immediately to the proper authorities. In this way, the program can help to reduce the number of law enforcement officers that would need to be dedicated to the trail system and the need to install call boxes along the trails. Examples for places to find local volunteers would be local bicycle clubs, avid cyclists, alternative transportation advocates, etc.

ACCESSIBILITY



As mentioned previously, all new path construction must follow guidelines developed by the US Access Board or regulations from the US Department of Justice. At the time this document was created there were several guidelines that applied: 1) Guidelines for Shared Use Paths; 2) Guidelines for Outdoor Developed Areas; and 3) Guidelines for Pedestrian Facilities in the Public Right-of-Ways.

Some of these accessibility standards have already been addressed in other sections of the design guidelines, but there are a few others to consider:

- Ramps See Guidelines for Pedestrian Facilities in the Public Right-of-Ways
- Detectable warnings See ADA Chapter 7: Communication Elements and Features, Section 705 and Guidelines for Pedestrian Facilities in the Public Right-of-Ways
- Push buttons (activation)/signalization standards See Guidelines for Pedestrian Facilities in the Public Right-of-Ways
- Site amenities See Accessibility Guidelines for Outdoor Developed Areas



PEDESTRIAN FACILITIES

While the plan does not propose specific pedestrian only facilities, the proposed facilities do connect to pedestrian facilities in Wilkinson and Shirley. Below are some basic design treatments that these pedestrian only facilities should follow as outlined in the AASHTO Guide for the Planning, Design, and Operations of Pedestrian Facilities.

- 1. Crosswalks shall have "piano bar" striping to provide more visibility
- 2. Intersection Treatments
 - a. Install refuge islands where the width of the lanes to be crossed is greater than 75 feet or a pedestrian walking at 2.5 feet/second cannot completely cross the street during a signalized walk cycle.
 - b. Consider bump outs at intersections where on-street parking is present to lessen the crossing distance
 - c. Mid-block crossings should consider Hawk signalization
- Street trees should be planted a maximum of 40 feet apart. Street trees should have the following characteristics
 - a. Non-invasive varieties
 - b. Vase shaped as to not impede pedestrian or vehicular traffic
 - c. Maximum height of 40 feet
 - d. Maximum width of 20-25 feet
- 4. Tree grates should be considered to give street trees a maximum root zone, while not impeding the pedestrian walking area. This will help to cut down on tree roots heaving the existing walks as well
- 5. Install a downtown pedestrian support facility including the following:
 - a. Benches for resting
 - b. Trash receptacles
 - c. Trees for shade
 - d. Pedestrian directory signs
 - e. Drinking fountain
 - f. Pet waste disposal
 - g. Bike racks
 - h. Public art
- 6. Countdown crosswalk signals with auditory warning
- 7. More trash receptacles
- 8. More benches for resting
 - a. Benches should have arm rests and back rests to help those people that are more physically challenged



BICYCLE AND PEDESTRIAN PROGRAMS

Moving Hancock County into a bicycle and pedestrian friendly community will need to be supported through programs and policies. Programs will be used to support and continue efforts in making the County safe for all non-motorized modes of transportation. The programs and policies for this plan will be based upon Education, Engineering, Encouragement, Evaluation, and Enforcement.

Each strategy is presented in a table format. The key for the programs and policies table is located below.

		Кеу
Priority	High (H)	These strategies need to happen first (before others), are urgent, or are high-impact
	Medium (M)	These strategies are important, but may require planning and capacity-building
	Low (L)	These strategies are long-term or will have lesser impact
Partners	, ,	encies and community stakeholders have a role in improving ing safety. Identified partners include:
	HC	Hancock County
	TC	Town of Cumberland
	TF	Town of Fortville
	CG	City of Greenfield
	TM	Town of McCordsville
	TN	Town of New Palestine
	TS	Town of Shirley
	TW	Town of Wilkinson
	НН	Hancock Health
	HCT	Hancock County Tourism and Visitors Center
	НСС	Hancock County Community Foundation
	PT	Pennsy Trails of Hancock County, Inc.
	LLE	Local Law Enforcement
Timeline	Short-term (S)	These strategies will take up to three years
	Mid-term (M)	These strategies will take four to seven years
	Long-term (L)	These strategies will take more than seven years
Cost	\$	These strategies are low-cost and can be implemented with relative ease
	\$\$	These strategies need funding beyond what is readily available through jurisdictions and partners
	\$\$\$	These strategies require capital funding or significant, coordinated fund development



Education

The education component of the plan addresses knowledge and skills-based information and training for people of all ages and abilities. At the community level, this work begins with bicycle and pedestrian safety education as a routine part of school-based curricula. Community organizations, businesses, and other partners can offer options for older youth and adults, by hosting lunch and learn events, sponsoring walks, or offering on-bike training opportunities.

It is also vital that motorists, bicyclists, and pedestrians are aware of their rights and responsibilities on the road, which can be accomplished through public outreach and education campaigns that promote shared responsibility for safety. Driver education and awareness can and should be elevated through targeted outreach mechanisms, such as formal inclusion on BMV tests and registration materials; partnerships with the American Automobile Association (AAA) and other motor clubs; roadside or parking area message boards; and other everyday venues such as businesses and community organizations.















EDU - 1. Strategy: Conduct a "Share the Road" campaign through various means				
	 Establish messa 	Establish messages and information to be shared		
A ativitia a a a d Ta alva	 Create and prov 	Create and provide educational materials (see table below)		
Activities and Tasks	 Distribute infor 	mation through commu	nity partners	
Reach motorists through car dealerships, repair shops, e				
	 What materials 	What materials were developed?		
Evaluation Examples	 How many peo 	How many people were reached?		
	 How many part 	ners participated?		
Priority	Partners Timeline Cost			
Н	HC, TC, TF, CG, TM,	S	\$\$	
	TN, TS, TW, HH, PT,			
	LLE			

Resources

Education Campaigns - Pedestrian and Bicycle Information Center:

http://www.pedbikeinfo.org/programs/educa-tion_campaigns.cfm

Street Smart: http://www.bestreetsmart.net/

Pedestrian and Bicycle Safety Education and Outreach - Federal Highway Administration:

https://safety.fhwa.dot.gov/ped_bike/education/

EDU -2. Strategy: Conduct basic biking and walking skills classes for students in schools			
Activities and Tasks	 Identify or develop resources and materials (curricula, lesson plans, presentations, etc.) Deliver walking and bicycling skills classes within the school setting Provide materials on walking and biking safety to adults (staff, parents, etc.) 		
Evaluation Examples	How many students received training?How many people were reached?		
Priority	Partners Timeline Cost		
Н	HC, TC, TF, CG, TM, TN, TS, TW, HH	S	\$\$
Resources			

National Center for Safe Routes to School: www.saferoutesinfo.org

Safe Routes to School National Partnership: http://www.saferoutespartnership.org/

Bikeology Curriculum and Parent Guide – SHAPE America:

http://www.shapeamerica.org/publications/resources/teachingtools/qualitype/bicycle_curriculum.cfm



EDU-3. Strategy: Provide "share the road" training to county/city/town staff, school bus				
	operators, and o	ther professional driver	'S	
• Train professional drivers, particularly those of large vehicles (school bus, transit, delivery, and other commercial trucks)				
	 Partner with dr 	iver training schools and	d instructors	
Evaluation Examples	Evaluation ExamplesHow many classes were taught?How many people were trained?			
Priority	Partners	Timeline	Cost	
,	,			
Н	H			
TN, TS, TW				
Resources				

Large Vehicle Urban Driving Safety Program - San Francisco Municipal Transportation Agency: https://www.sfmta.com/projects-planning/projects/large-vehicle-urban-driving-safety-program

EDU-4. Strategy: Establish and maintain a website to distribute and gather information on				
		trails		
 Determine responsible group for website 				
Activities and Tasks	Develop website content			
	 Promote websit 	te		
Fundamentan Fundamentan	Was a website created?			
Evaluation Examples	 How many visite 	ors to the website?		
Priority	Partners	Timeline	Cost	
Н	HC, TC, TF, CG, TM,	S	\$\$	
TN, TS, TW, HT				
Resources				
Fort Wayne Trails:				

EDU -5. Strategy: Host bicycle maintenance classes for children and adults				
	 Identify partner experts 	rs from bike shops or ot	her bike maintenance	
Activities and Tasks	 Develop or iden 	ntify resources and mate	erials	
	Deliver bicycle maintenance classes in a variety of settings,			
	such as through schools or parks and recreation departments			
Evaluation Examples	How many classes were taught?			
Evaluation Examples	 How many peop 	How many people were trained?		
Priority	Partners	Partners Timeline Cost		
M	M HC, TC, TF, CG, TM, S \$\$			
TN, TS, TW, HH				
Resources				
Adult Classes – Cascade Bicycle Club: https://www.cascade.org/learn/adult-classes				



EDU-6. Strategy: Offer basic adult cycling skills classes			
Activities and Tasks	 Deliver bicycling skills classes Certify community-based League of American Bicyclist Cycling Instructors (LCI) 		
Evaluation Examples	 How many trainings were conducted? How many people were trained? How many LCIs are in the county? 		
Priority	Partners Timeline Cost		
M	HC, TC, TF, CG, TM, TN, TS, TW, HH	S	\$\$

Resources

How to Educate Pedestrians and Bicyclists - Pedestrian and Bicycle Information Center:

http://www.pedbikeinfo.org/programs/education.cfm

Smart Cycling - League of American Bicyclists: http://bikeleague.org/ridesmart

League Cycling Instructors (LCIs) – League of American Bicyclists:

http://bikeleague.org/content/become-instructor

EDU-7. Strategy: Provide routine bicycle skills and in-traffic cycling courses to city planners				
	and	engineers		
	 Identify a skilled cycling instructor, preferably a League 			
A ativities and Tasks	Certified Instructor (LCI)			
Activities and Tasks	Identify or develop resources and materials			
	Deliver cycling classes			
Fuel vetien Evenenies	How many people were trained?			
Evaluation Examples How many communities par		munities participated?		
Priority	Partners Timeline Cost			
M	HC, TC, TF, CG, TM,	S	\$\$	
TN, TS, TW				
Descursos				

Resources

Smart Cycling – League of American Bicyclists: http://bikeleague.org/ridesmart

League Cycling Instructors (LCIs) – League of American Bicyclists:

http://bikeleague.org/content/become-instructor



EDU-8. Strategy: Offer advanced cycling training, i.e., traffic skills training, for adults				
 Deliver bicycling skills classes 				
Activities and Tasks	Certify community-based League of American Bicyclist Cycling			
	Instructors (LCI)	Instructors (LCI)		
	How many trainings were conducted?			
Evaluation Examples	Evaluation Examples • How many people were trained?			
	How many LCIs are in the county?			
Priority	Partners Timeline Cost			
M	HC, TC, TF, CG, TM, S \$\$		\$\$	
	TN, TS, TW, HH			

Resources

How to Educate Pedestrians and Bicyclists - Pedestrian and Bicycle Information Center:

http://www.pedbikeinfo.org/programs/education.cfm

Smart Cycling - League of American Bicyclists: http://bikeleague.org/ridesmart

League Cycling Instructors (LCIs) – League of American Bicyclists:

http://bikeleague.org/content/become-instructor

EDU-9. Strategy: Create walking and bicycling street-teams to provide education at events or along existing trails				
 Provide safety information Activities and Tasks Distribute materials, lights, stickers, etc. Celebrate active transportation and safety 				
Evaluation Examples	How many events were attended?How many materials were distributed?			
Priority	Partners	Timeline	Cost	
M HC, TC, TF, CG, TM, S \$\$ TN, TS, TW, HH, HCT, PT			\$\$	
Resources				

Bicycling Ambassadors – Chicago Complete Streets:

http://chicagocompletestreets.org/safety/education/

Bike Walk Ambassadors - Bike Walk Nashville:

https://www.walkbikenashville.org/ambassadors

7-104



EDU-10. Strategy: Create a ticket diversion program that offers education on sharing the					
	road and bicycle/pedestrian laws				
Activities and Tasks • Work with law enforcement officers to establish guidelines					
Evaluation Examples	for programHow many people participated in the diversion program?				
Priority	Partners Timeline Cost				
L	HC, TC, TF, CG, TM, S \$\$				
TN, TS, TW, LLE					
Resources					
Bicycle/Pedestrian Safe	ety Diversion Program –	Pima County: http://ww	w.ezazbikeped.com		

EDU-11.Strategy: Hold bicycle commuting workshops for those interested in biking to work				
	Work with employers in the county to identify needs			
Activities and Tasks	Develop resources and materials			
	 Deliver bicycle of 	commuting workshops		
	 How many work 	kshops were held?		
Evaluation Examples	Evaluation Examples • How many people attended workshops?			
	 How many people are commuting by bike? 			
Priority	Partners	Partners Timeline Cost		
L	HC, TC, TF, CG, TM,	S	\$\$	
TN, TS, TW, HH				
Resources				
Bicycle Commuting Workshops – UC Santa Cruz:				
https://projectclearing	house.ucsc.edu/bicycle-	commuting-workshops		



Engineering

Engineering strategies create the built environment that makes biking and walking safe, convenient, and comfortable. This starts with establishing design standards and training public agency staff on best practices in bicycle and pedestrian infrastructure design. The adoption of Complete Streets policies in the county and each community will ensure that bicycle and pedestrian accommodations are considered on every roadway project. These steps will ensure that bicyclists and pedestrians become an integral part of the transportation system moving forward.















בואט-1. Strategy: Establish or adopt street design standards for bicycle and pedestrian					
	facilities				
 Review current design standards, tools and practices Research available design resources, guidance 			•		
Activities and Tasks	 Adapt existing standards or develop new standards Adopt standards for use 				
Evaluation Examples	 How many updates to ordinances and planning documents occurred? 				
Priority	Partners Timeline Cost				
H HC, TC, TF, CG, TM, M \$ TN, TS, TW					
Resources					

Accommodating Bicycle and Pedestrian Travel: A Recommended Approach – Federal Highway Administration:

http://www.fhwa.dot.gov/environment/bicycle_pedestrian/guidance/design.cfm

Small Town and Rural Multimodal Networks – Federal Highway Administration:

https://www.fhwa.dot.gov/environment/bicycle_pedestrian/publications/small_towns/fhwahep17024_lg.pdf

Urban Bikeway Design Guide – National Association of City Transportation Officials (NACTO): http://nacto.org/publication/urban-bikeway-design-guide/

Urban Street Design Guide – NACTO: http://nacto.org/publication/urban-street-design-guide/

ENG-2. Strategy: Establish dedicated funding for bicycle and pedestrian projects, including					
	non-infrastructure activities				
 Identify and/or commit new revenue sources 					
Activities and Tasks	 Develop sidewalk cost-sharing tools 				
Activities and Tasks	 Establish a side 	walk revolving loan fund	I		
	Establish a maintenance fund				
Evaluation Examples	How much funding was dedicated?				
Priority	Partners	Timeline	Cost		
Н	HC, TC, TF, CG, TM,	M	\$\$\$		
	TN, TS, TW, HH, HCC				
Resources					
How Do We Pay for Sidewalks (and Other Infrastructure)? – Mark Fenton:					
www.markfenton.com	/resources/Side- walkFu	ndingSummryFenton.pd	<u>lf</u>		

Maps & Tools – Transportation for America: http://t4america.org/maps-tools/



ENG-3. Strategy: Update zoning ordinances, including, but not limited to: development
standards, bicycle parking, sidewalk/ADA improvements, sidewalk clearance (snow,
vegetation, debris)

vegetation, desiris/				
Activities and Tasks	 Review existing 	 Review existing zoning ordinances 		
	Research best practices, guidance, model language			
	 Develop new/updated language, policies 			
	 Adopt new/updated ordinances 			
Evaluation Examples	How many zoning ordinances were updated?			
Priority	Partners	Timeline	Cost	
Н	HC, TC, TF, CG, TM,	M	\$\$	
	TN, TS, TW			

Resources

Pedestrian Friendly Code Directory - Change Lab Solutions:

http://www.changelabsolutions.org/publications/pfc-directory

Getting the Wheels Rolling: A Guide to Using Policy to Create Bicycle Friendly Communities – Change Lab Solutions:

http://www.changelabsolutions.org/sites/default/files/Getting the Wheels Rolling Toolkit-FINAL 20130823 0.pdf

Planning and Zoning for Health in the Built Environment – American Planning Association:

https://planning-org-up-loaded-media.s3.amazonaws.com/document/EIP38.pdf

ENG-4. Strategy: Adopt Complete Streets policies				
 Hold partner and community conversations 				
	 Research Comp 	Research Complete Streets policies, including model language		
Activities and Tasks	Develop model language			
	Secure commitment from elected officials			
	Adopt ordinances			
Were Complete Streets policies adopted?			d?	
Evaluation Examples	What implementation measures will be evaluated?			
Priority	Partners Timeline Cost		Cost	
Н	HC, TC, TF, CG, TM,	S	\$	
	TN, TS, TW			

Resources

National Complete Streets Coalition: http://completestreets.com/

Indiana Complete Streets Coalition:

http://healthbydesignonline.org/IndianaCompleteStreetsCampaign.html

The Best Complete Streets Initiatives of 2017 – National Complete Streets Coalition:

https://smartgrowthamerica.org/resources/best-complete-streets-initiatives-2017/



ENG-5. Strategy: Establish a wayfinding system for biking and walking				
	 Research wayfinding options, messages 			
Activities and Tasks	Identify and prioritize locations			
	Fund system Implement system			
Evaluation Examples	 How many wayfinding signs were installed? 			
Priority	Partners Timeline Cost			
Н	HC, TC, TF, CG, TM,	M	\$\$	
	TN, TS, TW, HCT			

Resources

Bike Route Wayfinding Signage and Markings System – National Association of

Transportation Officials: http://nacto.org/publication/urban-bikeway-design-guide/bikeway-signing-marking/bike-route-wayfinding-signage-and-markings-system/

Bicycle Wayfinding – Pedestrian and Bicycle Information Center:

http://www.pedbikeinfo.org/planning/facilities bike wayfinding.cfm

Pathways to Better Community Wayfinding – CDC Healthy Aging Research Network:

http://www.aarp.org/content/dam/aarp/livable-communities/documents-

2014/Pathways%20to%20Better%20Community%20Wayfinding-AARP.pdf

Walk Your City: https://walkyourcity.org

ENG-6. Strategy: Improve communication and coordination within and across public agencies and departments, including, but not limited to: municipal departments, public boards, INDOT, utility providers, etc., for purposes of building and enhancing trails				
Activities and Tasks	Identify all relevant groups, stakeholders Convene meetings Identify issues Establish processes, systems for communication and coordination			
Evaluation Examples	How many meetings were held?How many agencies and departments participated?			
Priority	Partners Timeline Cost			
М	HC, TC, TF, CG, TM, TN, TS, TW	S	\$	

Guide to Successful Local Government Collaboration in America's Regions – The National League of Cities:

http://icma.org/en/icma/knowledge network/documents/kn/Document/301761/Guide to Successful Local Government Collaboration in Americas Regions

Resources

Best Practices and Leading Practices in Collaboration – US Government Accountability Office: http://www.gao.gov/key_issues/leading_practices_collaboration/issue_summary

Connecting State and Local Government: Collaboration through Trust and Leadership – National Association of State Chief Information Officers:

http://www.nascio.org/Portals/0/Publications/Documents/NASCIO-

Cross%20BoundaryNov2007.pdf



ENG-7. Strategy: Create a Complete Streets cnecklist to ensure policy standards are met				
Activities and Tasks	 Review Complete Streets policy language once adopted Identify systems and procedures impacted Establish checklist for decision-making, project management Assign staff responsibility for implementation Offer public accountability/ transparency 			
Evaluation Examples	Was a checklist created?			
Priority	Partners Timeline Cost			
M HC, TC, TF, CG, TM, S \$ TN, TS, TW			\$	
Resources				

Indiana Complete Streets Campaign:

http://healthbydesignonline.org/IndianaCompleteStreetsCampaign.html

Complete Streets Implementation – National Complete Streets Coalition:

https://smartgrowthamerica.org/program/national-complete-streets-coalition/completestreets-implementation/

Complete Streets Checklist - City of Seattle:

http://www.seattle.gov/Documents/Departments/SDOT/PlanningProgram/CompSt Checklist .pdf

ENG-8. Strategy: Establish and follow preferred construction management practices, including, but not limited to: ensuring maintenance of pedestrian and bicycle traffic during construction and inspection of projects to ensure design and construction standards are met				
Research standards from other communities				
Activities and Tasks	Develop construction standardsAdopt construction practices into appropriate code(s)			
 Develop system to ensure standards are being followed 				
Evaluation Examples	Were standards adopted?			
Lvaluation Lxamples	 How many proje 	ects followed standards	,	
Priority	Partners Timeline Cost		Cost	
M	HC, TC, TF, CG, TM,	S	\$	
TN, TS, TW				
Resources				

Accommodating Bicyclists and Pedestrians in Construction Zones – City of Oakland, CA: http://www2.oaklandnet.com/oakca1/groups/pwa/documents/memorandum/oak062315.p df



ENG-9. Strategy: Develop and use an asset management tool (including bicycle and pedestrian infrastructure)				
 Research existing and potential asset management tools and processes Activities and Tasks Select tool and processes to be used Assign staff responsibility for tool use and maintenance Establish baseline information 				
Evaluation Examples	 Was asset mana 	gement tool developed?		
Priority	Partners Timeline Cost		Cost	
M HC, TC, TF, CG, TM, S \$ TN, TS, TW				
Decourses				

Resources

Asset Management – Federal Highway Administration: https://www.fhwa.dot.gov/asset/
Bicycle Paths and Pedestrian Walkways – Asset Management's Best Practices Manual:
http://www.virginiadot.org/programs/resources/Asset Mgmt Best Practices Manual BP 1
2.9.pdf

ENG-1	ENG-10. Strategy: Provide outside training for city planners and public works staff on current			
	bike and pedestrian engineering standards, including AASHTO, MUTCD, and NACTO			
	guides			
		a Idontify training poods		

	 Identify training 	g needs	
Activities and Tasks	Hire appropriate trainer		
	 Hold training class 	asses	
Evaluation Examples	How many people attended training?		
Evaluation Examples	 What percentage of city, town, and county staff was trained? 		
Priority	Partners Timeline Cost		
M	HC, TC, TF, CG, TM,	S	\$\$
	TN, TS, TW		
_			

Resources

Guide for the Development of Bicycle Facilities – AASHTO:

https://bookstore.transportation.org/item_details.aspx?ID=1943

Design Guides – NACTO: https://nacto.org/publications/design-guides/ *MUTCD* – Federal Highway Administration: https://mutcd.fhwa.dot.gov



ENG-11. Strategy: Create an online reporting tool for problem pedestrian and bicycle intersections/areas				
	Research simila	 Research similar reporting tools in other communities 		
Activities and Tasks	 Develop scope 	of work for tool		
Activities and rasks	Create web- an	d/or app-based tool(s)		
	 Implement syst 	 Implement system for addressing issues submitted to tool 		
	Was a tool developed?			
Evaluation Examples	How many peop	ple used the tool?		
	How many issue	es were addressed?		
Priority	Partners	Timeline	Cost	
M	HC, TC, TF, CG, TM, M \$\$			
TN, TS, TW, PT, LLE				
Resources				
Incident Reporting Tool	I – RIDESolutions:			

ENG-12. Strategy: Require project consultants working on bike and pedestrian projects to				
	have approp	oriate qualifications		
Activities and Tasks	Determine appropriate qualifications for bike and pedestria projects s			
	•	ed in scopes of work		
	 Adopt qualifications into appropriate code(s) 			
Evaluation Examples	 Were standards 	created and adopted?		
Priority	Partners	Timeline	Cost	
L	HC, TC, TF, CG, TM,	S	\$	
	TN, TS, TW			
Resources				
Trainings and Workshops – National Association of City Transportation Officials:				
https://nacto.org/train	ing-and-workshops/			

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ENG-13. Strategy: Increase the number of bike parking facilities in the county by 20%				
	Develop inventory of current bike parking facilitiesIdentify needs, locations			
Activities and Tasks	ks • Secure funding			
	 Purchase and in 	stall racks		
	 Create bike parking requirements for new developments 			
Evaluation Examples	How many bike racks were installed?			
Priority	Partners	Timeline	Cost	
L	HC, TC, TF, CG, TM,	S	\$\$	
	TN, TS, TW, HCT			

Resources

Bicycle Parking Guidelines – Association of Bicycle and Pedestrian Professionals:

http://c.ymcdn.com/sites/www.apbp.org/resource/resmgr/Bicycle Parking/EssentialsofBike Parking FINA.pdf

Making a Place for Bicycles: Using Bicycle Parking Laws to Support Health, Business, and the Environment – Change Lab Solutions:

http://www.changelabsolutions.org/sites/default/files/Bike-

Parking FactSheet FINAL 20130904.pdf



Encouragement

Encouragement contributes to a strong active transportation culture by promoting and celebrating walking and biking. This can be achieved through participation in Bike Month activities, Walk/Bike to School Days, organized weekly and/or monthly walks, and promoting walk- and bike-friendly routes and businesses. Investing in public bike sharing systems and internal fleets is another convenient and cost-effective way to encourage people to make short trips by bike.















ENC-1. Strategy: Create bicycle and pedestrian maps				
	 Identify routes 	 Identify routes and destinations to include on map 		
Activities and Tasks	Secure funding			
	Print map and make available on website or app			
	 Maintain and u 	Maintain and update maps		
Evaluation Evamples	How many maps were distributed?How many visits to the map website or app?			
Evaluation Examples				
Priority	Partners Timeline Cost			
Н	HC, TC, TF, CG, TM,	S	\$\$	
	TN, TS, TW, HCT			
Deserves				

Resources

Indy Ride Guide 2.0 - IndyCog: https://indycog.org/indy-ride-guide-20

Minneapolis Walking Routes for Youth – City of Minneapolis:

http://wwwdocs.minneapolismn.gov/walkmap/index.html

Fort Wayne Trails Map: http://fwtrails.org/files/page/FWT010-Trail%20Map%202018-

MAP%20ONLY.pdf

ENC-2. Strategy: Encourage community placemaking initiatives that promote biking and walking				
Activities and Tasks Activities and Tasks				
Activities and rasks	Make neighborhood-scale improvements			
How many activities were held?				
Evaluation Examples	What changes were made?			
	 How many places were made? 			
Priority	Partners Timeline Cost			
Н	HC, TC, TF, CG, TM,	S	\$	
	TN, TS, TW, HCT, HCC			
_ · · · · · · · · · · · · · · · · · · ·				

Resources

What is Placemaking? - Project for Public Spaces:

www.pps.org/reference/what is placemaking/

The Scenic Route: Getting Started with Creative Placemaking and Transportation –

Transportation for America: http://creativeplacemaking.t4america.org

Tactical Urbanism Guide: http://www.tacticalurbanismguide.com

101 Ways you Can Improve your Community – Curbed:

http://www.curbed.com/2016/9/22/13019420/urban-design-community-building-

placemaking



ENC-3. Strategy: Promote biking and walking to community events				
	Encourage travel by walking, biking, or transitOffer incentives			
Activities and Tasks				
	 Provide tempor 	Provide temporary bicycle parking		
Evaluation Evamples	 How many people arrived by walking or biking? 			
Evaluation Examples	 Was bike parkir 	Was bike parking provided?		
Priority	Partners Timeline Cost			
Н	HC, TC, TF, CG, TM, S \$			
TN, TS, TW, HCT				
Resources				

Guide to Organizing a Bicycle Event – League of Michigan Bicyclists:

http://www.lmb.org/index.php?option=com_content&view=article&id=254&Itemid=255 Bike Valet Parking – Bike Collective Wiki:

https://www.bikecollectives.org/wiki/index.php?title=Valet Bike Parking

ENC-4. Strategy: Hold Bike and Walk to School days				
	 Identify schools 	s to host Bike/Walk to Sc	hool Days	
	 Provide materia 	 Provide materials on walking and biking safety to adults (staff, 		
Activities and Tasks	s parents, etc.)			
	Establish 'park'	Establish 'park and walk' or 'remote drop-off' locations		
	Promote Bike/Walk to School Days			
Evaluation Evamples	 How many school 	 How many schools participate in Walk/Bike to School Day? 		
Evaluation Examples	 How many stud 	lents participate in Walk	/Bike to School Day?	
Priority	Partners Timeline Cost			
Н	HC, TC, TF, CG, TM, S \$			
	TN, TS, TW, HH, LLE			
Resources				

National Walk and Bike to School Day – National Center for Safe Routes to School: www.walkbiketoschool.org



ENC-5. Strategy: Promote a county-led casual ride once per year to promote awareness			
	Establish date for ride		
Activities and Tasks	Determine route		
	 Vary route each year to highlight all communities 		
Evaluation Examples	How many people participated in the ride?		
Priority	Partners Timeline Cost		
Н	HC, TC, TF, CG, TM, M \$\$		
	TN, TS, TW, HH		

Resources

Guide to Organizing a Bicycle Event – League of Michigan Bicyclists:

http://www.lmb.org/index.php?option=com_content&view=article&id=254&Itemid=255

Guide to Fundraising Rides – Alliance for Biking & Walking:

http://www.peoplepoweredmovement.org/pdf/RideGuide2ndEdition.pdf

ENC-6. Strategy: Create bicycling and walking clubs for adults			
	Identify leaders for bicycling and walking clubsCreate a schedule for club meetings		
Activities and Tasks			
Hold club walks and rides			
Evaluation Evamples	How many rides or walks were held?		
Evaluation Examples • How many people participated?			
Priority	Partners Timeline Cost		
M	HC, TC, TF, CG, TM,		\$
	TN, TS, TW, HH, HCT,		
	PT		

Resources

Start or Join a Walking Club – American Heart Association:

http://www.heart.org/HEARTORG/HealthyLiving/PhysicalActivity/Walking/Start-or-Join-a-Walking-Club UCM 460019 Article.jsp#.V8SkbTelfkw

Start a Walking Group – Create the Good: http://createthegood.org/toolkit/start-walking-group

Central Indiana Bicycling Association: https://www.cibaride.org



ENC-7. Strategy: Create on-trail programming (scavenger hunts, story walks, etc.) on				
existing trails				
Participate in Bike Month activities				
ACTIVITIES dilu Tasks	 Partner with other community organizations 			
Fugluation Fyamples	How many activities/events were held?			
Evaluation Examples	 How many people participated? 			
Priority	Partners Timeline Cost			
M	HC, TC, TF, CG, TM, S \$			
TN, TS, TW, HCT, PT				
_				

Resources

Guide to Organizing a Bicycle Event – League of Michigan Bicyclists:

http://www.lmb.org/index.php?option=com_content&view=article&id=254&Itemid=255

Guide to Fundraising Rides – Alliance for Biking & Walking:

http://www.peoplepoweredmovement.org/pdf/Ride- Guide2ndEdition.pdf

Programming Archives – Project for Public Spaces: http://www.pps.org/reference/reference-categories/parks-articles/programming/

How Cities Use Parks for Arts and Cultural Programs – American Planning Association:

https://www.planning.org/cityparks/briefingpapers/arts.htm

ENC-8. Strategy: Start a bicycle share program				
	Research bike-share options			
Activities and Tasks	 Identify and approach partners 			
	Fund program Establish program Maintain program			
Evaluation Examples	 How many bike share bikes and/or stations were implemented? How many rides were taken on bike share bikes? 			
Priority	Partners Timeline Cost			
M	HC, TC, TF, CG, TM, M \$\$\$			
	TN, TS, TW, HH, HCC,			
	HCT, PT			
Resources				

The Bike Share Planning Guide — Institute for Transportation and Development Policy: https://www.itdp.org/wp-content/uploads/2014/07/ITDP Bike Share Planning Guide.pdf
Bike Share Station Siting Guide — National Association of City Transportation Officials: https://nacto.org/wp-content/uploads/2016/04/NACTO-Bike-Share-Siting-Guide FINAL.pdf



ENC-9. Strategy: Create bicycling and walking clubs for children			
A chiniki oo ayad Taalya	 Work with schools and other youth-oriented organizations to identify leadership for clubs 		
Activities and Tasks	Create schedule for walking and riding clubs		
	Hold club rides and walks		
Evaluation Examples	 How many rides or walks were held? 		
Lvaluation Examples	 How many people participated? 		
Priority	Partners Timeline Cost		
M	HC, TC, TF, CG, TM, S \$		\$
	TN, TS, TW, HH, HCT,		
	PT		

Resources

Walking Clubs – Fire Up Your Feet: http://fireupyourfeet.org/resources/walking-clubs
Walking Programs – Action for Healthy Kids: http://www.actionforhealthykids.org/tools-for-schools/find-challenges/on-the-playground-challenges/1221-walking-programs

Start a School Walking Program – Advocates for Health in Action:

http://advocatesforhealthinaction.org/wp-

content/uploads/2012/06/Startin a School Walking Program.pdf

ENC-10. Strategy: Start an earn-a-bike program for kids				
 Identify partners for program 				
Activities and Tasks	 Solicit donations of bikes 			
 Develop materials and resources for program 				
Evaluation Examples	How many kids participated?			
Priority	Partners Timeline Cost			
M	HC, TC, TF, CG, TM, M \$\$			
TN, TS, TW				
Resources				

Earn a Bike Program – International Bicycle Fund:

http://www.ibike.org/encouragement/youth.htm

Freewheelin' Community Bikes: https://www.freewheelinbikes.org



ENC-11. Strategy: Hold Bike and Walk to Work Days			
	Partner with employersIdentify dates for Bike and Walk to Work Days		
Activities and Tasks			
Promote events			
 Evaluation Examples How many people participated? How many employers participated? 			
Priority	Partners Timeline Cost		
L	HC, TC, TF, CG, TM, S \$		
	TN, TS, TW		
Resources			
National Bike Month – The League of American Bicyclists: http://bikeleague.org/bikemonth			

ENC-12.Strategy: Celebrate Bike to Work Month			
	 Partner with em 	nployers	
Activities and Tasks	 Partner with local businesses to provide incentives to riders Identify events and activities to celebrate Bike to Work Month 		
How many people participated?			
Evaluation Examples	 How many employers participated? 		
Priority	Partners Timeline Cost		
L	HC, TC, TF, CG, TM, S \$		
TN, TS, TW			
Resources			
National Bike Month – The League of American Bicyclists: http://bikeleague.org/bikemonth			

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ENC-13. Strategy: Work with businesses to establish a bike and/or walk commuter incentive			
	prog	gram	
 Provide worksite-based education and training 			
	Develop a local businesses/restaurant 'frequent		
Activities and Tasks	biker/walker' incentive program		
	Establish employee incentive programs for active		
	transportation		
How many businesses participate?			
Evaluation Examples	aluation ExamplesHow many trainings were conducted?		
Priority	Partners Timeline Cost		
L	HC, TC, TF, CG, TM, TN, S \$		\$
	TS, TW		
Resources			

Bicycle Friendly Districts 2.0 – People Powered Movement:

http://www.peoplepoweredmovement.org/site/images/uploads/Bike Friendly Business Dis tricts Draft 3 (1).pdf

Multi-Component Workplace Supports for Active Commuting – County Health Rankings:

http://www.countyhealthrankings.org/policies/multi-component-workplace-supports-activecommuting

Bicycle Commuter Benefit - League of American Bicyclists:

http://bikeleague.org/content/bicycle-commuter-benefit



Evaluation

Evaluation activities support the monitoring and tracking of plan implementation, examining the successes and challenges of individual activities and the plan overall, and then incorporating lessons-learned in an ongoing way. Performance measures are essential and ensure that plan activities are effectively achieving intended targets and goals.















qu	ıarterly		
 Research purpos 	e, structure, function		
 Secure commitment/ role within city/town/ county 			
Identify and invite committee members			
Hold kick-off meeting			
Meet on ongoing basis			
Was a committee established?			
How often did the committee meet?			
Partners	Partners Timeline Cost		
HC, TC, TF, CG, TM,	HC, TC, TF, CG, TM, S \$		
TN, TS, TW, HH, HCT,			
HCC, PT, LLE			
Resou	rces		
	 Research purpos Secure commitmemore Identify and invitement Hold kick-off memore Meet on ongoing Was a committeement How often did themore Partners HC, TC, TF, CG, TM, TN, TS, TW, HH, HCT, HCC, PT, LLE 	 Research purpose, structure, function Secure commitment/ role within city/to Identify and invite committee members Hold kick-off meeting Meet on ongoing basis Was a committee established? How often did the committee meet? Partners Timeline HC, TC, TF, CG, TM, TN, TS, TW, HH, HCT, 	

EVAL-2. Strategy: Review the Hancock County Trails Plan once per year to update				
Activities and Tasks	Convene Bicycle and Pedestrian Advisory Committee and/or			
Hancock Trails Plan Steering Committee yearly			e yearly	
Evaluation Examples	Were meetings held?			
Priority	Partners Timeline Cost			
Н	HC, TC, TF, CG, TM,	S, ongoing	\$	
	TN, TS, TW, HH, HCT,			
	HCC, PT, LLE			
Resources				
Contact consultant				



EVAL-3. Strategy: Establish an ongoing system to gather public input regarding biking and					
	walking				
 Review questions from Hancock County Trails Plan public 			Trails Plan public		
Activities and Tasks	survey				
Activities and Tasks	Develop new questions as necessary				
	Distribute survey				
Was the survey conducted?					
Evaluation Examples	 What measurable changes occurred? 				
Priority	Partners Timeline Cost				
Н	HC, TC, TF, CG, TM,	M	\$		
	TN, TS, TW				

Resources

Bicycle Account Guidelines: Measuring, tracking, and reporting progress to inspire better

biking in your community – League of American Bicyclists:

https://bikeleague.org/sites/default/files/Bicycle Account Guidelines.pdf

EVAL-4. Strategy: Apply to become a Bicycle Friendly Community (BFC)				
	 Review BFC app 	 Review BFC application, process 		
Activities and Tasks	 Compile data and info Complete applications 			
Activities and rasks	Celebrate and make improvements			
Maintain designation and/or reapply				
Evaluation Evamples	 How many communities applied to become a BFC? 			
Evaluation Examples	 What level designation was awarded? 			
Priority	Partners Timeline Cost			
M	HC, TC, TF, CG, TM, M		\$	
	TN, TS, TW, HCT			
Resources				
Describe a Discribe Edited to Community of American Discribed				

Becoming a Bicycle Friendly Community — League of American Bicyclists:

http://bikeleague.org/content/communities



EVAL-5. Strategy: Apply to become a Walk Friendly Community (WFC)				
Activities and Tasks	 Review WFC ap 	Review WFC application, process		
	 Compile data ar 	 Compile data and info Complete applications 		
Activities and rasks	 Celebrate and make improvements 			
	 Maintain designation and/or reapply 			
Fralishian Francis	 How many communities applied to become a WFC? 			
Evaluation Examples	 What level design 	 What level designation was awarded? 		
Priority	Partners Timeline Cost			
M	HC, TC, TF, CG, TM, M \$			
	TN, TS, TW, HCT			
Resources				
Walk Friendly Communities: www.walkfriendly.org				

EVAL-6. Strategy: Co	nduct pre- and post-eva	aluations of bicycle and	pedestrian projects
Activities and Tasks	 Assemble multi-disciplinary team to conduct evaluations Create standard pre- and post-evaluation documentation Standardize timeline for pre- and post-evaluations Create process to address any issues discovered in post-evaluations 		
Evaluation Examples	 Were evaluations completed? How many issues discovered in post-evaluations were addressed? 		
Priority	Partners Timeline Cost		
М	HC, TC, TF, CG, TM, S \$ TN, TS, TW		
Resources			
	d Bicycle Information Ce fo.org/planning/tools a		



EVAL-7. Strategy: Establish an ongoing bicycle and pedestrian count program				
 Determine count locations 				
Activities and Tasks	Create a count schedule			
Activities and rasks	• Recruit volunteers			
	Hold counts			
How many count locations were established?			shed?	
Evaluation Examples • Where are the count locations?				
Priority	Partners	Timeline	Cost	
M	HC, TC, TF, CG, TM,	M	\$\$	
	TN, TS, TW, PT			

Resources

Counting Bicyclists and Pedestrians to Inform Transportation Planning – Active Living Research: http://activelivingresearch.org/counting-bicyclists-and-pedestrians-inform-transportation-planning

Counts – Pedestrian and Bicycle Information Center:

http://www.pedbikeinfo.org/planning/tools counts.cfm

National Bicycle and Pedestrian Documentation Project: http://bikepeddocumentation.org/

EVAL-8. Strategy: Develop a Safe Routes to School plan					
 Conduct an audit and inventory of existing infrastructure 					
Activities and Tasks		 Collaborate with school leaders, staff, parents, community members Develop a map to identify key routes 			
	 Develo 				
	• Prioriti	Prioritize projects for funding			
	How many audits were completed?				
Evaluation Examples	How m	any scho	ools have a Safe Routes t	o School plan?	
	How m	How many Safe Routes to School projects were funded?			
Priority	Partners Timeline Cost		Cost		
M	HC, TC, TF, C	G, TM,	M	\$\$	
	TN, TS, T	W			
Danasirana					

Resources

National Center for Safe Routes to School: www.saferoutesinfo.org

Indiana Safe Routes to School Partnership: http://healthbydesignonline.org/INSRTS.html

Getting Started Locally – Safe Routes to School National Partnership:

www.saferoutespartnership.org/local/getting-started-locally

Walking and Bicycling Audits – National Center for Safe Routes to School:

guide.saferoutesinfo.org/engineering/walking and bicycling audits.cfm

Indiana Safe Routes to School Guidebook – Indiana State Department of Health:

http://www.in.gov/isdh/files/SRTS Guidebook%202016.pdf



EVAL-9. Strategy: Review and monitor bicycle and pedestrian crash, injury, and fatality data					
annually					
Activities and Tasks	Collaborate with law enforcement officers to develop a				
system to collect crash data					
	 How many crashes involved pedestrians and bicyclists? 				
Evaluation Examples	How many injuries occurred?				
	 How many fatalities occurred? 				
Priority	Partners Timeline Co		Cost		
M	HC, TC, TF, CG, TM,	S	\$		
	TN, TS, TW, HH				

Resources

Working with Law Enforcement Officers – Pedestrian and Bicycle Information Center:

http://www.pedbikeinfo.org/programs/enforcement worklawenforce.cfm

Cyclist Safety Report – City of Boston:

https://www.cityofboston.gov/news/uploads/16776 49 15 27.pdf

Indy Walkways: http://indywalkways.org

EVAL-10. Strategy: Promote Bicycle Friendly Business (BFB) status				
 Review BFB requirements, process 				
	 Identify potentia 	al businesses to apply		
Activities and Tasks	l businesses in process &	preliminary		
	improvements			
	Support and promote BFBs			
Evaluation Evamples	How many businesses are BFBs?			
Evaluation Examples	 What level of BFB are businesses? 			
Priority	Partners	Timeline	Cost	
L	HC, TC, TF, CG, TM,	S	\$	
	TN, TS, TW, HCT			

Resources

Bicycle Friendly Districts 2.0 – People Powered Movement:

http://www.peoplepoweredmovement.org/site/images/uploads/Bike Friendly Business Districts Draft 3 (1).pdf

Bicycle Benefits: http://bb2.bicyclebenefits.org/#/home

Becoming a Bicycle Friendly Business – League of American Bicyclists:

http://bikeleague.org/business



EVAL-11. Strategy: Develop programs and policies to serve traditionally underserved neighborhoods				
Activities and Tasks	 Use data analysis to determine traditionally underserved neighborhoods Engage community to determine needs Incorporate a prioritization method into project selection criteria as appropriate 			
Evaluation Examples	 Were traditionally underserved neighborhoods identified? How many programs and policies specifically targeted these neighborhoods? 			
Priority	Partners Timeline Cost			
L	HC, TC, TF, CG, TM, TN, TS, TW, HCC	S	\$	

Resources

The New Majority: Pedaling towards equity – League of American Bicyclists:

https://bikeleague.org/sites/default/files/equity_report.pdf

Equity – Mobility Lab: https://mobilitylab.org/equity/

	ma	nager		
Determine responsibilities of bicycle and pedestrian programmanager				
Activities and Tasks	Develop job description			
	 Integrate duties into existing position or hire for new position 			
Evaluation Examples	 Was a program m 	anager position establ	ished?	
Priority	Partners	Partners Timeline Cost		
Г	HC, TC, TF, CG, TM,	M	\$\$	
	TN, TS, TW			
Resources				

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EVAL-13. Strategy: Crea	ite a community-wide t	trip-reduction or mode s	hift policy or program	
	 Evaluate curre 	Evaluate current mode share (trips made by biking, walking,		
Asticities and Table	driving)	driving)		
Activities and Tasks	Develop goals for target mode share			
	Create strategi	Create strategies to achieve target mode share goals		
Fugluation Evamples	 Were goals de 	 Were goals developed? 		
Evaluation Examples	 What was the 	What was the change in mode share?		
Priority	Partners	Timeline	Cost	
L	HC, TC, TF, CG, TM,	M	\$	
	TN, TS, TW			
Resources				

Commute Mode Share – US Department of Transportation:

https://www.transportation.gov/mission/health/commute-mode-share

Smart Trips - City of Portland: https://www.portlandoregon.gov/transportation/43801



Enforcement

The enforcement element contributes to the overall safety of the transportation network when laws and regulations are applied fairly and without bias, whether people are walking, biking, riding transit, or driving. Law enforcement officers must understand these laws, know how to enforce them, be empowered to use them, and apply them equitably. A strong relationship between bicycling and pedestrian communities and law enforcement is essential. The active presence and participation of officers on the Advisory Committee will help to ensure this element of plan is implemented.















ENF-1.Strategy: Provide programs that target improved safety, such as helmets, lights, and bike lock giveaways					
	 Partner with law enforcement to create program plan 				
Activities and Tasks	Fundraise to purchase necessary equipment				
	 Determine locations and times for distributions 				
Evaluation Examples	 How many heln 	nets, lights, and bike locl	ks were given away?		
Priority	Partners Timeline Cost				
Н	HC, TC, TF, CG, TM, S \$\$				
	TN, TS, TW, HH, PT,				
	LLE				
Resources					

How to Do a Successful Bike Light Giveaway – League of American Bicyclists:

http://www.bikeleague.org/content/how-do-successful-bike-light-giveaway

Lids for Kids Michigan: http://lidsforkidsmi.org

ENF-2. Strategy: Partner with law enforcement to improve safe biking and walking				
	<u>-</u>	Establish speed-related enforcement in school zones and high-crash areas		
	 Enforce existing law) 			
Activities and Tasks	 Ensure bicycle and pedestrian safety-related violations are recorded 			
	 Conduct high-visibility enforcement activities 			
	Consider how to incorporate bike and ped safety into			
	diversion programs			
	 How many enforcement activities occurred? 			
Fuel vetien Evenenies	 How many bicycle and pedestrian safety-related citations 			
Evaluation Examples	were issued?			
	 How many spee 	 How many speed related citations were issued? 		
Priority	Partners	Timeline	Cost	
Н	HC, TC, TF, CG, TM,	S	\$\$	
	TN, TS, TW, LLE			
Danasara				

Resources

Pedestrian Safety Enforcement Operations: A How-To Guide - National Highway Traffic Safety Administration: https://www.nhtsa.gov/sites/nhtsa.dot.gov/files/812059-

pedestriansafetyenforceoperahowtoguide.pdf

Speed Enforcement in School Zone - Safe Routes to School Online Guide:

http://guide.saferoutesinfo.org/enforcement/speed enforcement in school zone.cfm

Snow Removal Policies – Pedestrian and Bicycle Information Center:

http://www.pedbikeinfo.org/data/faq_details.cfm?id=4125



ENF-3. Strategy: Establish trail safety standards, including guidelines for camera and call					
	box	installation			
	Research best practices in trail safety				
Activities and Tasks	Determine need for cameras and call boxes				
Activities and rasks	 Develop standards for cameras and call boxes to be added as 				
	trails are developed				
Were standards developed?					
• How many cameras and call boxes were installed?					
Priority	Partners Timeline Cost				
Н	HC, TC, TF, CG, TM,	M	\$\$		
	TN, TS, TW, PT, LLE				
Resources					

Safe Trail Forums - American Trails:

https://www.americantrails.org/resources/safety/index.html

ENF-4. Strategy: Designate law officers to be on the Bike and Pedestrian Advisory					
Committee					
Activities and Tasks • Engage with law officers from each community					
Evaluation Examples	Do law officers participate on committee?				
Priority	Partners Timeline Cost				
Н	HC, TC, TF, CG, TM, S \$\$				
TN, TS, TW, LLE					
Pasaurcas					

Resources

Working with Law Enforcement Officers – Pedestrian and Bicycle Information Center: http://www.pedbikeinfo.org/programs/enforcement worklawenforce.cfm

5. Strategy: Establish a three-foot passing law				
	 Develop draft legislation Engage with community and stakeholders to educate on need 			
Activities and Tasks	for three-foot p	for three-foot passing law		
	Introduce to appropriate bodies of government			
	 Develop procedures to enforce law 			
Evaluation Examples	Was a law passed?			
Priority	Partners	Timeline	Cost	
Н	HC, TC, TF, CG, TM,	S	\$	
	TN, TS, TW, LLE			
Descursos				

Resources

Passing Bicyclists Chart – National Conference of State Legislatures:

http://www.ncsl.org/research/transportation/safely-passing-bicyclists.aspx

Model Safe Passing Law – The League of American Bicyclists:

httn://hikalaagua.org/contant/modal_cafa_naccing_law_0



legislation-0

FINAL PLAN: PROGRAMS + POLICIES

ENF-6. Strategy: Remove ordinances that create barriers to biking and walking			
	Review current ordinances that pertain to biking and walking		
Activities and Tasks	 Determine if ordinances create barriers 		
	Repeal and establish new ordinances as necessary		
	Were ordinances reviewed?		
Evaluation Examples	 How many ordinances were repealed? 		
	 How many ordinances were introduced? 		
Priority	Partners	Timeline	Cost
M	HC, TC, TF, CG, TM,	S	\$
	TN, TS, TW, LLE		
Resources			
Model Legislation – Lea	ague of American Bicycli	sts: https://bikeleague.	org/content/model-

7. Strategy: Create a volunteer trail safety patrol			
Determine duties of volunteer trail safety patrol			
Activities and Tasks	Develop job description		
Recruit volunteers			
Evaluation Examples	How many people volunteered?		
Priority	Partners Timeline Cost		
M	HC, TC, TF, CG, TM,	S	\$
	TN, TS, TW, PT, LLE		
Resources			

Greenway Rangers – City of Fort Wayne: http://www.fortwayneparks.org/trails/volunteer-opportunities.html

ENF-8. Strategy: Provide training to officers regarding traffic laws as they apply to pedestrians and bicyclists beyond academy training			
Activities and Tasks	 Identify a skilled cycling instructor, preferably a League Certified Instructor (LCI) Identify or develop resources and materials 		
 Deliver cycling classes Did training occur? 			
Evaluation Examples	 How many officers were trained? 		
Priority	Partners	Timeline	Cost
M	HC, TC, TF, CG, TM,	M	\$\$
	TN, TS, TW, LLE		
Resources			

International Police Mountain Bike Association: http://ipmba.org/

Train Law-Enforcement Officers in Pedestrian Laws and Safety – America Walks:

http://americawalks.org/train-law-enforcement-officers-in-pedestrian-laws-and-safety



ENF-9. Strategy: Establish a multi-disciplinary bicycle and pedestrian crash review team			
Activities and Tasks	 Include law enforcement officers, planners, engineers, public health, and other community partners Convene regularly to review and assess crashes and develop strategies for improvements Conduct field audits Establish systems for communicating crash information among departments/agencies between meetings 		
Evaluation Examples	 Was a team established? Who participates? 		
Priority	Partners Timeline Cost		Cost
L	HC, TC, TF, CG, TM, TN, TS, TW, HH, PT, LLE	S	\$\$
Resources			

Working with Law Enforcement Officers – Pedestrian and Bicycle Information Center: http://www.pedbikeinfo.org/programs/enforcement worklawenforce.cfm
International Police Mountain Bike Association: http://ipmba.org/

ENF-10. Strategy: Have at least 15% of patrol officers regularly on bikes			
A ativities and Tasks	Determine need for patrol officers on bike		
Activities and Tasks	Train officers in cycling safety		
Evaluation Examples	How many officers patrol on bikes?		
Priority	Partners Timeline Cost		Cost
L	HC, TC, TF, CG, TM,	M	\$\$
	TN, TS, TW, LLE		
D			

Resources

Working with Law Enforcement Officers – Pedestrian and Bicycle Information Center: http://www.pedbikeinfo.org/programs/enforcement worklawenforce.cfm
International Police Mountain Bike Association: http://ipmba.org/



There are various sources of funding available for the design, development and construction of bicycle facilities and pedestrian projects. The following is a summary of some of the most often utilized sources at the time this plan was prepared. While some of the funding options do have more over-site and can cause an increase in design and construction costs, they are still viable options that decrease the amount of local money that has to be spent.

TRANSPORTATION ALTERNATIVES PROGRAM (TAP)

The current federal highway bill, Fixing America's Surface Transportation or FAST Act, is a four year bill that will provide transportation funding from December 4, 2015, through the year 2020. The FAST Act Eliminates the MAP-21 Transportation Alternatives Program (TAP) and replaces it with a set-aside of Surface Transportation Block Grant (STBG) program funding for transportation alternatives (TA). These set-aside funds include all projects and activities that were previously eligible under TAP. The national total for TA is \$835 Million per year in 2016 and 2017 and the national total for TA is \$850 Million in years 2018-2020. FHWA administers the TA set-aside identically to funding under the prior TAP. The following discussion is related to all of these programs. Information specific to each program is addressed in later sections.

The Secretary is directed to set aside, for TA, an amount from each State's STBG apportionment such that the total TA for each year is divided among the states based upon each state's proportionate share of FY 2009 TE Funding. Unless the Governor opts out of RTP, the RTP funds are set aside, and the remaining TA funds are divided equally into two categories. The first half is sub-allocated based on population, in which INDOT will distribute half of the TAP funds to communities according to their share of population within the state. These population categories are as follows:

- MPOs with populations greater than 200,000: INDOT will sub-allocate funds to Metropolitan Planning Organizations (MPOs). MPOs will distribute their funds through their own competitive application process.
- Other urbanized and rural areas: FAST Act allows state DOT's to hold a competitive application
 process for communities to compete for these funds. INDOT is currently developing their process,
 including the possibility of sub-allocating to smaller MPOs.

The second half of the remaining TA funds will be distributed state-wide by a competitive application process through INDOT, where population is not considered. Eligible entities include local governments, school districts, tribal governments, and public lands agencies. In FAST Act, the State has the ability to transfer funds both into and out of TAP for other transportation programs

Federal TA funds provide 80% of the costs for preliminary engineering (survey, design, and construction documents), right-of-way (engineering, management, acquisition), construction, and construction supervision. The local agency is required to provide the matching 20%. The local match for TA funds can be obtained from various sources, such as budget appropriations, cash donations, right-of-way donations, and other grant sources, provided the other grant programs allow their funds to be used as a match for FAST Act. Currently, Indiana has received approximately \$23 million for funding the TAP program. Approximately \$1 million is taken off the top and distributed to Recreational Trails Program, and the other \$22 million is distributed to Transportation Alternatives and Safe Routes to School.



RECREATIONAL TRAILS PROGRAM (RTP)

As part of TAP, funding for the Recreational Trails Program (RTP) is set aside as a separate program. Each state has the option to "opt out" of the RTP.

This program is a federal financial assistance program administered through IDNR. It provides grants for 80% of the cost of land acquisition and/or development of multi-use recreational trail projects. Both motorized and non-motorized projects are eligible. The program is administered at the federal level by the Federal Highway Administration (FHWA), but is operated at the state level by IDNR. Previously provided funds for individual projects have ranged from \$10,000 to \$150,000. Currently, Indiana has received approximately \$1 million for RTP funding. All units of government and not-for-profit organizations with 501(c)(3) tax exempt status are eligible to participate. Applications are typically available in February and due back to IDNR by May 1 of each year.

Contact for RTP:

Bob Bronson
State & Community Outdoor Recreation Planning Section
Division of Outdoor Recreation
Indiana Department of Natural Resources
402 W. Washington Street, Room W271
Indianapolis, IN 46204
317-232-4075
bbronson@dnr.in.gov
www.state.in.us/dnr/outdoor

TRANSPORTATION ALTERNATIVES (TA)

Under FAST Act, eligible activities included in the former Transportation Enhancement (TE) program are now referred to as Transportation Alternatives (TA) activities, and are included in TA funding that remains after RTP funds are set aside. Although some former TE eligible activities are not included in TA, the activities most closely related to the development of trails, greenways, and bike/pedestrian facilities are still eligible. These activities include: on-road and off-road facilities for pedestrians, bicyclists, and other non-motorized forms of transportation; developing safe routes for non-drivers; conversion of abandoned railroad corridors for trails; and, historic preservation and rehabilitation of historic transportation facilities.

The details for the State's program and process for acquiring and using the funds is being developed. In recent years, approximately \$16 million to \$20 million in TE funds were available annually in Indiana. At this time, Indiana has received approximately \$22 million to be split between TA and Safe Routes to School.



Contact for TA Funds:

Indianapolis Metropolitan Planning Organization Steve Cunningham, Principal Planner 200 East Washington Street, Suite 1922 Indianapolis, IN 46204

Email: steve.cunningham@indympo.org

Phone: 317-327-5403

SAFE ROUTES TO SCHOOL (SRTS)

Past funding bills made specific funds available for the Safe Routes to School (SRTS) program. The MAP-21 bill did not provide specific funds this time for SRTS projects, but they are eligible for TA funds.

The SRTS program is based on the federal programs designed to make walking and bicycling to school safe, more convenient, and routine, providing a true option for school travel. Growing areas of emphasis of the program are the physical activity, environmental, and social benefits of walking and biking. INDOT is responsible for administering SRTS as part of the TA. Kindergarten through 8th grade is the primary focus and these projects should help improve access for children with physical disabilities.

In the past, the maximum infrastructure improvement project award was \$250,000. The process for applying for the funds and the funding cycle has not yet been determined.

Contact for SRTS:

Michael Cales Indiana Department of Transportation 100 N. Senate Ave. IGCN. 955 Indianapolis, IN 46204 317-232-5021 mcales@indot.in.gov



STELLAR COMMUNITIES PROGRAM

The Stellar Communities program is a multi-agency partnership designed to fund comprehensive community development projects in Indiana's smaller communities. The Indiana Housing and Community Development Authority, Indiana Office of Community and Rural Affairs, and Indiana Department of Transportation are participating in this innovative program.

A call for a letters of interest is made through an announcement to Indiana communities. Each community then submits a letter of interest. The state team choses finalist communities from the letters of interest. Finalist communities are then asked to put together a strategic investment plan. Once a community becomes a "Designated Community", they are elevated to a status of non-competitive funding for a 3-year cycle. It also means that the community will not be able to receive funds through other regular agency programs.

For more information visit: http://www.in.gov/ocra/2601.htm or contact your Office of Community and Rural Affairs Community Liason.

<u>SURFACE TRANSPORTATION PROGRAM (STP) & HIGHWAY SAFETY IMPROVEMENT PROGRAM (HSIP)</u>

The Surface Transportation Program (STP) provides funding that may be used by States and localities for projects to preserve and improve the conditions and performance on Federal-aid projects. Eligible projects include highway, bridge and tunnel projects on any public road, pedestrian and bicycle infrastructure, and transit capital projects, including intercity bus terminals. Therefore, any pedestrian or bicycle facility that has been previously funded by federal-aid can use this funding to "preserve and improve the conditions and performance." Eligible activities that relate to bicycle and pedestrian projects are as follows: fringe and corridor parking facilities and programs, bicycle transportation and pedestrian walkways, ADA sidewalk modifications; transportation alternatives; and recreational trails projects.

Similarly, under FAST Act there appear to be opportunities for bicycle and pedestrian facilities funding in the Highway Safety Improvement Program (HSIP). Traffic and accident data would need to support the development of bicycle and pedestrian facilities as a means to improve overall safety.



Contact for STP and HSIP

Indianapolis Metropolitan Planning Organization Steve Cunningham, Principal Planner 200 East Washington Street, Suite 1922 Indianapolis, IN 46204

Email: steve.cunningham@indympo.org

Phone: 317-327-5403

Tax Increment Financing (TIF)

Tax Increment Financing(TIF) is a way of subsidizing redevelopment, infrastructure, or other community improvement projects. Future gains in taxes from the completion of a community improvement project are dedicated within a certain defined district to finance the debt that is issued or money that is borrowed to pay for the project. Gains can come from the projected increase of surrounding real estate as a result from the project, which generates additional tax revenue. Tax revenue increases can also come from increased sales-tax and the addition of more jobs within the community as a result of the project. Defined districts are usually areas of distressed, underdeveloped, or underutilized parts of the community that might not otherwise see development and that would benefit from the completion of a the project.

LAND AND WATER CONSERVATION FUND (LWCF)

Land and Water Conservation Fund (LWCF) is a federal financial assistance program administered through IDNR. It provides matching grants for 50% of the cost of land acquisition and/or development of outdoor recreation sites and facilities. Funds for this program come primarily from federal off-shore oil lease receipts. The program is administered at the federal level by the National Parks Service (NPS), but is operated at the state level by IDNR. Individual projects typically receive \$10,000 to \$200,000 in funds. Only legally established park boards with an approved 5-year Park and Recreation Master Plan are eligible to participate. Applications are available on or after March 1 and are required to be submitted or post-marked by June 1 of each year.

Contact for LWCF:

Bob Bronson
State & Community Outdoor Recreation Planning Section
Division of Outdoor Recreation
Indiana Department of Natural Resources
402 W. Washington Street, Room W271
Indianapolis, IN 46204
317-232-4075
bbronson@dnr.in.gov
www.state.in.us/dnr/outdoor



PRIVATE FOUNDATIONS

There are a number of foundations and trust funds which support the planning and development of trails and greenways, in the interest of conservation, preservation, and outdoor recreation. Although many of them fund only nonprofit organizations, some will assist local public agencies. A few of these organizations include:

- Kodak American Greenways Awards through the Conservation Fund www.conservationfund.org/?article=2106
- 2. Nina Mason Pulliam Charitable Trust http://www.ninapulliamtrust.org/index.php/grant-information/

CORPORATE SPONSORSHIP

In addition to the federal and private foundation options, corporate sponsorship presents another opportunity for funding. As trails and roadways are developed, especially in close proximity to businesses or industries, there are opportunities for corporations to sponsor trails. Sponsorships can be direct financial support of construction activities for trails, trailheads, specific trail or trailhead amenities, or even trail maintenance. The donation of land for the development of trails is also an excellent method of corporate support that can become a sponsorship opportunity. Sponsorship often includes granting naming rights to the sponsor for the items or areas that were financed or donated. Contacting adjacent or area corporations should be considered for these types of sponsorships.

LOCAL BUSINESSES AND ORGANIZATIONS

Corporations and organizations within the community are often willing to help with projects that attract employees and residents to the community through bettering the amenities available. The municipality should continue to identify organizations within the community that would be willing to help with some of the smaller projects or possibly provide match money for the larger projects.