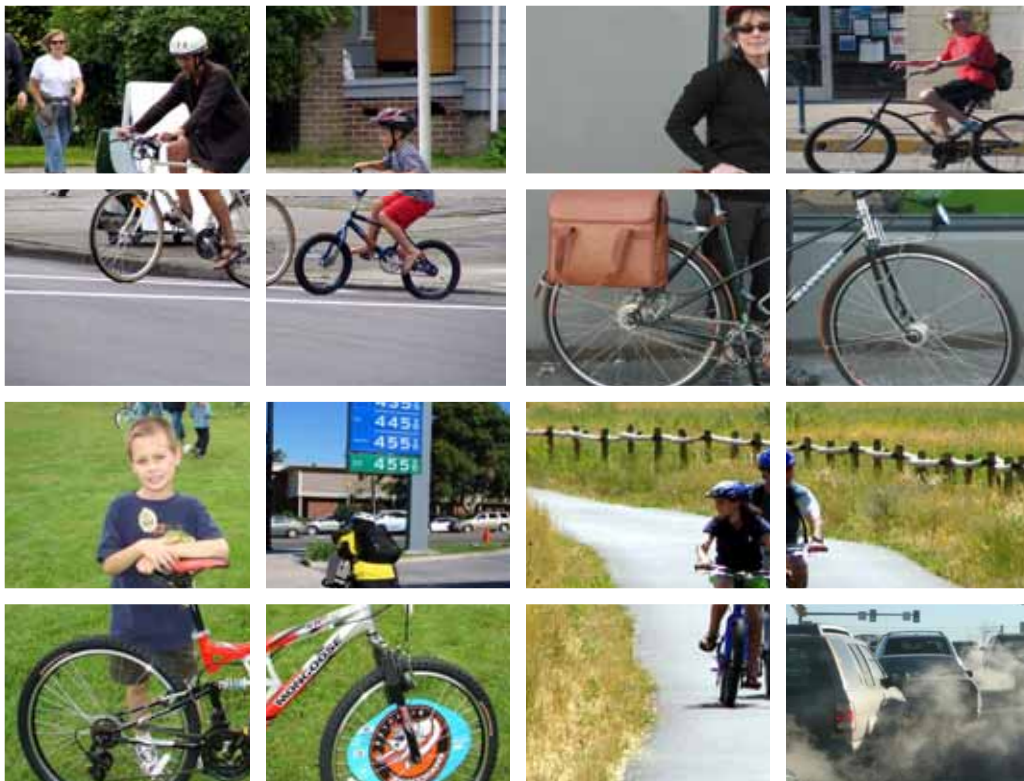





Cecil County, Maryland

Bicycle Master Plan

November 2012



Let's make the journey as important as the destination.
www.wilmapco.org/bikececil

Prepared For: Cecil County, Maryland | 200 Chesapeake Boulevard | Elkton, MD 21921 | **Prepared By:** 

In Partnership With: Charlestown | Cecilton | Chesapeake City | Elkton | North East | Perryville | Port Deposit | Rising Sun

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Cecil County, Maryland

Bicycle Master Plan

Cecil County, Maryland
200 Chesapeake Blvd.
Elkton, MD 21921-6659

Prepared By:



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November 2012

Endorsed by the Cecil County Board of Commissioners on November 27, 2012.

Endorsed by the Towns of Cecil County.

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Executive Summary

Introduction (Chapter 1)

In 2010, WILMAPCO prepared a bicycle plan for the Town of Elkton. Interest in bicycling generated during the development of Elkton's bicycle plan led to requests for WILMAPCO to produce a bike plan covering all of Cecil County. While Cecil County is rural in its composition, there are many opportunities to expand bicycling for a variety of uses. With a multimodal transportation system that supports bicycling, Cecil County will improve access to communities and other key destinations, link to other modes of transportation, promote tourism, improve air quality, and enhance quality of life. The collaborative vision for both Cecil County and the Towns is "to support multimodal transportation by focusing investments into existing communities to foster bicycling for a variety of uses including transportation, recreation, fitness, and tourism. The County and Towns will increase bicycle usage by improving safety and providing a convenient and coordinated network."

The Cecil County Bicycle Master Plan (CCBP) includes a set of goals, strategies, and actions to guide development and implementation of bicycling projects and programs in Cecil County.

The Plan's objectives include:

- Identify best practices for bicycle facilities and their possible use in Cecil County
- Evaluate existing bicycle conditions and identify gaps in the network
- Identify links to other modes of transportation, including bus and rail, pedestrian connections and park and rides
- Propose policies, programs and projects for achieving the plan goals
- Develop an action-oriented implementation plan, including funding sources and partnerships

This Plan builds on existing work, since a number of municipalities have previously adopted bicycle and greenway plans or proposed bike routes listed in their respective comprehensive plans. This Plan incorporates, but does not supersede, elements from these other efforts. The CCBP reinforces the priorities of the region and municipalities and will aid in prioritizing limited funds, seeking new funding streams, and increasing transportation funding for bicycle projects. The CCBP includes maps of proposed bicycle facilities, identifies where further bicycle investments can be made, and presents actions for implementation. This Plan will also improve Maryland's Bicycle Friendly State ranking from the League of American Bicyclists by having county-level bicycle plans. The CCBP should be updated every six to ten years.

Existing Conditions (Chapter 2)

Cecil County, Maryland and its Towns are not considered bicycle-friendly. Of total trips, Cecil County presently has less than one-percent of bicycle trips. Despite several state designated bicycle routes,

residents have noted that they do not ride their bicycles more frequently due to lacking facilities and traffic conditions. The lack of consistent bicycle education and promotional bicycling messages in Cecil County play a significant role in the current underutilization of bicycling. Bicycle parking is needed on a countywide basis, along with safety education programs. Bicycle Level of Comfort (BLOC) model results, field visits and observations, and user experience and comments, were used to assess existing bicycling conditions. This information formed the basis of the proposed bicycle network. The BLOC model uses a variety of factors to measure bicycling suitability on state-owned roadways. The BLOC produces a roadway score that is associated with a grade ranging from A (best bicycling conditions) to F (worse conditions). The Plan also summarizes several major corridors and intersections that are challenging for bicyclists including MD 213, US 40, and MD 222, but are key links and connectors for fluid bike travel.

Bicycle Network Identification (Chapter 3)

The proposed Cecil County bicycle network builds on existing regional bicycle routes including state designated bike routes, and planned trail systems such as the East Coast Greenway and the Lower Susquehanna Heritage Greenway. Activity centers and destinations were also used to help determine preferred bicycle routes. There are two levels of hierarchy for selected bicycle routes in an effort to create a balance between utilitarian trips (bicycling to school, work, or for errands) and other purposes such as touring. Bikeway is a broad definition that encompasses all facilities that may be used by bicyclists, ranging from bike lane to separated multi-use path. Countywide bikeways connect to or are located within the County's growth areas, and intended to carry the largest share of long-distance bicycle traffic. Complementary to countywide routes, local bikeways are mainly located in incorporated areas of Cecil County. These are the largest share of short-distance bicycle traffic in Towns for transportation and recreation, and access to destinations such as local parks, schools, transit stops, libraries, and community centers.

Corridors designated as a bikeway in this plan does not imply that a road is presently suitable to accommodate bicyclists. Some roads have enough shoulder width to accommodate bicycle travel while others do not have enough width to separate motorists and bicyclists. The purpose of being designated as a bikeway is to identify roads that should be targeted for bikeway improvements in the near- or long-term future. Many roadway shoulders through the County can better accommodate bicyclists with pavement markings and signage. The use of paved shoulders to accommodate bicycle traffic has the widest application in rural areas. In fact, most rural bicycle traffic, which is typically low volume, can be adequately served through the provision of 4- to 6-foot wide paved shoulders. Where existing on-road facilities do not serve bicyclists well, multi-use pathways were considered. However, they were not broadly used as a substitute for a well connected system of on-road facilities. To keep in line with existing local policies and character preservation of the County, this Plan seeks to direct the most bicycle infrastructure investments in and around existing population centers. These investments would be mainly in the growth corridor which lies in the central portion of the County.

Bicycle Parking and Transit Integration (Chapters 4-5)

A bicycle-friendly community is more than bicycle routes and signs. Bicycling conveniences are needed which include bicycle storage and intermodal linkages to transit service. Currently, bicycle parking is lacking countywide. Locations for bicycle parking should include high-demand destinations such as employment and commercial areas, parks, schools, worship centers, park and rides, and transit-oriented development (TOD) areas. Bicycle parking is also an inexpensive and efficient means of increasing parking capacities. Biking and transit use can be integrated by: providing bicycle paths that connect to transit stops; installing bicycle parking at transit stations and on buses; and allowing bicycles on rail cars.

Enforcement, Education, and Encouragement (Chapters 6-8)

Strategies to increase bicycle use and an improved sense of safety, also go beyond building a network. While the network is a necessity, actions to strengthen bicycle safety education, promotional programs, and law enforcement participation is key. Public education is more than providing information, it entails motivating change through activities and programs with emphasis on bicycle safety and laws. The CCBP outlines several education and encouragement actions to reduce preventable hazards and increase bicycle usage. Linkages between the bicycling and law enforcement communities help to reduce bicycle crashes and related injury or death. There are many potentially hazardous behaviors that motorists and bicyclists can be warned of, both through law enforcement officers and other public education mediums. Overall, as bicycle education and encouragement efforts increase, enforcement efforts should keep pace.

Implementation and Evaluation (Chapters 9-10)

Communities across the country, no matter what size or location, face challenges with improving conditions for more convenient bicycling. The advantage of having a Plan in place, however, is that it allows the County and its Towns to prepare for when funding opportunities are available for projects. Implementation of this Plan at both the County and local level, requires a concerted effort between Cecil County, the incorporated Towns, SHA, and many others. Developing key partnerships is also an important element of implementation, as different entities may perform different roles such as network development, maintenance, and promotion. Some recommendations include: installing bicycle warning and directional signage; adding pavement markings; restriping lanes for bikeway shoulders during regular maintenance; and using opportunities to implement bicycle facilities into future road projects. Many of the proposed improvements are inexpensive compared to much higher roadway construction costs, and can be easily achieved in the short- and medium-terms. Formalizing a Bicycle Advisory Committee is also strongly advised. By implementing the Plan, the County and its Towns create more desirable environments to live and work in and also encourages new economic activity through the promotion of bicycle tourism. Performance measures should be evaluated annually and the Plan should be updated every six to ten years.

Section 1. Introduction

1.1 Background

Bicycling has been gaining popularity across the United States, and overall bicycling and bicycle work commutes have increased. Many state and local governments have found it more practical in today's difficult economy to make the case for investments in bicycling as a cost effective way to help solve growing concerns for economic growth and transportation challenges such as congestion mitigation and air quality. Many states and cities have adopted goals to improve bicycling and have notably improved the quality of bicycling. While many large cities are leading the charge with cycling, suburban and rural communities are looking for practical ways to address growing interest in bicycling and reap the associated benefits.

This introductory chapter seeks to outline the benefits of bicycling, the current state of bicycling in Maryland and Cecil County, highlight local bicycle successes, and layout the framework and planning process for this Plan.

Benefits of Bicycling

Improving bicycling conditions benefits everyone in the community as it is a practical means of achieving a variety of personal and societal goals including mobility, health, equity, and overall well-being. Adequate investments in non-motorized modes of travel are not only cost-effective, but can reduce congestion, stimulate economic growth, and improve quality of life.

A common concern raised when considering non-motorized facilities is that they have no place in suburban and rural communities. The opposite is true. People in small towns need walking and bicycling for basic transportation and other uses just as much as those in larger cities. Suburban and rural communities benefit just as much as urban communities from fostering more livable places with multimodal transportation options. In most cases, the challenges are the designs of suburban and rural communities that do not make walking and bicycling natural choices for physical activity. Bicycling for physical activity would help address both the nation's and Maryland's growing obesity epidemic. Recent studies on obesity rates show significant increases across the entire population; however, some of these studies



Bicycling on a regular basis can significantly reduce transportation costs, which is the second highest household expenditure.

indicate higher rates of obesity in rural populations than urban and suburban populations¹. Long-term positive health benefits, such as lowered risks for chronic diseases, make bicycling much more attractive. Some studies suggests that bicycling where you live and work can create a sense of social connectedness. Bicycling allows people to see the surrounding environment in a different way. A strong sense of community comes from interacting with neighbors, and bicycling and walking connects community members more than automobiles.

Economically, the bicycling industry and bicycle tourism has proved to have profound impacts on local economies. Efforts to increase levels of bicycling have attracted industry and jobs in many communities across the nation. In Williamsport, Maryland newly installed bicycle racks and bicycle lanes proved to attract more trail users and patrons to shops near the Chesapeake and Ohio (C & O) Canal Trail. Seizing the opportunity to achieve more success, the Canal Town's Partnership was recently formed to bring together the eight municipalities along the 18.5 miles of the C & O Canal Trail. Through the regional program the towns work collaboratively to create more walkable and bikeable communities, support and attract businesses, and draw new visitors to the area. Realtors sell both the home and the community and those in close proximity to trails, greenways and other biking facilities witness positive impacts on property values. When other housing features are held constant, research has shown that bike facilities can have positive, statistically significant impacts on home values².



Bicycle lanes lauded as economic boosters during a ribbon cutting in Williamsport, Maryland.

Maryland's Progress

Maryland's efforts for increasing planning and funding for bicycle and pedestrian facilities follow established national policy. Actions that support these efforts include the implementation of the Maryland Department of Transportation's (MDOTs) 20-Year Bicycle and Pedestrian Access Master Plan and the Maryland Trails: A Greener Way to Go Plan. These documents provide a framework for the state's vision to fill in gaps and expand the non-motorized system, strengthen funding, and foster strategic partnerships. Maryland has made notable progress in planning and building bicycle facilities and funding programs. From 2000 to 2009, the state reported investing more than \$54.5 million³ into bicycle and pedestrian facilities and programs from Federal-Aid Highway program funds.

¹ Patterson, Paul, et al. Obesity and Physical Activity in Rural America, 2004

² League of American Bicyclists, 2009

³ FHWA Fiscal Management Information System, December 2009

Maryland's efforts have been nationally recognized. In 2012, the League of American Bicyclists (LAB) ranked Maryland as the eighth most bicycle friendly state in America as part of its annual Bicycle Friendly States survey review. Despite a few mentions here, examples of success can be found in a number of counties and cities across the state of Maryland. For example, the City of Baltimore passed a resolution which establishes a "B'More Streets for People" Program and Advisory Board. The Ciclovía-inspired program periodically closes streets during certain hours so that pedestrians, bicyclists, joggers, skaters, and others on-foot can reclaim streets for civic enjoyment. In 2011, the City of Rockville designated and filled a full-time position for a Pedestrian and Bicycle Coordinator in an effort to better coordinate local pedestrian and bicycle needs. Designating a pedestrian and bicycle coordinator supports Rockville's emphasis on multi-modal transportation and their Complete Streets Policy.

A more recent and much larger undertaking was successfully rolled out in fiscal year 2011. The State of Maryland established the Cycle Maryland Initiative which is a notable leap forward to promote bicycle commuting and tourism. Cycle Maryland's Bikeways Program awarded funds totaling more than \$3.1 million in its latest round (FY2013) and was competitively disbursed throughout many counties and municipalities. Some projects include installation of pavement markings including cycle tracks (on-road physically separated bicycle facility), extensions of existing bike paths, bike-transit integration enhancements, and bike parking. Under the program, Prince George's County has been successful in securing construction funding to extend its segment of the Anacostia River Trail from the county into the District of Columbia. In Cecil County, a feasibility study was awarded to investigate a bicycle and pedestrian connection across the Susquehanna River connecting Harford County. Under the initiative, \$2.5 million in grants were also made available to support bicycle-sharing in the state. A multitude of successes throughout Maryland has led to increasing interest and support from additional jurisdictions, including Cecil County. In 2010, WILMAPCO prepared a bicycle plan for the Town of Elkton. Public interest in bicycling generated during the development of Elkton's bicycle plan led to requests for WILMAPCO to produce a bike plan covering all of Cecil County.

Making the Case for Cecil County

As shown on Map 1, Cecil County is located in the northeastern corner of Maryland, on the upper eastern shore of the Chesapeake Bay. It is bordered on the north by Pennsylvania, the east by Delaware, on the west by the Susquehanna River and Harford County, and the south by Kent County, Maryland. The County is home to eight incorporated Towns: Cecilton, Charlestown, Chesapeake City, Elkton, North East, Perryville, Port Deposit and Rising Sun. The County is largely rural in character and had approximately 300 people per square mile in 2010.

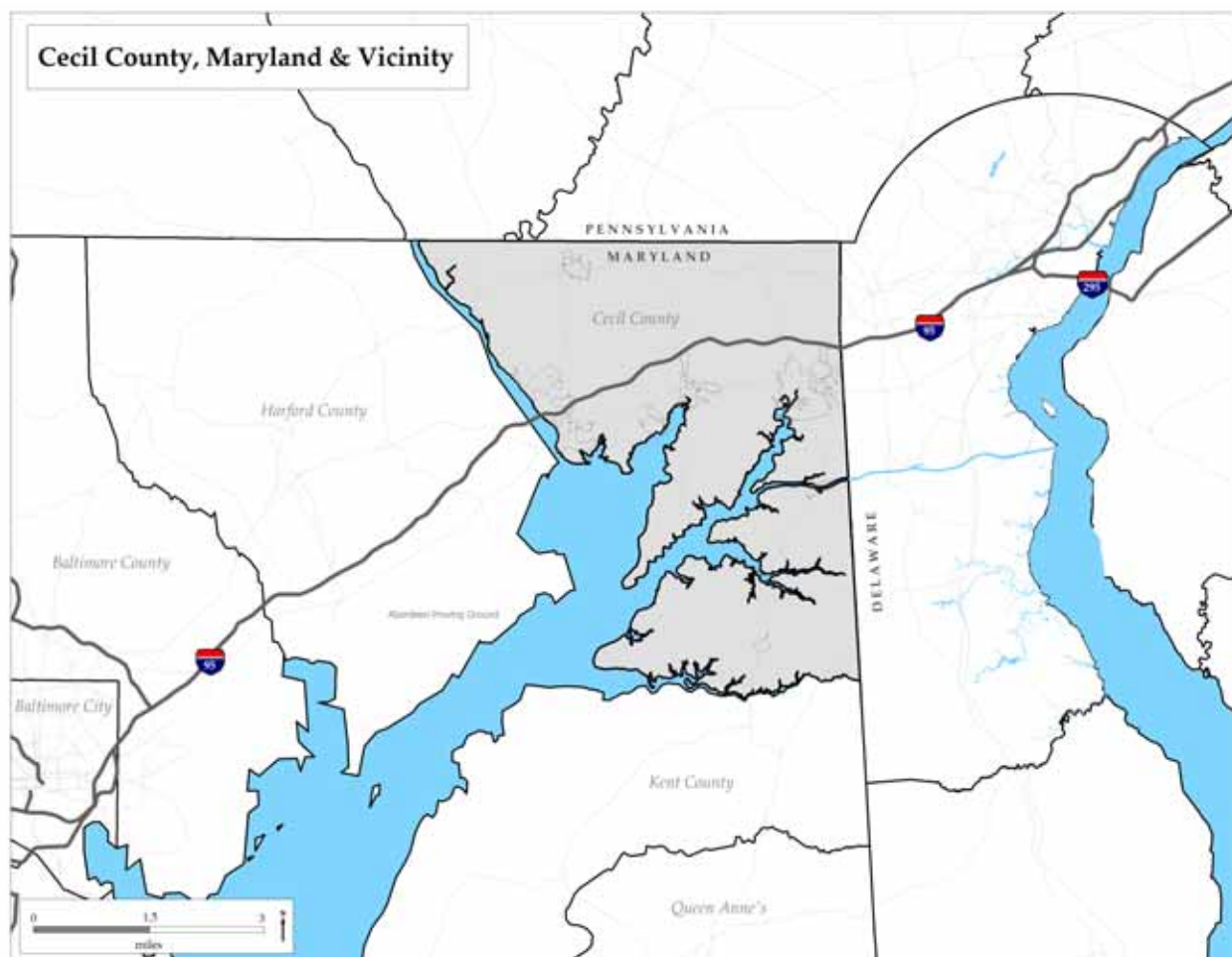
2010 Population	
Cecil County	101,199
Cecilton	663
Charlestown	1,183
Chesapeake City	673
Elkton	15,443
North East	3,572
Rising Sun	2,781
Perryville	4,361
Port Deposit	653

Source: US Census, 2010

Current bicycle users in Cecil County are recreational, tourists, and commuters. While commuter bicycling does take place on a smaller scale, biking for work trip purposes will become increasingly important, especially as mixed-use areas develop and new jobs and development arrive. Recreation and tourist cyclists are using the shoulders of existing scenic roadways and off-road shared use trails for daytime excursions and group rides. Due to its less developed landscape compared to adjacent New Castle County and other suburbanized counties in the nearby Delaware Valley, Cecil County's low volume roadways are popular with Delaware and Pennsylvania bicyclists. In some parts of Cecil County, these users can be quite numerous, particularly on certain routes and during certain times of year. Implementation of a comprehensive bicycle master plan for Cecil County can increase the attractiveness of the County for bicycling and increase the revenues already received from touring bicyclists purchasing goods and services.

Cecil County and its Towns has an abundance of shops, and rich scenic, historic, natural and cultural resources, and would benefit from connecting to these resources via bicycling. There are opportunities to capitalize on such as outdoor recreation activities, tourist attractions, and bicycle commuting for

Map 1:



residents. There are several natural resource areas in Cecil County that encompass more than 100 miles of mountain biking trails, which include the Fairhill Natural Resource Management Area (NRMA), Elk Neck State Park and Elk Neck State Forest. Fairhill NRMA is part of Maryland's state park system and is a destination along the Mason-Dixon Trail. Opportunities exist for connections to these state resources, connecting them together, and connecting them to the East Coast Greenway and C & D Canal Trail. There are also many roadways suitable for recreational road cycling in the County. These roads can integrate well with Delaware and Pennsylvania recreational cycling, as evidenced by the sizeable quantity of sponsored weekly and seasonal rides, such as those hosted by the White Clay Bicycle Club.



A bicyclist enjoys a recreational ride along MD 272/ Turkey Point Rd. near Elk Neck State Park.

The County benefits from being the home of the Mason-Dixon Trail and the Lower Susquehanna Heritage Greenway (LSHG). The LSHG is also a component of the larger system of the East Coast Greenway, which is a multi-state urban trail that connects Maine to Florida and passes through Cecil County. Cecil County's Susquehanna River shore is at the headway of the Chesapeake Bay, and it is part of a certified Maryland Heritage Area, which encompasses a water and land trail system. The 193-mile long Mason-Dixon Trail travels through Pennsylvania, Maryland and Delaware and connects the Appalachian and Brandywine Trails. Another trail in the area is the Chesapeake and Delaware (C & D) Canal Trail that once completed will connect Chesapeake City, Maryland to Delaware City, Delaware entirely off-road. A recent grant for \$2.06 million was awarded to design and construct 1.8 miles of the 17-mile long trail in Maryland. Additionally, MDOT has been asked by the Adventure Cycling Association to submit an application to the American Association of State Highway and Transportation Officials (AASHTO) to designate US Bicycle Route 1 through Maryland. It is anticipated that proposed US Bicycle Route 1 will travel through Cecil County, thus encouraging long distance bicycle travel through the County.

Cecil County stands to gain from the environmental benefits associated with greater investments in non-motorized facilities and increased demands for bicycling. As the County is forecasted to grow dramatically, one of many challenges is to preserve valuable resource lands and restore the health of the Chesapeake Bay. While the Chesapeake Bay Program has been in place since the 1980s to maintain and protect the Bay, residents of the area can help by utilizing non-motorized forms of transportation where provided and when practical. Bicycling to work or for short-distance trips is one way to make a difference, for example. Also, Cecil County currently does not meet federal air quality standards for ozone and could benefit from projects that reduce emissions, such as bicycle facilities.

Cecil County is one of several jurisdictions that has and will continue to experience growth from the recent Base Realignment and Closure (BRAC) process from the Aberdeen Proving Ground (APG). Located just across the Susquehanna River in Aberdeen, Maryland APG is an active army base. By 2035, the County is projected to grow in population and employment by 54% and 50%, respectively⁴. While there are many economic and development opportunities associated with BRAC, addressing challenges of growth and adequate infrastructure must be coordinated with a variety of stakeholders. Cecil County is working to embrace the opportunities while maintaining its rural character, meeting current and future transportation needs, and directing growth within the designated growth corridor.

1.2 Purpose of the Plan

The CCBP seeks to foster an environment that is inviting, has fewer hazards, and convenient to bicycling for transportation, recreation, and fitness. A decade has passed since the 2002 Maryland Bicycle and Pedestrian Access Master Plan was developed and outlined recommendations for all counties across the state. This Plan updates recommendations for Cecil County, identifies where further bicycle investments should be made, and presents policies and programs to support bicycle infrastructure. This document is intended to guide the implementation process that requires inter-jurisdictional cooperation among Cecil County and its eight Towns, the State, and adjacent counties on coordinated planning and development efforts. This Plan is an important part of Cecil County's future non-motorized network and should be updated every six to ten years. This Plan will help the County and its municipalities be more prepared when opportunities arise to integrate new bicycling facilities into the existing transportation network. Information about the CCBP and the final document can be found at: www.wilmapco.org/bikececil.

1.3 The Planning Process

The Cecil County Bicycle Plan Advisory Committee was created to guide the development of plan's programs, policies, and projects, and to reach consensus on the objectives and overall content. The advisory committee met five times and consisted of a variety of stakeholders including county planning staff, state and local representatives, and members of the public. Each of the Towns participated to ensure municipal perspectives and priorities were fully represented in the planning process.

The development of this bicycle plan is a collaborative effort of the following agencies:

- 1) Cecil County Department of Parks and Recreation
- 2) Cecil County Department of Public Health
- 3) Cecil County Department of Planning and Zoning
- 4) Cecil County Municipal Governments: Cecilton, Charlestown, Chesapeake City, Elkton, North East, Perryville, Port Deposit and Rising Sun

⁴Maryland Dept. of Planning

- 5) Cecil County Department of Tourism
- 6) East Coast Greenway Alliance (ECGA)
- 7) Lower Susquehanna Heritage Greenway, Inc. (LSHG)
- 8) Maryland State Highway Administration (SHA)
- 9) Maryland Department of Natural Resources (DNR)
- 10) Maryland Department of Planning (MDP)
- 11) Maryland Transit Administration (MTA)
- 12) Maryland Department of Transportation (MDOT)
- 13) Wilmington Area Planning Council (WILMAPCO)

Establishing a Framework

This Plan's framework is established using existing federal, state, regional and local policies that influence bicycling within the County and Towns. Nationally, the goals for bicycling and walking are to increase the mode shares and improve safety of non-motorists. In 2010, the U.S. Department of Transportation issued a policy statement which includes considering non-motorized modes in all transportation planning activities and projects. Similarly, the state of Maryland has an established policy framework for planning, developing, and improving access to non-motorized facilities. The State has taken many strides to advance bicycling as an attractive and safe mode of travel, including actions to implement the Maryland Department of Transportation (MDOT) 20-Year Bicycle and Pedestrian Access Master Plan and the Maryland Trails: A Greener Way To Go Plan. Both documents outline the State's vision and implementation plan to expand bikeways, address missing trail links, and strengthen funding and partnerships.

The Cecil County Comprehensive Plan (2011) sets a countywide vision, which includes a multimodal transportation system that meets the mobility and accessibility needs of its residents and employees through a combination of roads, transit, and non-motorized facilities. The Comprehensive Plan was developed with input from incorporated jurisdictions, and requires intergovernmental coordination between the County and the Towns to implement a consistent vision. Additionally, municipal documents were sought including comprehensive plans. Municipal Comprehensive Plans guide policies for future growth and development and seeks to facilitate viable bicycle transportation.

Other documents referenced were the Cecil County Transportation Development Plan (2010), Cecil County Land Preservation, Parks and Recreation Plan (2011), East Coast Greenway Plan (2003), and the WILMAPCO 2040 Regional Transportation Plan (2011). Collectively, these documents present interrelated policies that identify non-motorized transportation as one key to improving quality of life.

Community Involvement

The framework for the CCBP is also based on comments received through the public outreach process. While the advisory committee was the primary conduit for public input, other avenues were utilized to understand the needs and concerns of residents and local representatives. Input was sought through committee meetings, open house public workshops, presentations at Town meetings, and field worksheets and comment forms. A variety of input helped to make this document relevant to the needs of the community.

Open House Public Workshops:

- November 1, 2011 - County Administrative Building
- May 31, 2012 - Chesapeake City
- November 20, 2012 - County Administrative Building

Other events, meetings and local workshops (*starred*):

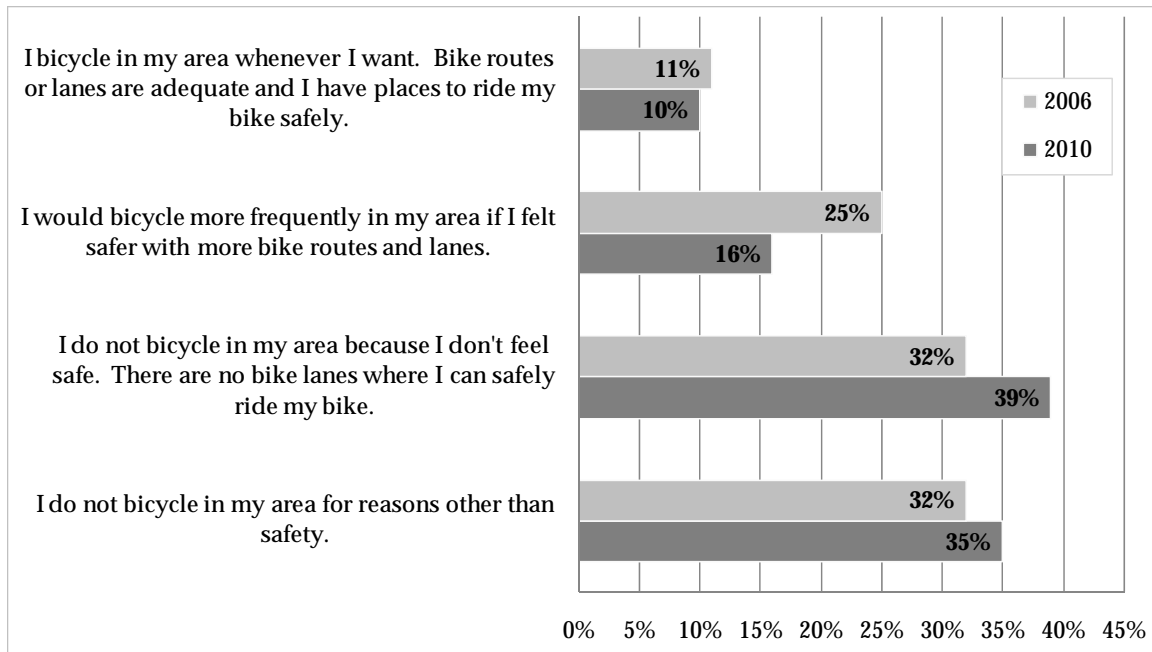
- Cecil County Bike Plan Advisory Committee – 6/13/11, 9/12/11, 12/15/11, 3/15/12, 5/30/12
- Cecilton – 2/8/12*
- Charlestown – 7/24/12; 11/13/12
- Chesapeake City – 2/15/12*; 11/26/12
- Elkton Fall Fest - 9/22/12
- Fairhill Mountain Bike Jamboree – 10/23/11
- North East – 2/1/12*; 5/23/12*
- Perryville - 12/18/12 (public outreach was conducted through process for 2012 Greenway Plan)
- Port Deposit - 3/2/12*; 5/5/12 (Port Palooza) ; 11/6/12
- Rising Sun – 3/13/12*
- WILMAPCO Non-Motorized Transportation Work Group – 10/4/2011; 2/7/12; 6/5/12; 10/2/12

Major themes from the public workshops and comment forms included safety, connectivity, education, funding, and off-road biking facilities as well as on-road. WILMAPCO's Public Opinion Survey was also referenced to understand the concerns and preferences of Cecil County communities. With 200 respondents, the survey highlights existing public support for bicycle facilities, shown in Figures 1 and 2. In 2010, 64% of respondents stated that designing communities that make it easier to walk and bike were effective improvements to reduce congestion in Cecil County. Forty-five percent were in favor of expanding bicycle networks. In comparison, only 13% agreed that new major highways were effective measures.



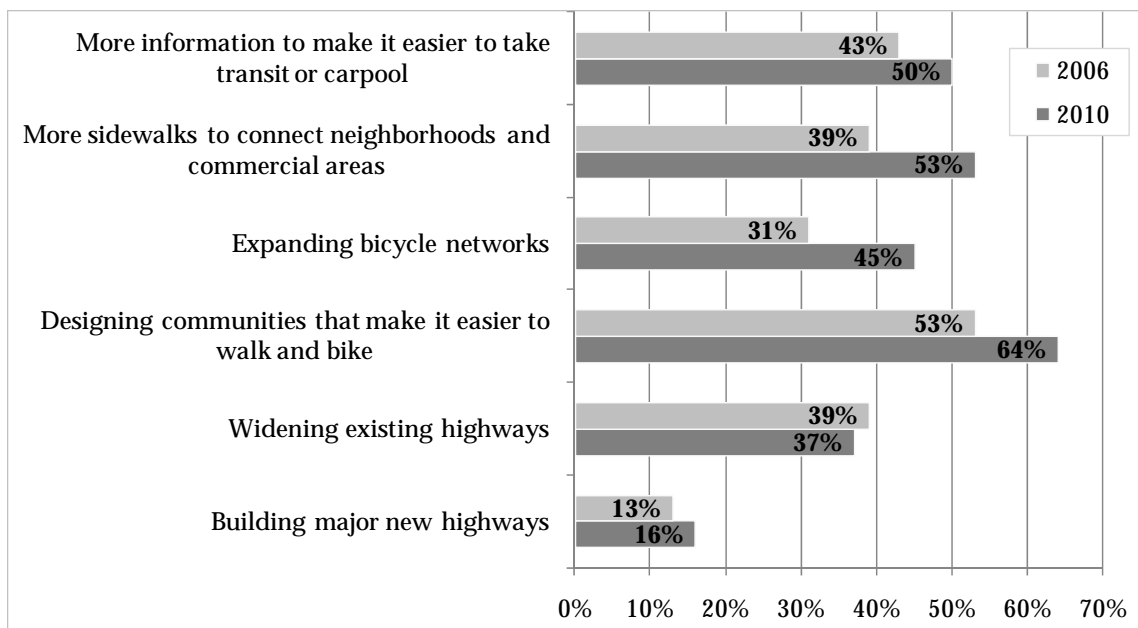
Stakeholders reviewed information boards and maps and provided input at various public workshops.

Figure 1: Use of Bicycle Facilities in Cecil County



Source: WILMAPCO Public Opinion Surveys in Cecil County

Figure 2: Perceived Effectiveness of Improvements to Reduce Congestion in Cecil County



Source: WILMAPCO Public Opinion Surveys in Cecil County

1.4 Vision, Goals, and Strategies

While Cecil County and each of the eight Towns develops separated but coordinated Comprehensive Plans, there is a common vision between the various plans. Each jurisdiction expresses a shared vision for a future transportation network that is a multimodal system that meets the mobility and accessibility needs of its residents and employees through a combination of roads, transit, and non-motorized facilities. Accordingly, this County and Town's bicycle plan seeks to improve the access and comfort of bicycling, reduce preventable hazards, enhance links to other modes of transportation, and create safety education and promotional programs. The collaborative vision for both Cecil County and the Towns is to:

Cecil County Master Bicycle Master Plan Vision Statement

“Support multimodal transportation by focusing investments into existing communities to foster bicycling for a variety of uses including transportation, recreation, fitness, and tourism. The County and Towns will increase bicycle usage by improving safety and providing a convenient and coordinated network.”

Goals follow a “Five Es” approach as a way to frame the bicycle issues and take a holistic approach to the planning process. The following page outlines the plan's goals following the Five Es which include Engineering, Education, Encouragement, Enforcement, and Evaluation. Goals and objectives should serve as the basis for formulating bicycle related policies.



Parents riding bicycles lead their children by example.

Goal 1: Planning/Engineering - Develop a coordinated bicycle network that is attractive, accessible, convenient, reduces preventable hazards, and provides intermodal connections.

Strategies

- 1.1 Provide well designed, well-marked, and maintained on- and off-street bicycle routes.
- 1.2 Provide connectivity to county, regional, and national bicycle routes.
- 1.3 Integrate bicycling with public transit facilities and services.
- 1.4 Provide adequate and secure bicycle parking at all major trip destinations.
- 1.5 Incorporate bicycle elements into planning activities and development.
- 1.6 Develop an implementation plan and schedule.

Goal 2: Education - Provide effective information regarding bicycling techniques and motor vehicle operations.

Strategies

- 2.1 Utilize and publicize the availability of existing bicycle safety instructional materials available from MDOT to educate Cecil County residents on effective bicycling lessons.
- 2.2 Form partnerships with public schools, Cecil College, bicycle clubs and advocacy groups, social service agencies and health departments and other state agencies to assist in providing bicycle education.

Goal 3: Encouragement - Increase bicycle usage by establishing a positive image of bicycling in the community that will foster bicycle-oriented lifestyles and businesses.

Strategies

- 3.1 Promote bicycling as a legitimate means of transportation, recreation, fitness, and tourism.
- 3.2 Involve the community in the planning and implementation of the bicycle plan.

Goal 4: Enforcement - Provide enforcement of traffic laws related to bicycling.

Strategies

- 4.1 Effectively enforce laws that impact bicycle safety to reduce crashes and violations against a bicyclist.

Goal 5: Evaluation - Periodically examine and quantify the plan's implementation progress and make adjustments where necessary.

Strategies

- 5.1 Establish a countywide bicycle advisory committee to monitor the plan's performance measures prepare an annual report on implementation progress.

Section 2. Existing Conditions

There were several components to assess existing bicycling conditions for Cecil County and its Towns: opportunities with state and regional planned networks, the Bicycle Level of Comfort (BLOC) model, identifying activity centers and destinations, field visits and observations, and user experience and comments. Together, the assessment of these pieces of information formed the basis of the proposed bicycle network, which is presented in Section 3. Bicycle Network.

2.1 Overview

At this time Cecil County and its Towns are not considered bicycle-friendly by many people. Bicycling in Cecil County presently accounts for less than one-percent of all commute trips. Residents have noted that they do not ride their bicycles more frequently due to lacking facilities and traffic conditions. Despite having five statewide designated bicycle routes, bicycle travel throughout the County is low along roadways and commonly occurs along some pedestrian facilities. Maryland's statewide designated bicycle routes stretch along five principal arterials in the County: MD 273, from US 1 to DE state line; MD 213, from 273 to Kent County; MD 222, from US 1 to US 40; US 40, DE state line to MD 222; and US 1, from the Susquehanna River to MD 273. Some routes are partially signed and striped for better bicycle usage, while others are not. The County or Towns do not presently have bicycle lanes and many roads do not have shoulders.

The County also lacks bicycle racks for short-term storage. While the County promotes a number of outdoor recreational activities, the lack of consistent bicycle education and promotional bicycling messages play a significant role in the current underutilization of bicycling. Improving the physical infrastructure along with safety education and promotional programs will make the County and the Towns feel safer for bicycling.



A bicyclist pedals along Broad Street in Perryville.



Additional bicycle parking is needed for shops along Main Street in North East.

In 2010, the County had a population density of roughly 300 people per square mile and 70% of the County is rural⁵. While the County's rural nature and long distances between origin and destination points can be barriers for certain bicycle trip purposes, its rural nature and low volume roadways can be promoted to touring bicyclists, including those from Central Maryland and suburbanized Delaware Valley communities. Less dense development is also often accompanied by greater open space and parks that are ideal for recreational bicycling. Considering Cecil County is a rural setting, opportunities for recreational and tourist riding to natural, cultural, and historic sites have been considered in the selection of routes. Within each of the Towns, distances between activity centers are shorter and riding is more attractive to the larger group of more casual bicyclists. Focus on these connections could provide easier travel between residential areas, schools, parks, and other activity centers. There are two levels of hierarchy (short- and long-distance) for selected bike routes in an effort to create a balance between everyday trips (bicycling to school, work, or errands) and other purposes, which are further discussed in Section 3. Bicycle Network.



Cecil County and its Towns are home to many natural, cultural and historic treasures that should be accessible via bicycling.

2.2 Opportunities

Despite lacking on-road bicycle facilities, Cecil County has a number of previously proposed off-road greenways and trails. The Cecil County Greenway Atlas (2000) identified ten segments, which among these segments is the Lower Susquehanna Heritage Greenway and the Chesapeake and Delaware (C & D) Canal Greenway Trail. Construction plans of the C & D Canal in Delaware and Maryland are moving ahead. The East Coast Greenway, a national trails system, is planned to connect Perryville and Charlestown along MD 7, parallel to the Amtrak right-of-way. The East Coast Greenway alignment through Towns such as Elkton have not been implemented. The County would be more friendly to bikes once these segments are completely built. Additionally, Cecil County is home to key natural areas and trails, such as the Fair Hill Natural Resource Management Area, the Elk Neck State Forest and Elk Neck State Park, which could be made more accessible by bicycle.

⁵ Cecil County Comprehensive Plan, 2010

Below are descriptions of each system and its opportunities, along with website addresses for more information.

Chesapeake and Delaware Canal Trail • www.nap.usace.army.mil/Projects/CD

The Chesapeake and Delaware (C&D) Canal is one of the busiest working waterways in the world, and is an extraordinary natural resource on the Delmarva Peninsula. The 2006 C&D Canal Recreation Study proposed constructing 177 miles of multi-use trail on the north side of the canal from Delaware City, DE to Chesapeake City, MD. Currently, nine miles of this trail is planned for construction within Delaware --trail from Delaware City to St. Georges, or Summit Marina if funding allows. This is an ideal opportunity to continue the trail into Cecil County. Chesapeake City was awarded a grant to design and construct 1.8 miles of the 17-mile long trail segment in Cecil County.



A view of the C & D Canal Trail from the MD 213 Bridge.

East Coast Greenway • www.greenway.org/md

The East Coast Greenway (ECG) is a planned 3,000-mile off-road urban trail that will connect cities and towns from Calais, Maine to Key West, Florida. Through Cecil County, the route is planned through Perryville, Charlestown, North East and Elkton before continuing north to Wilmington, Delaware and south to Baltimore, Maryland. Thirty-two percent of the 1,660 miles through Maryland is complete. Today, the only built section in Cecil County is the trail through Perryville



Bicyclists enjoy the East Coast Greenway.

Community Park and Perry Point and no sections have been designated by the East Coast Greenway Alliance. An interim-on road route has been identified, but signage of lacking though Cecil County.

Lower Susquehanna Greenway Heritage Trail • www.hitourtrails.com

The Lower Susquehanna Heritage Greenway (LSHG), a non-profit organization that aims to stimulate local economic activity by developing linkages between a series of land and water recreational trails along the east and west banks of the Susquehanna River. The LSHG has planned 40 miles of interconnected recreation trails connecting Harford and Cecil Counties, of which 22 miles are complete. Currently, the greenways in the Perryville Community Park, Perry Point and paralleling Frenchtown Road are part of the LSHG network, as well as pathways in Port Deposit. The LSHG has been identified as a priority segment for the Captain John Smith Chesapeake National Historic Trail. The trail, administered by the

National Park Service, is the first national water trail in the United States. This trail has been designated part of the East Coast Greenway, the Mason-Dixon Trail, a Maryland Scenic Byway, a Chesapeake Bay Gateway, and the John Smith National Water Trail. Current LSHG initiatives include a feasibility study of the Susquehanna River Crossing for pedestrians and bicyclists. Non-motorists are not allowed access on the bridges, and the new bus service must be used to cross the Susquehanna River. LSHG will coordinate with Towns along the river, Amtrak, MARC, MDTA planning, and WILMAPCO. Funding for this effort was awarded under the FY 2012 Maryland Bikeways Grant Program.

Mason Dixon Trail • www.masondixontrail.org

The Mason Dixon Trail connects the Appalachian Trail and the Brandywine Trail. This 193-mile trail passes through Pennsylvania, Maryland and Delaware. The Trail crosses the Susquehanna River and travels through Perryville near the southernmost section of the route. Mostly maintained by volunteers, it is largely a walking trail that is unpaved and off-road.



Directional sign for Mason-Dixon Trail

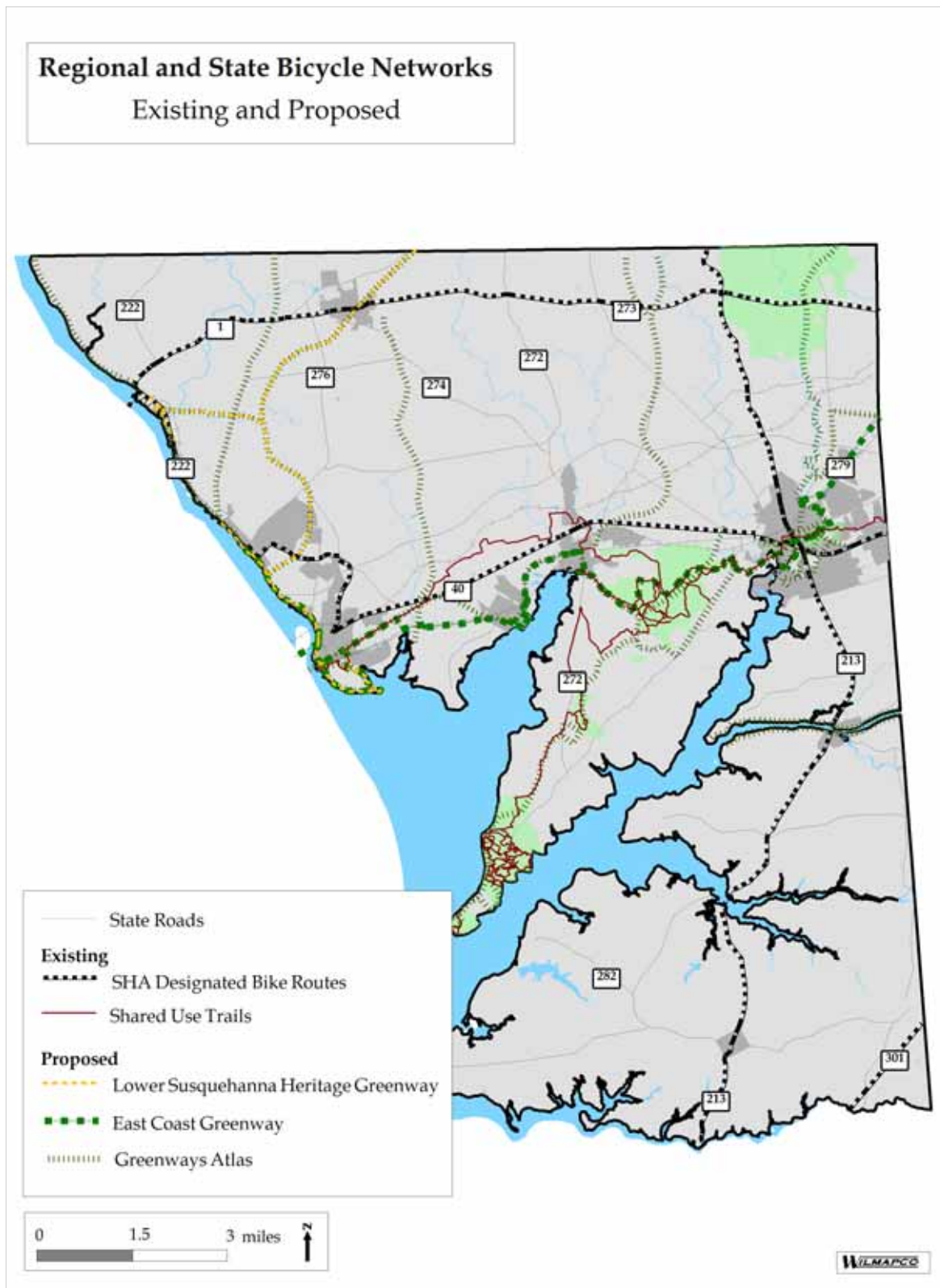
U.S. Bicycle Routes • www.adventurecycling.org/usbrs

The U.S. Bicycle Route System (USBRS) is a proposed national network of bicycle routes that span multiple states and are of national and regional significance. These routes are nominated for national designation by State Departments of Transportation (DOTs) and designated by the American Association of State Highway Officials (AASHTO). Adventure Cycling Association, a non-profit organization and member of the AASHTO Task Force, is working to create this national corridor-level bicycle route system. Aligning U.S. Bicycle Route 1 (US BR 1) through Cecil County is currently under consideration by MDOT and other stakeholders.



Map and signage for U.S. Bicycle Routes

Map 2:



2.3 Bicycle Level of Comfort Assessment

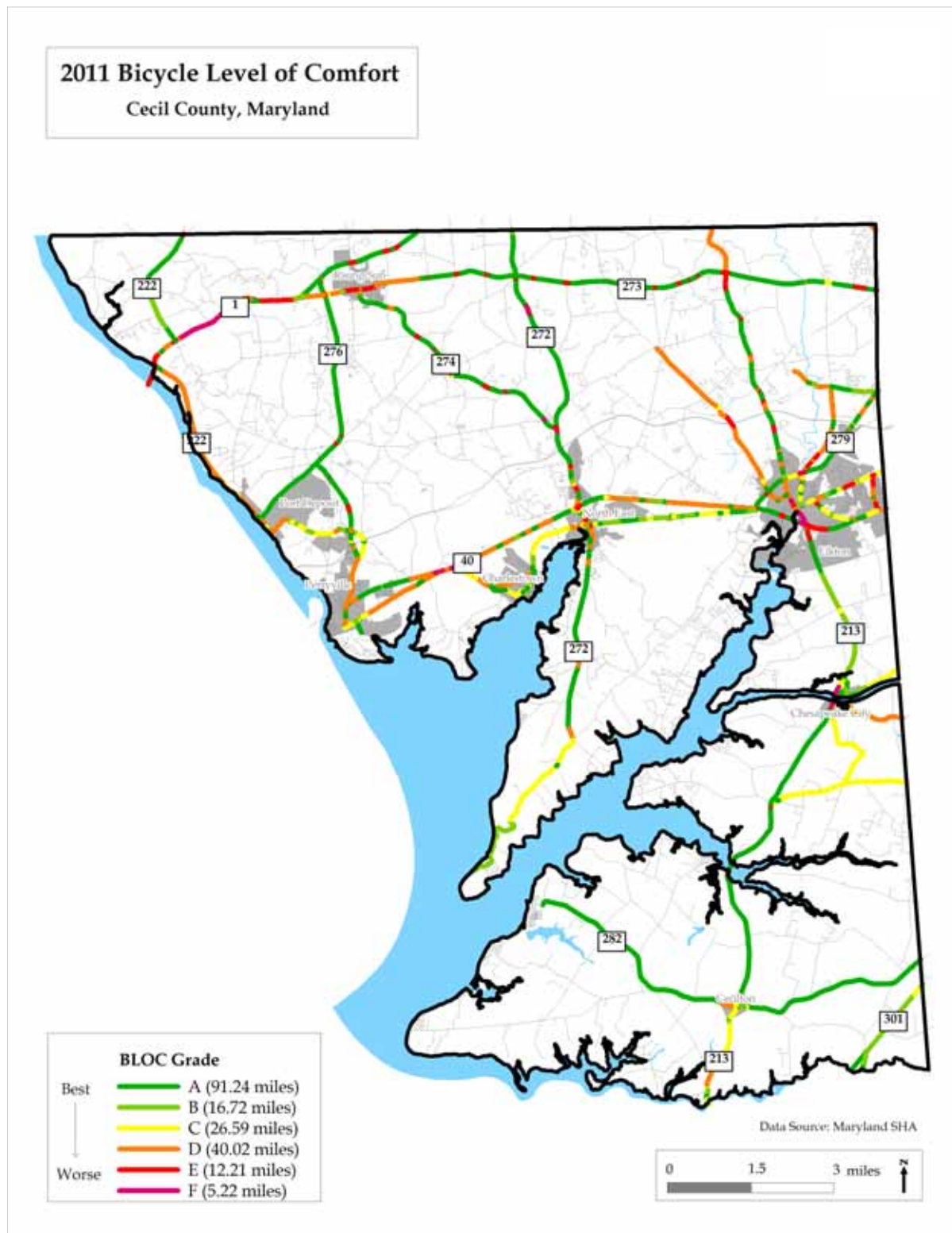
The BLOC model was used by MDOT to measure bicycling suitability on state-owned roadways in the Twenty Year Bicycle and Pedestrian Access Master Plan (2002). The BLOC model is updated annually by SHA and considers a variety of factors that affect the comfort of bicyclists such as existing traffic volumes, posted speeds, percentage of heavy vehicles, outside lane and shoulder widths, and several others. A more detailed explanation of the BLOC model inputs can be found in the Appendix. The BLOC produces a roadway score that is associated with a letter grade ranging from A (best bicycling conditions) to F (worse conditions). Since the model represents the comfort level of a hypothetical typical bicyclist, there are some bicyclists who may feel more comfortable and others who may feel less comfortable than the BLOC calculated for a particular roadway.

Regardless of size or location, communities everywhere face a variety of issues that affect bikeability. It is important to note that a lower BLOC grade does not necessarily mean that bicyclists should be prohibited on a roadway. Rather, a lower grade suggests that the road segment is a weak link and would benefit from several improvements to help more bicyclists feel comfortable using the corridor. These improvements would increase future BLOC scoring, and maintain consistency with a statewide goal to increase walking and biking annually.

Additional data were also collected through site visits of each Town and weak links highlighted through the BLOC model, and a photo essay. User experience and comments were collected through field worksheets provided to residents and bicyclists. A sample of the field worksheet is provided in the Appendix. Comment forms and staff were available at open houses and town meetings to record bicyclists familiarity of local bicycling conditions, concerns, and needs.

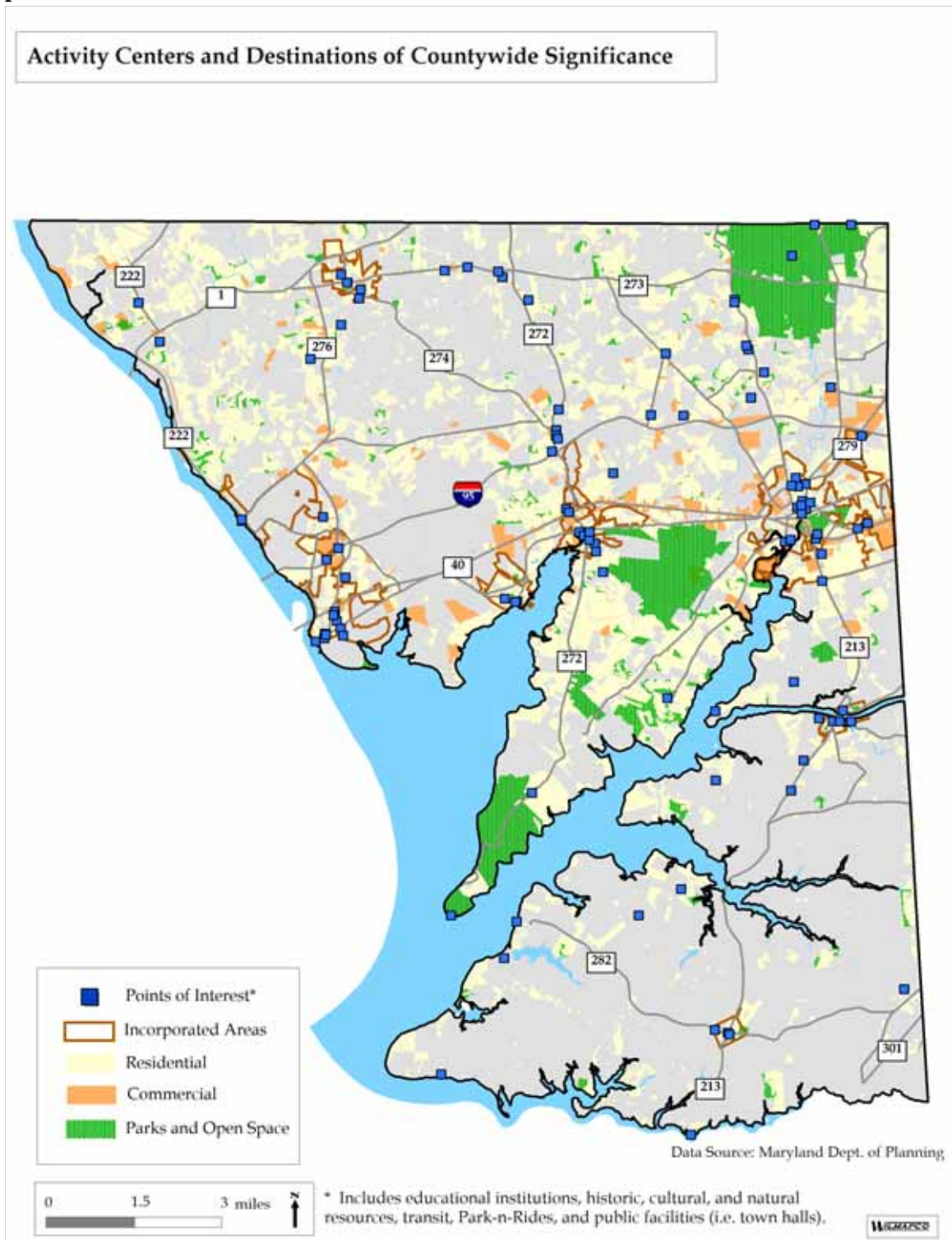
The BLOC model was calculated by SHA for state-owned roadway segments in Cecil County. The results shown on Map 3 indicate that while many roadways are grade A or B, intersections are not as satisfactory. This point is exemplified along MD 273 between MD 213 and MD 272. There is much more difficulty moving through intersections than along corridors with actual shoulders. Many of the worse bicycle level of comfort scores are dispersed along the US 40 corridor, and most lie outside of incorporated areas. The US 40 segments lie outside of incorporated areas. Research has shown that bicyclist comfort improves when travel lanes are narrowed to provide additional space along the edge of the road. Lane narrowing also has the effect of visually narrowing the street, often resulting in decreased motor vehicle speeds. Forty-seven percent of state-owned highways in Cecil County are considered in best condition (BLOC Grade A) for bicyclists. This figure is up from 40% in 2002. On the other hand, more than a one-quarter of state-owned roads in Cecil County have bicycle level of service D or worse. Working with the SHA is essential for on-road facilities, as the state owns close to 200 miles of roadway in Cecil County.

Map 3:



Map 4 depicts activity centers and destinations of countywide significance which were used to help determine bicycle routes.

Map 4:



2.4 Issues and Constraints

The following information includes a summary of several major corridors, intersections and bridges identified as having challenges for bicyclists, but are key links for efficient bicycle travel within the County and beyond.

Corridors:

MD 222

MD 222 (Perryville Rd) is a 40 miles-per hour arterial that provides north-south access along the western portion of the County. MD 222 between US 40 and I-95 has seen increasing local and regional traffic and capacity is constrained. In a separate study of this area, bicycle and pedestrian issues were identified. While northbound MD 222 (from US 40 to Reservoir Rd) has a narrow shoulder (approximately 3 feet), the southbound direction does not. Bicycle travel along MD 222 southbound provides access to commercial sites and other destinations along US 40.

MD 222 (Aiken Avenue), south of US 40, has lower speeds and a more inviting bicycling environment. Aiken Avenue can provide an on-street route to the Perryville Train Station, Perryville Pier, the Rodgers Tavern historic site, and landside and waterfront properties all located off of Broad Street. This route should make efforts to link to Perryville's existing and planned greenways.

MD 272

MD 272 is a major collector and main north-south connector of central Cecil County, which travels from the Pennsylvania state line, through North East, and south to Turkey Point located in Elk Neck State Park. There is adequate shoulder width at MD 272 near the I-95 interchange; shoulders along the south side of MD 272 continue past the CSX rail line and south towards US 40. The MD 272 bridge over CSX rail line could also benefit from future improvements. While there are narrowly striped shoulders, there is no grade separation or traffic barriers for added safety for non-motorists traveling over the bridge. There is potential for a separated bike path on MD 272 near Gilpin Falls Covered Bridge that



MD 222/Aiken Ave., Perryville



MD 222/ Bainbridge Rd., Port Deposit



MD 272/ N. East Rd., Gilpin Falls Bridge



MD 272/ Mauldin Ave., North East

connects Cecil College. The path could wind through the historic Gilpin Falls Bridge area, and other destinations nearby. MD 272 south of US 40 has mostly continuous shoulders with adequate width as well, with travel lanes at least 14 feet wide.

US 40

US 40 has the highest traffic volume of any roadway open to bicycle travel in the County. Traffic volumes, combined with speeds and the configuration of commercial development, make bicycle travel along the corridor uninviting and difficult. This statewide designated bicycle route has periodic bike route signage and bicycle pavement markings in shoulders. Along most of its length, shoulders are present at varying widths and some portions need repair. Moving cyclists safely through intersections of US 40 is difficult as shoulders often disappear approaching intersections without any signage to warn the end of the bicycle facility is ahead. In other instances, shoulders do not continue past the intersection and provide inconsistent space to ride. Several intersections along US 40 would benefit from both bicycle and pedestrian upgrades, such as US 40 at MD 272. The US 40 corridor is listed in the Cecil County Strategic Roadway Plan (2007) and Comprehensive Plan (2011) for major upgrades to enhance safety and flow for all modes of transportation. The goals in the Cecil County Comprehensive Plan are to: 1) Develop US 40 into the County's primary business corridor; 2) preserve capacity, 3) maintain free traffic flow, 4) enhance its visual appearance, and 5) expand transit, and pedestrian, and bicycle options.



Along US 40, west of Landing Lane, bike signage and bike route pavement markings encourage usage.



Along US 40, west of Mechanics Valley Rd., a shoulder with bike route pavement markings is inaccessible and forces bicyclists to use adjacent travel lane.

Channelization along US 40 also creates obstructions. It is recognized by SHA that these channelizing islands pose problems in a number of places throughout the state for bicyclists.



Pavement striping fronting the channelization island on US 40, near Sycamore Drive, interferes with bicycle traffic.

Intersections:

US 40 at MD 213, MD 272, and MD 222

Intersections bring bicyclists and motorists into conflict, and can be challenging locations for safe and efficient movement for bicycle traffic. Most US 40 major intersections are difficult to navigate, especially for inexperienced riders. These three intersections have heavy vehicular congestion with various retail uses on all four corners. Due to high traffic volumes, pavements in these areas are in fair to poor condition and shoulders are not continuous. Generally, these intersections are not inviting to non-motorists and present safety concerns. After every major intersection along US 40, bike route signs are present but have no accommodations through intersections. Also signal timings at these intersections do not account for bicycles. Bicycle shortcuts to adjacent shopping would be useful. Hazards for bicyclists at these intersections can be reduced through better design and traffic controls. Updating intersections along US 40 is also consistent with goals listed in the BRAC action plan for Cecil County.

Bridges:

Hatem Bridge

The shoulder bikeway along US 40 westbound ends when it approaches the MD 222 intersection, as bicyclists are not permitted to cross the Hatem Bridge further west of the intersection. The need for bicycle access across the Hatem Bridge to connect Cecil and Harford Counties has been well documented and

identified as a barrier to regional connections by bicycle. A new transit connection has been in service, which includes bicycle racks on the buses, and provides bicyclists access into Harford County and central Maryland. In addition to the transit service, guide signs direct bicyclists to a public telephone with directions on how to cross the Hatem Bridge via taxicab. The phone numbers of taxicab companies are listed. While both transit and taxicab service provides bicyclists with options for crossing the Hatem Bridge legally, both options have drawbacks such as limited transit service availability and higher costs using the taxicabs than two-axle vehicle operators pay in tolls. State law now permits the Chairperson of the Maryland Transportation Authority (MDTA) to allow bicyclists to use the bridge. Stakeholders should work with MDTA to explore the possibility of direct access across the Hatem Bridge by bicyclists.



Hatem Bridge taxicab service guide sign on US 40 in Cecil County.

2.5 Summary of Countywide Needs

The assessment has culminated into a list of bicycle needs in the Towns and countywide.

1. Enhance visual cues are needed to increase motorists' awareness of bicyclists on the roadway.
2. Improve intersections for bicyclists, such as bicycle detection and/or bicycle-only phases at signalized crossings.
3. Improve bicycle way-finding signage is needed.
4. Formalize enforcement and education programs to familiarize motorists, cyclists, and pedestrians of laws, safe behavior, and how to share the road with other transportation users.
5. Improve non-motorized access to major transit stops, improve bicycle-transit integration.
6. Connect to recreation, historic, and cultural resources.
7. Ensure routes are accessible to most densely populated areas as well as communities with above average minority populations, low-income and zero-car households.
8. Provide adequate bike parking at major shopping and employment centers and other regionally significant activity centers and destinations.
9. Complete planned off-road routes such as the East Coast Greenway, the Lower Susquehanna Greenway, and the C & D Canal Trail.

Section 3. Bicycle Network

This chapter presents the proposed bike routes, considerations and criteria used to indentify the proposed routes, types of facility treatments and design considerations. Foremost, addressing the needs of bicyclists requires an understanding of various types of bicyclists and their different user needs.

3.1 Types of Cyclists

Bicycle network users have varying skill levels. An adequate bicycle system should accommodate all riders and skill levels. The largest percentage of riders fall within the group B, or casual riders. It is accepted that both young and older bicycle riders are good indictors of a healthy bicycle network. This Plan is aimed at accommodating the largest proportion of casual bicyclists, which comprise the largest category of bicyclists. Experienced bicyclists tend to use a variety of roadways, improved for bikes or not.

Group A		Experienced cyclists are able to ride under most traffic conditions. The best way to serve group A is to create all roads that accommodate shared use, and within rural areas best served by shoulders.
Group B		Casual cyclists prefer to ride at a slower pace within a designated facility, with lower speeds and less traffic.
Group C		Novice cyclists typically ride along residential streets and need well- defined separation from vehicular traffic.

3.2 Bikeways Types and Treatments

A bikeway is defined as any road, path, or way open to bicycle travel regardless of whether such facilities are designated for the preferential use of bicycles or are to be shared with other transportation modes. There is a wide range of facility improvements that can enhance bicycle transportation. Improvements can range in complexity, going from a simple design fix such as changing drainage grates, to a detailed design such as providing a bicycle path. The proposed bicycle routes in Cecil County are mainly in the form listed, except for wide outside shoulder lanes. Many roadway shoulders through the County can better accommodate bicyclists with pavement markings and signage. The use of paved shoulders to accommodate bicycle traffic has the widest application in rural areas. In fact, most bicyclists can be adequately served through the provision of 4- to 6-foot wide paved shoulders. Shoulders are important features for travel as bicycles are prohibited on roads with posted speed limits of 55 miles per hour or higher unless there is a continuous paved shoulder or designated bicycle path or way. Separated bicycle paths were also considered where shared and bicycle lanes and shoulder accommodations were not feasible. During a project's development process, all appropriate facility types and treatments should be considered.

On-Road

- **Shared Roads** - A shared lane is a travel lane shared by bicyclists and motorists and designated with "Share the Road" signs and/or bicycle route signs.
- **Wide Outside Lane** - A wide outside lane is greater than 13 feet in width that is adjacent to the right edge of the roadway.
- **Paved Shoulder** - A paved shoulder means that portion of a highway contiguous with the roadway for the accommodation of stopped vehicles, for emergency use, and for the lateral support of the base and surface courses of the roadway.
- **Bicycle Lane** - A bike lane is a portion of the paved road (min. 4 feet) that is designated by striping, signing and pavement marking for the preferential or exclusive use of bicyclists.



Shared Lane Marking



Bicycle Lane

Off-Road

- **Shared-Use Path** - A shared-use path (min. 10 feet) is a route, separated from other roads by a barrier or open space that is designed to accommodate a mix of non-automotive users (e.g. walkers, runners, strollers, wheelchair users, roller skaters and bicyclists). It could have a variety of surface types and functions (side path, greenway, pathway).



Shared-Use Path

3.3 Bicycle Network Identification

Typically, there are key basic tenets that guide bicycle route selection: perceived level of safety/low conflict, route directness, accessibility, cost, public demand and relative ease of implementation. Using the data collected from the assessment and public input, preferred bicycle routes were selected.

A corridor designated as a bikeway in this plan does not imply that the road is presently suitable to accommodate bicyclists. Some roads have enough shoulder width to accommodate bicycle travel while others do not have enough width to separate motorists and bicyclists. The purpose of being designated as a bikeway is to identify roads that should be targeted for bikeway improvements in the near- or long-term. Where existing on-road facilities do not serve bicyclists well, shared-use pathways were considered. However, they were neither intended nor broadly used as a substitute for a well connected system of on-road facilities.

Keeping in line with existing policies and character preservation, the Cecil County Bicycle Plan seeks to direct the most bicycle infrastructure investments into areas in and around existing population centers. These investments would be mainly in the growth corridor, which lies in the central portion of the County. According to the Cecil County Comprehensive Plan, these strategic areas are defined by concentrated areas including the County's eight incorporated towns (also priority investment areas) and designated growth areas on the Future Land Use Map. Growth areas currently have the necessary infrastructure to accommodate expansion in population and employment in a desirable and environmentally sensitive manner. By 2030 in terms of percentage of countywide change, the growth areas are projected to increase in population and employment by 80% and 85%, respectively⁶. In comparison, the rural areas to the north and south of the growth corridor are nominal. From a regional planning perspective Cecil County's growth area is part of a linear growth area along the I-95 and US 40 corridors stretching east to New Castle County, Delaware and west to Harford County, Maryland.

There are two levels of hierarchy for selected bicycle routes in an effort to create a balance between everyday trips (bicycling to school, work, or for errands) and other purposes such as touring. The following information explains Countywide Bikeways and Local Bikeways that are proposed. Cyclists are allowed and encouraged on all roads where they are not explicitly prohibited. A bikeway is a broad definition for all facilities that may be used by bicyclists. Roadways included meet at least two or more criteria.

Countywide Bikeways

Countywide bikeways hold more significance from a countywide perspective when they connect to or are located within the County's growth areas. These corridors would connect routes with existing and planned outdoor recreational opportunities (i.e. parks and open space). These are intended to carry the largest share of long-distance bicycle traffic in the County for transportation and recreation, and provide access to transit services, education and commercial uses, and municipalities.

⁶Maryland Department of Planning, 2010

Bicycle Network Criteria for Bikeways of Countywide Significance:

- North-south/ east-west connectivity
- Access to destinations of countywide significance
- Cross-jurisdictional connectivity
- Inclusion in other county or regional plans

Roadways that have been identified as preferred countywide routes complement existing state designated bike routes and provide direct on-road access to points of interest and residential and commercial land uses. Currently, avid bicycle commuters and recreational riders traverse several of these corridors. For example, a one-mile stretch of MD 276 would connect Rising Sun to Port Deposit by an estimated twenty-minute bicycle trip. The trip could be extended to points beyond Port Deposit utilizing the Harford-Cecil bus service, if it were extended to serve Port Deposit.

These highlighted routes also serve well from an inter-regional bicycle connectivity aspect. For example, Chester County, Pennsylvania, to the north of Cecil County is working to improve bicycle travel via on- and off-road facilities. Improving conditions along the countywide routes can accomplish connecting bicycle routes in adjacent counties to reach places listed below:

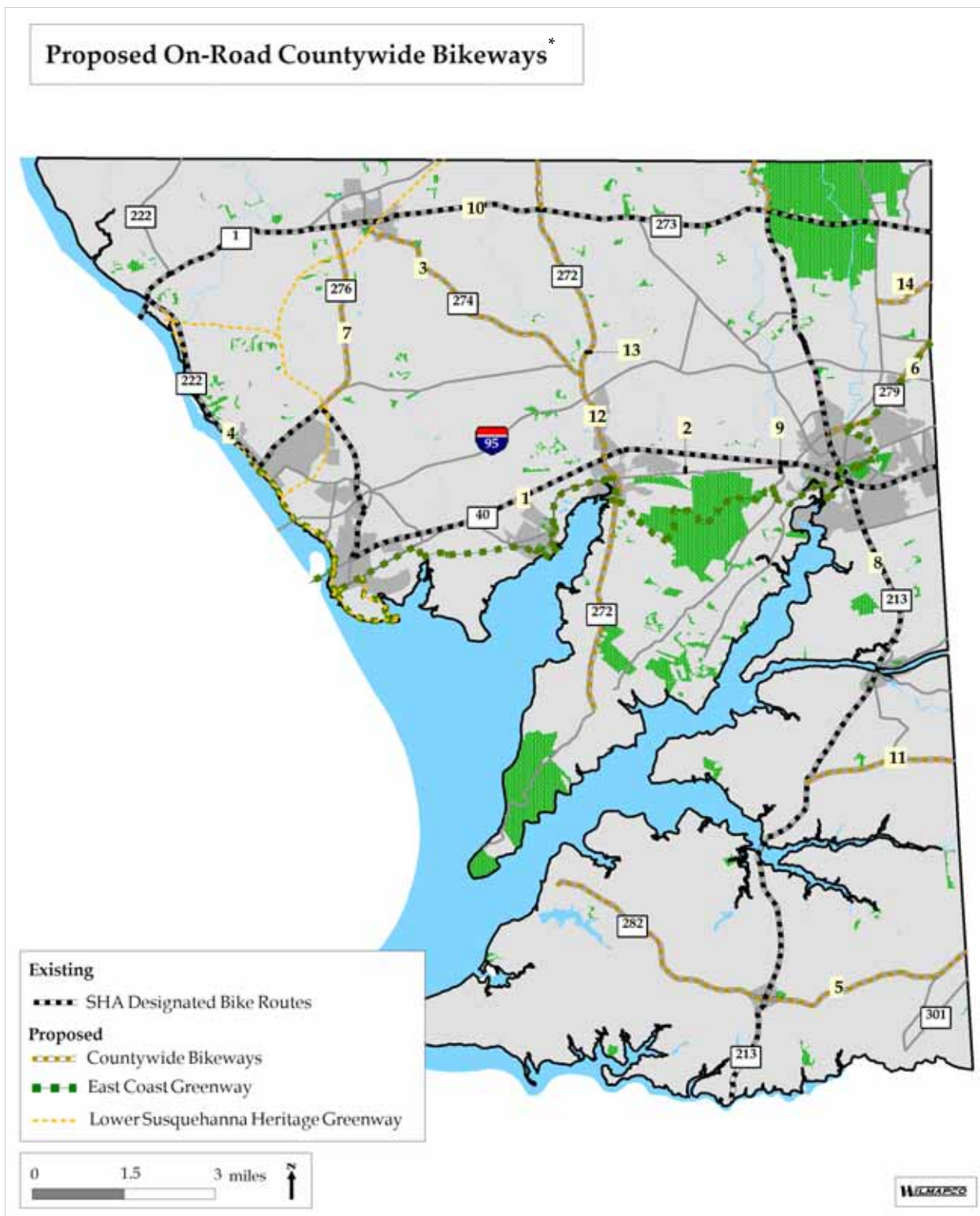
- | | |
|-------------------------------------|---|
| a. MD 222 - To Lancaster County, PA | g. US 40 – To Glasgow, DE |
| b. b. US 1 – To Oxford, PA | h. US 301- To Middletown, DE |
| c. MD 272 – To Nottingham, PA | i. MD 299 – To Millington |
| d. MD 213 – To Chester County, PA | j. MD 213 – To Chestertown |
| e. MD 273 – To Newark, DE | k. US 40 – To Havre de Grace via transit bus or taxicab |
| f. MD 279 – To Newark, DE | l. US 1 – To Harford County |

While regional coordination is required, connecting the routes from one jurisdiction to another creates a seamless network for those who desire to travel longer distances by bicycle. Countywide bikeways are also intended to connect into larger proposed trails systems that travel through Cecil County, which were previously described under Regional and State Bicycle Networks of Section 2: Existing Conditions.



Lower Susquehanna Heritage Greenway Trail in Conowingo, MD

Map 5:



*Refer to Map 2 for other off-road routes.

See next page for segments and treatments table.

ID	Countywide Corridors Segments and Treatments	
1	US 40 corridor, Delaware state line to MD 222	Repaint bicycle pavement markings. Add additional bicycle markings along existing shoulders. Paint dashed lines through major intersections, where feasible. Install bicycle-friendly rumble strips where applicable.
2	MD 7 Bridge, east of Patriarch Lane	Install warning signs at bridge approaches.
3	MD 274 from North East Rd. to Rising Sun town limits	Paint bicycle markings within shoulder and add signage. Install yield to bicyclists signage where shoulders transition into right-turn only lane. No changes to roadway.
4	MD 222 from US 1 to US 40	Install bicycle pavement markings and bicycle route /wayfinding/ warning signing. During reconstruction, add bicycle lanes.
5	MD 282 from Crystal Beach to Delaware State line	Install bicycle pavement markings and bicycle route /wayfinding/ warning signing.
6	MD 279 from Delaware state line to MD 213	Install bicycle pavement markings and bicycle route /wayfinding/ warning signing. Install bicycle-friendly rumble strips where applicable.
7	MD 276 from Port Deposit to Rising Sun	Install bicycle pavement markings and bicycle route /wayfinding/ warning signing. Install bicycle-friendly rumble strips where applicable.
8	MD 213 from MD 273 to Kent County, MD	Install bicycle pavement markings and bicycle route /wayfinding/ warning signing.
9	US 40 at Old Philadelphia Rd. (MD 7), intersection approach	Install share the road sign where shoulders disappear.
10	MD 273 from Delaware State line to US 1	Install bicycle pavement markings and bicycle route /wayfinding/ warning signing. No changes to roadway; wide shoulders present outside of Rising Sun.
11	MD 310/ Cayots Corner Rd., from MD 213 to Delaware state line	Install bicycle pavement markings and bicycle route /wayfinding/ warning signing.
12	MD 272 from Pennsylvania state line to Turkey Point	Install bicycle pavement markings and bicycle route /wayfinding/ warning signing.
13	MD 272 at Gilpin Falls Bridge	Construct separated bicycle path adjacent to historic bridge that links to Cecil College to the south and points north of the county.
14	Barksdale Rd from Old Barksdale Rd to Appleton Rd	Install bicycle lanes in short-term. In long-term construct separated shared-use path connecting Newark and Cecil County.

Local Bikeways

Complementary to countywide routes, local bikeways are mainly located in incorporated areas of Cecil County. These are the largest share of short-distance bicycle traffic in Towns for transportation and recreation, and access to destinations such as local parks, schools, transit stops, libraries, and community centers.

Network Criteria for Bikeways of Local Significance:

- Access to key local destinations and points in the county
- Connections to existing or planned bicycle facilities
- Linkages to transit services
- Inclusion in local plans

A host of proposed local connections have been suggested for local bicycle routes. In the upcoming sub-chapter, conditions for each Town is outlined along with a map of proposed local routes.



A bicyclist pedals along MD 7, East of NE Isles Drive in North East.

3.4 Town Summaries and Local Bikeways

After taking a very broad look at Cecil County's bicycling conditions, each of the Towns were assessed. The following information summarizes the challenges and opportunities for each of the eight municipalities, presents maps of proposed local bicycle routes, and documents concerns from residents.

Each sub-section also includes a table that summarizes segments and treatments proposed in each Town that comprise the proposed local network and correspond to each Town map presented. Some of these improvements are fairly straightforward to accomplish such as adding striping and narrowing travel lanes during a routine re-surfacing project. Other fixes may be more complex such as paving shoulders.

Cecilton, MD

Background

Cecilton is a small town with a population of 663 in 2010. The Town is largely residential with limited local employment opportunities, and is expected to remain that way. MD 213 passes residences and intersects Maryland Route 282 (Main Street) at the center of Town. Both state highways span roughly one-mile each through Town. According to Cecilton's comprehensive plan, the Town would like to see a boulevard approach if MD 213 is dualized; however, there are no current plans to do so. As the state highways enter Cecilton, the speed limit drops to 30 miles per hour. Upon exiting town limits, posted speed climbs back to 55 miles per hour.



MD 213 southbound, outside town limits

Challenges and Opportunities

Presently, notable volumes of trucks pass through via MD 213 making conditions unwelcoming for bicyclists. Despite existing challenges, the designated state bikeway of MD 213 routinely carries recreational group bicycle rides along its shoulders. Outside of town limits, bicycle route signage can be seen, but is lacking through Town. Based on bicycle level of comfort scores for Cecilton, the roadway section in the most need is the western stretch of MD 282 from Town Hall to Cecilton elementary school. Less than one-half mile in distance, this portion has a 25 miles per hour speed limit, and intervals of parallel parking, but not enough width to accommodate a motorist and a bicyclist riding side-by-side. A shared lane marking, also known as a sharrows, could be installed along MD 282, to bring attention to bicycle use. For an additional enhancement, the "Bicycles May Use Full Lane" sign could be used to alert motorists that bicyclists may occupy the travel lane. From a bicycle tourism perspective, long distance scenic roads are attractive along with destinations near Cecilton such as the historic Mount Harmon Plantation. However, rural roads such as Mount Harmon Road, off of MD 282, are challenging due to travel speeds and lack of shoulders, and several obstructed sight lines. Bicycle commuting may still remain low, but overall bicycle usage has the potential increase because of touring and recreation.

Recommendations

The Town has added a bicycle rack with the recent development of the Royal Farms gas station, at the intersection of MD 213 and MD 282. Other locations in Cecilton that should have bicycle parking include Town Hall, Cecilton Elementary School, and shops. Cecilton Elementary School is a possible candidate for the Safe Routes for Non-Drivers element of the Transportation Alternatives Program established under the latest federal transportation legislation. The program is administered by MDOT. The program funds

could be used to fund bicycle racks, signage, address speeding issues, and other safety improvements in Cecilton for up to one or two miles of the school. Apart from the program, new bicycle rack installations should be pursued.

The proposed local bikeway through Cecilton is a short off-road segment that connects property behind Frisby's Meadows into Cecilton Park. The Town desires more usage of the existing trail through the park, and providing an additional connection will help increase usage. It is important that bicyclists are able to travel to the Town and points beyond. Surrounding points of interest include unincorporated areas of Earleville to the west and Warwick to the east. Roughly 15 miles from Middletown, Delaware, bicyclists would benefit from future separated side paths adjacent to the rebuilt US 301. Just 20 miles from Elkton, Maryland, long distance bicycle trips along MD 213 connect the two Towns. Traveling westward past Earleville, bicyclists can also reach Crystal Beach. Bicyclists can travel about three and a half miles south of Cecilton into Kent County, Maryland and enjoy the scenic views via bicycle in and around the Town of Galena. Also, each year a bicycle tour of Kent County is offered. All of these routes provide linkages for inter-county bicycle travel.

Currently, boating visitors to the area borrow bicycles from various marinas. Informal bicycle rentals could be formalized and advertised through the Cecil County Department of Tourism. Cecilton should also consider place making measures such as banners that promote bicycling during warm weather months, to encourage bicycle use.



MD 282 near Cecilton Elementary

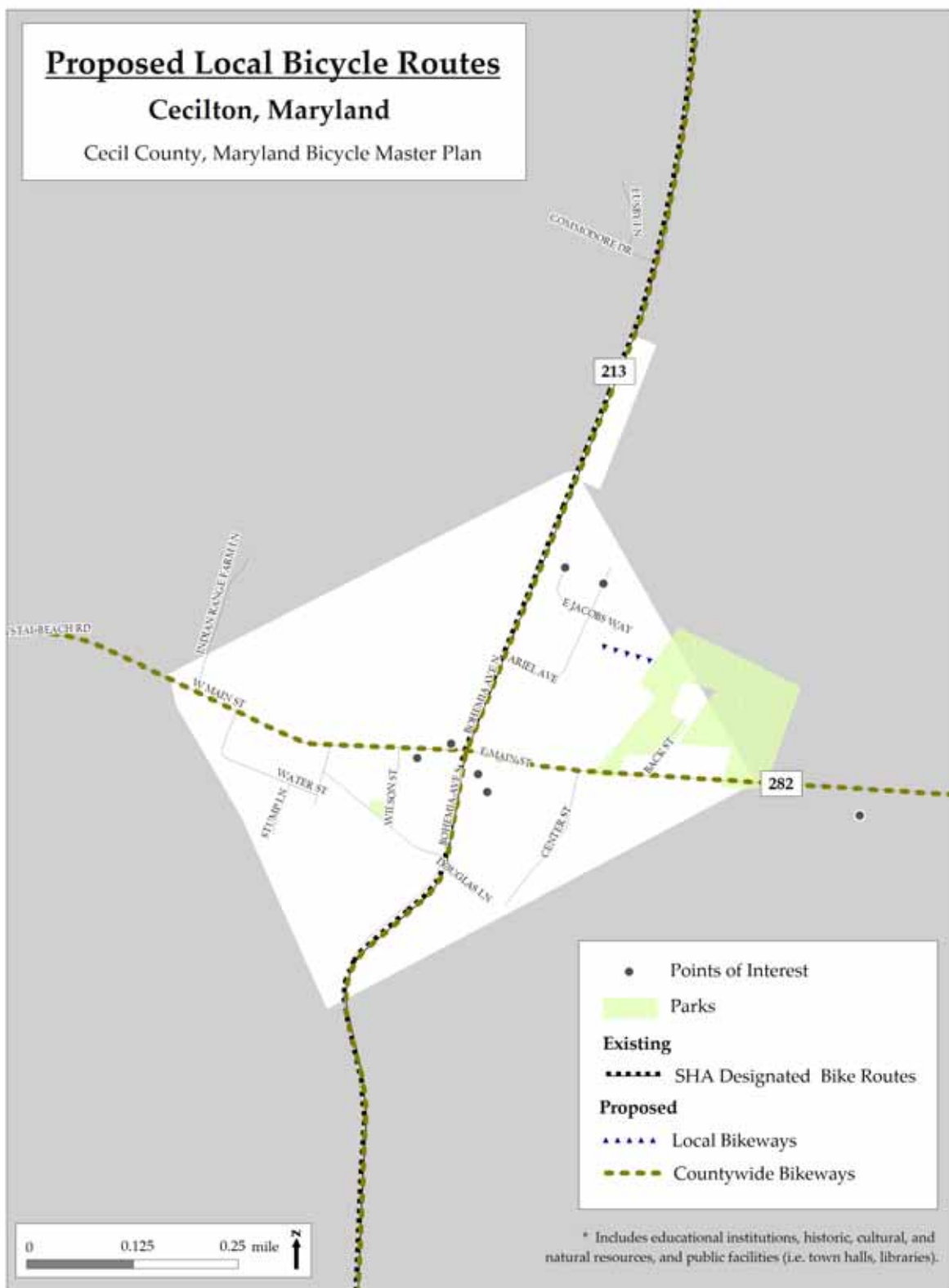


MD 282 near Cecilton Town Hall

Cecilton Segments and Treatments

MD 282	Install sharrow markings and bicycle signage.
MD 282	At end of town limits provide wayfinding to/from Earleville, Warwick, and Middletown.
MD 213	Install bicycle pavement markings and bicycle route /wayfinding/ warning signing.
Off of MD 282/ near Cecilton Park	Use property behind Frisby's Meadows to connect a shared-use separated path to Cecilton Park.

Map 6:



Charlestown, MD

Background

Charlestown is located at the head of the Chesapeake Bay on the waterfront and a few miles west of North East along the MD 7 corridor. Fewer than one dozen miles of road are located within town limits and most are municipal owned and maintained. Roads within the old town section of Charlestown are very narrow, which makes sharing the road a necessity. Improvements along MD 7 would link bicyclists between Charlestown and North East. Charlestown also has a goal to have trails that connect into their local parks.

Challenges and Opportunities

Major developments in the future are expected to occur on the north side of MD 7 in Charlestown. Planning in advance for non-motorized connections will make the Town more accessible as it gradually expands, and also to connect the northern and southern parts of Town along MD 7. The MD 7 corridor could provide bicyclists' connectivity to US 40 and the proposed countywide bikeway of MD 272 and points further north and south of North East. However, MD 7 approaches into Town do not provide ideal comfort for bicyclists. Connecting the Town with the US 40 corridor would provide access to transit services and extend a bicyclists' travel shed. Some areas of concern for residents are safe connections to the Charlestown Elementary School located on MD 267 (Baltimore St.), near Canvasback Lane. MD 267 provides a direct connection to the educational facility, but lacks dedicated on-road space for biking. Town residents have also stated that bicycle education is needed, especially for adult motorists.

Recommendations

As the main thoroughfare into Town, MD 7 could be enhanced for bicyclists comfort and greater sense of safety. Due to lack of width, the corridor does not accommodate bicycle lanes. However, signage such as "Share the Road" or "Bicycles May Use Full Lane" would help to create safer road conditions for motorists and bicyclists. The historic district of Charlestown is on the National Register of Historic Places and has more than



Photo: Google Maps

MD 267 near Charlestown Elementary



Photo: Google Maps

MD 267 near Clearview St.



A view towards the North East River

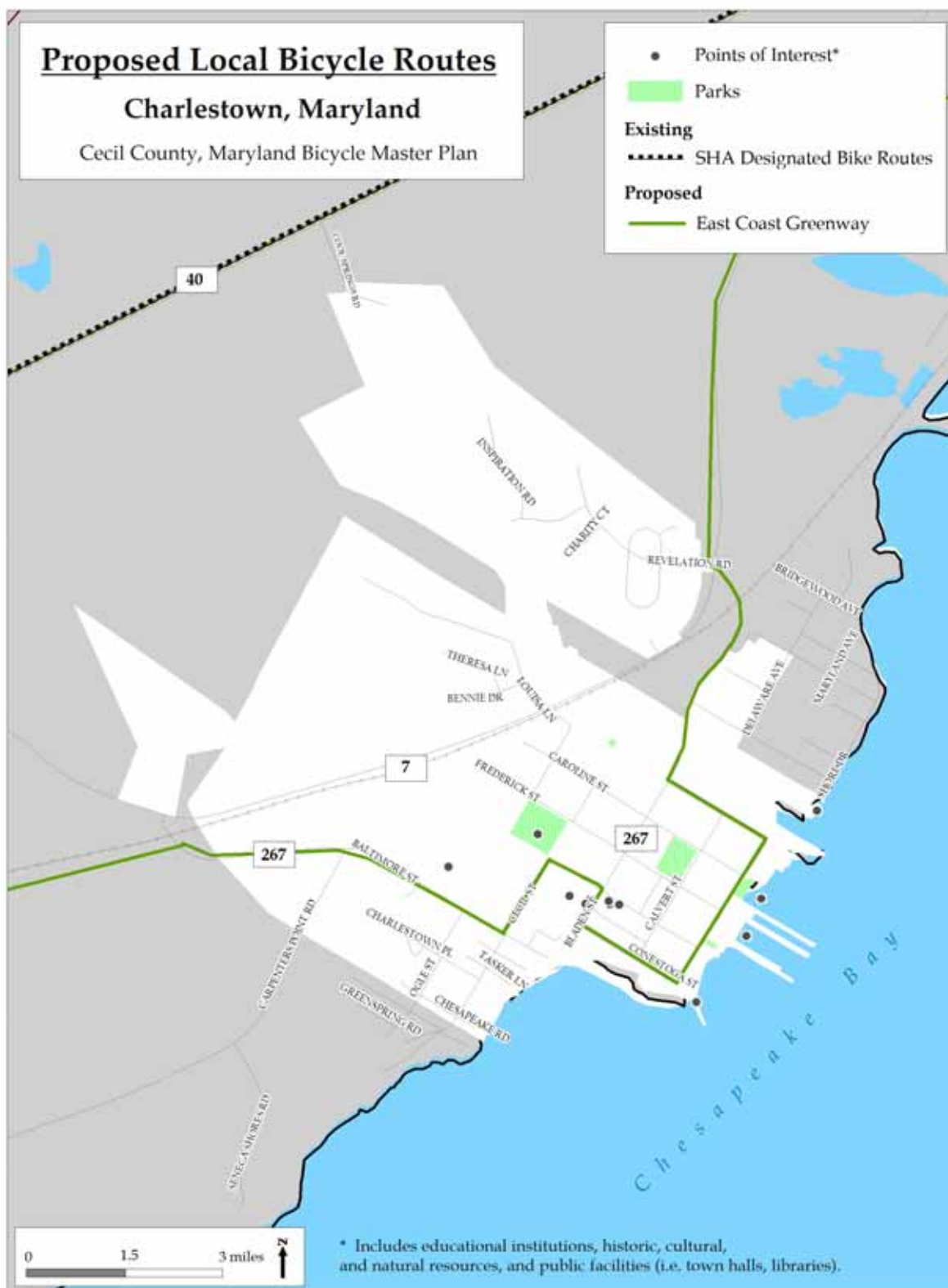
twenty historic sites and structures to preserve. The Town has a historic walking route, which should be adapted for biking to attract bicycle tourists. The proposed East Coast Greenway that is aligned along MD 267 should also be signed, along with adding other directional bicycle signage. Where shoulders are wide enough along 267, such as near Clearview Street, shoulders should be treated with bicycle route markings for usage as a bikeway.

The Town of Charlestown is presently beginning planning efforts for a linear path system that will be inter-connected by a series of facilities for joggers, pedestrians and bicyclists. The pathway network could eventually connect to a Cecil County trail system via the East Coast Greenway which, when completed, will provide a walking and biking path from Elkton through Charlestown and extend to the Susquehanna River in Perryville. As the Charlestown Greenway Plan is developed, recommendations for on- and off-road bicycle facilities will be further examined.

Charlestown Segments and Treatments

MD 7 approaches into Town	Install bicycle warning signage. Other enhancements pending the Greenway Plan currently under development.
MD 7 between MD 267 (Baltimore St.) and Bladen St.	Install Bicycles May Use Full Lane signage. Other enhancements pending the Greenway Plan currently under development.
MD 267 through Town	Provide signage for the East Coast Greenway and install other directional bicycle signage.

Map 7:



Chesapeake City, MD

Background

Chesapeake City has a goal to improve biking to and within its village town center area. The Town is compact and walkable with the opportunity to become more bikeable. The northern portion of the Town is separated from the southern portion by the C and D Canal and is connected by the high-level MD 213 Bridge. A ferry service also connects the north and south sides on a seasonal basis.

Challenges and Opportunities

The MD 213 Bridge is a major challenge, because most bicyclists that ride across do not feel a sense of comfort. MD 213 through the Town is designated as a state bike route and is proposed to function as one of the County's bike routes for longer distance trips. From the curb of the four-foot wide sidewalk, there is no physical separation between travel lanes (one in each direction) that carry vehicles at 50 miles per hour. Bridges provide critical connections within the transportation network and are built to last 50 to 100 years; the MD 213 Bridge may not be reconstructed for many, many years to come.

Roads north of the Canal serve bicyclists better in comparison to the south end of Town. MD 213 near Hemphill Street is a challenge due to speeds, turning movements, and sight distances in this area. A portion of Second Street, and along N. St. Augustine Road are also uninviting to bicyclists. Other sections requiring improvements include MD 285 and near the MD 286 ramp. The bicycle level of comfort declines along Second Street, east of Bohemia Avenue. While a sidewalk is present, riding on sidewalks is prohibited under state law unless there is a local ordinance that grants consent; there is no such ordinance in Chesapeake City. Also, bicycle warning and directional signage is lacking throughout the Town. There is also a lack of adequate space for bike lanes or shoulder facilities.

Recommendations

There is no reasonable opportunity to retrofit the MD 213 bridge by narrowing travel lanes and extending the sidewalk. In the



Photo: Google Maps

MD 213 Bridge



Photo: Google Maps

MD 213 at MD 286



2nd Street

short-term, advisory signage and bicycle railings could be installed to keep cyclists on the sidewalk, create a barrier between fast moving vehicles, and provide a better sense of security. ADA accessible curb ramps should be installed at both ends of the bridge's sidewalk. The responsibility of short-term repairs and reconstruction in the long-term falls under the purview of the U.S. Army Corps of Engineers. In the meantime, researching best practices, safety education for motorists and bicyclists using the bridge, and preparing for future opportunities should be completed.

Many streets in Chesapeake City could benefit from shared lane markings. For example, however, where the speed limit advances to 40 miles per hour along Second Street, shared lane markings should not be installed. Portions of the roadway network that fall below the speed threshold of 35 mph should be considered.

There are several planned shared-use pathways that will accommodate both bicyclists and pedestrians in Town, identified in the Town's recent Revitalization Plan. One project is adjacent to MD 213, a separated pathway will connect the southern side of Town to the Bohemia school complex via a utility corridor. Another project underway will expand 1.8 miles of the C and D Canal Trail that connects the historic towns of Chesapeake City and Delaware City, Delaware. Once constructed, the trail will attract tourists from within and outside the region. Instead of sweeping by the Town along MD 213, marketing could target bicyclists to visit sites such as the Canal Museum, historic sites, and storefronts. It has also been noted that a bed and breakfast establishment presently has bicycle loaners for its overnight guests. Without the sophisticated technology required for large bike-share systems, this could become a more formal program.

Recently, a wave-design bicycle rack was installed in the Ferry Slip Park. Future rack installations should include preferred rack designs that support the bicycle in at least two places. Bicycle parking is needed in other locations such as along Bohemia Avenue, the overlook at the end of George Street, and the school complex. Racks for bike parking at the school complex and additional pathway connections that link to the proposed pathway should be installed as well.



Overlook at end of George St.

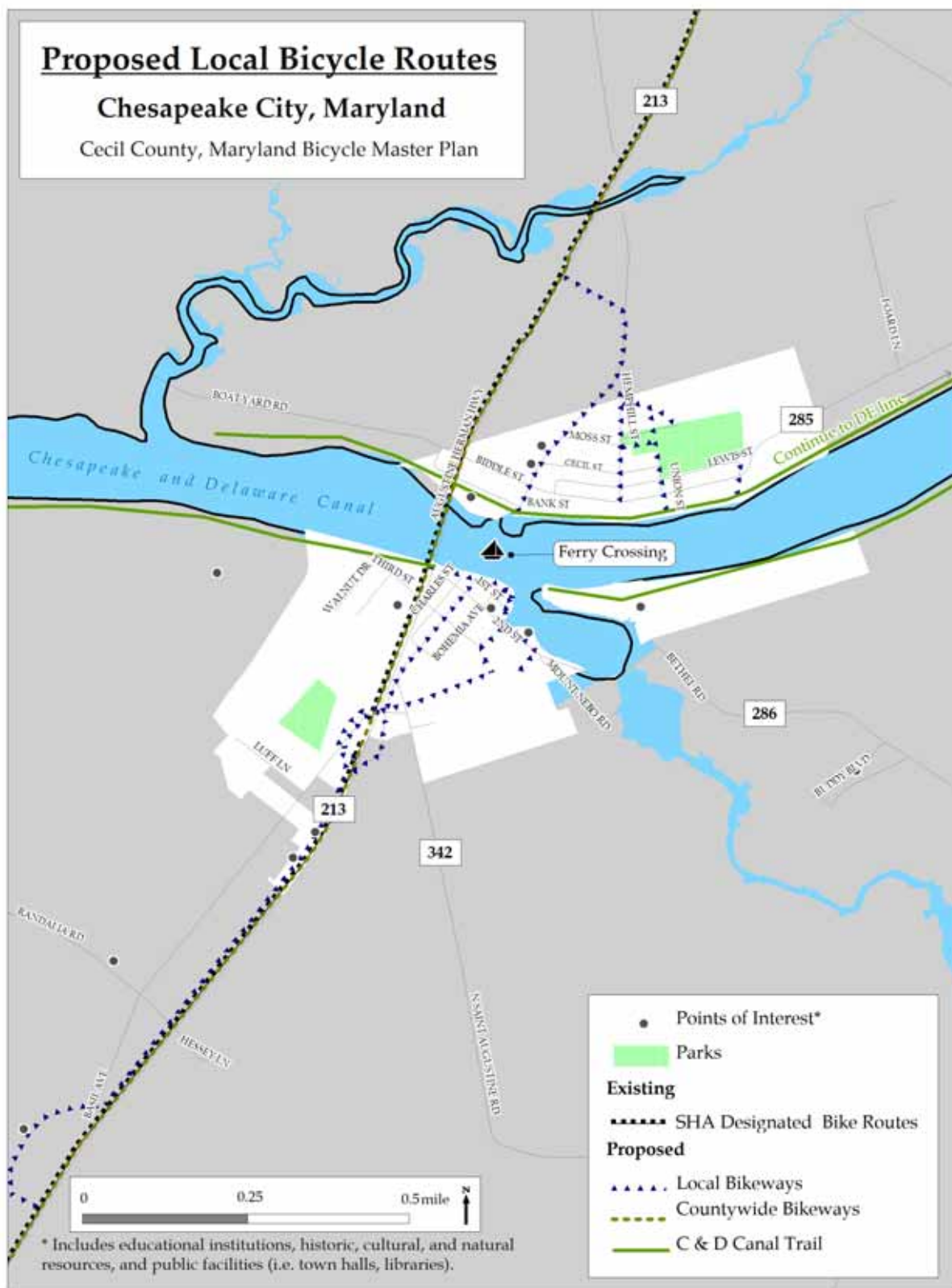


Bicycle rack at Ferry Slip Park

Chesapeake City Segments and Treatments

MD 213 Bridge	Install curb ramps on the bridge sidewalk and install bicycle warning signs. When reconstructed, provide at least 5-6-ft of paved shoulder with a barrier between the travel lane.
MD 213 from Charles St. to Basil Ave.	Construct shared-use path and install wayfinding signage to points in Town.
2nd St. from Charles St. to Bethel St.	Provide shared lane that connects to off-road bicycle path.
Hemphill St. from Biddle St. to MD 213	Stripe bicycle lane and install signage.
Chesapeake and Delaware Canal Trail (north and south sides)	Enhance C& D Canal Trail and access points, and improve connection to ferry.
Union St. from Biddle St., north to Grayson Ave.	Provide a shared-use pathway to connect to Titter Park.
George St. from MD 213 to First Street.	Provide shared-use path and wayfinding signs to connect to waterfront.
Lock St. from C & D Canal to MD 213	Provide trail and wayfinding signs to connect into C & D Canal.
Titter Park	Shared-use pathways through the park that connect to Union St. Park along the canal.
Second St.	Connect Chesapeake Inn across Second St. to future site of possible Village Park.

Map 8:



Elkton, MD

Background

The Town is the eastern gateway to scenic Cecil County and Maryland's upper Eastern Shore from the more urbanized Delaware Valley. The alignment for the East Coast Greenway passes through Elkton and its proximity to regional attractors is advantageous in becoming a bicycle tourism destination. Bicycle tourism is an increasing industry and could spur economic development for the growing Town. Elkton's small size and mix of medium density makes bicycling and walking between various uses ideal. Elkton's Main Street corridor is a major destination and could benefit from improved bicycle access.

In 2010, the Town of Elkton began working with an advisory committee to develop strategies and actions to improve its bicycle-friendliness. Shortly after the Elkton Bicycle Plan was adopted an Advisory Committee was formalized to advise the Town on bicycle related issues and initiate the plan's implementation. The Elkton Town Council also formally adopted May as Bike Month.

Challenges and Opportunities

Many residents expressed they do not bicycle frequently because they are not comfortable with heavy car traffic and lack of bicycle facilities. Several corridors and intersections in Elkton were identified as having challenges for bicyclists including MD 213, MD 268, US 40, and MD 213 at US 40. Maryland SHA has designated two bike routes through Elkton (MD 213 and US 40). While bike lanes are not present along these routes, both have shoulders and 'Share the Road' signage. There are many narrow shoulders along roads in Elkton that on-road restriping can solve.

Recommendations

Elkton's proposed bicycle network consist mostly of shared lanes and shoulder bikeway facilities. Most segments have adequate shoulder width to create separate spaces for bicyclists, while others have wide lanes and slow speeds that would be more ideal for shared lanes. The CCBP considered linkages that would connect bicyclists between points of interest in Elkton and key destinations out into the County. The proposed network also connects into existing regional bicycle routes such as the East Coast Greenway. Countywide bikeways of MD 213 and US 40 are high priorities for connecting bicyclists into Towns such as Elkton. Proposed local bikeways for connecting bicyclists included MD 281 (Red Hill Rd.)



North St. Bridge



MD 213 at Howard St.

and MD 268 (North St.). Due to lack of bicycle parking roughly two-dozen locations for new racks are recommended. Locations include government buildings, schools, the library, Elk Landing, and outside shops along the US 40 corridor. To date, the Elkton Library bicycle rack has been updated from an elementary school rack to a wave bike rack. Linking bicycling with existing and future transit services in Town is essential, particularly as the redevelopment of the Elkton Train Station nears. The Town's Bicycle Advisory Committee is working to install more racks for bicycle parking in the short-term. Also, it was found that bicycling is not encouraged on a consistent basis, which creates a need for emphasis on improvements such as bicycle safety education and encouragement.

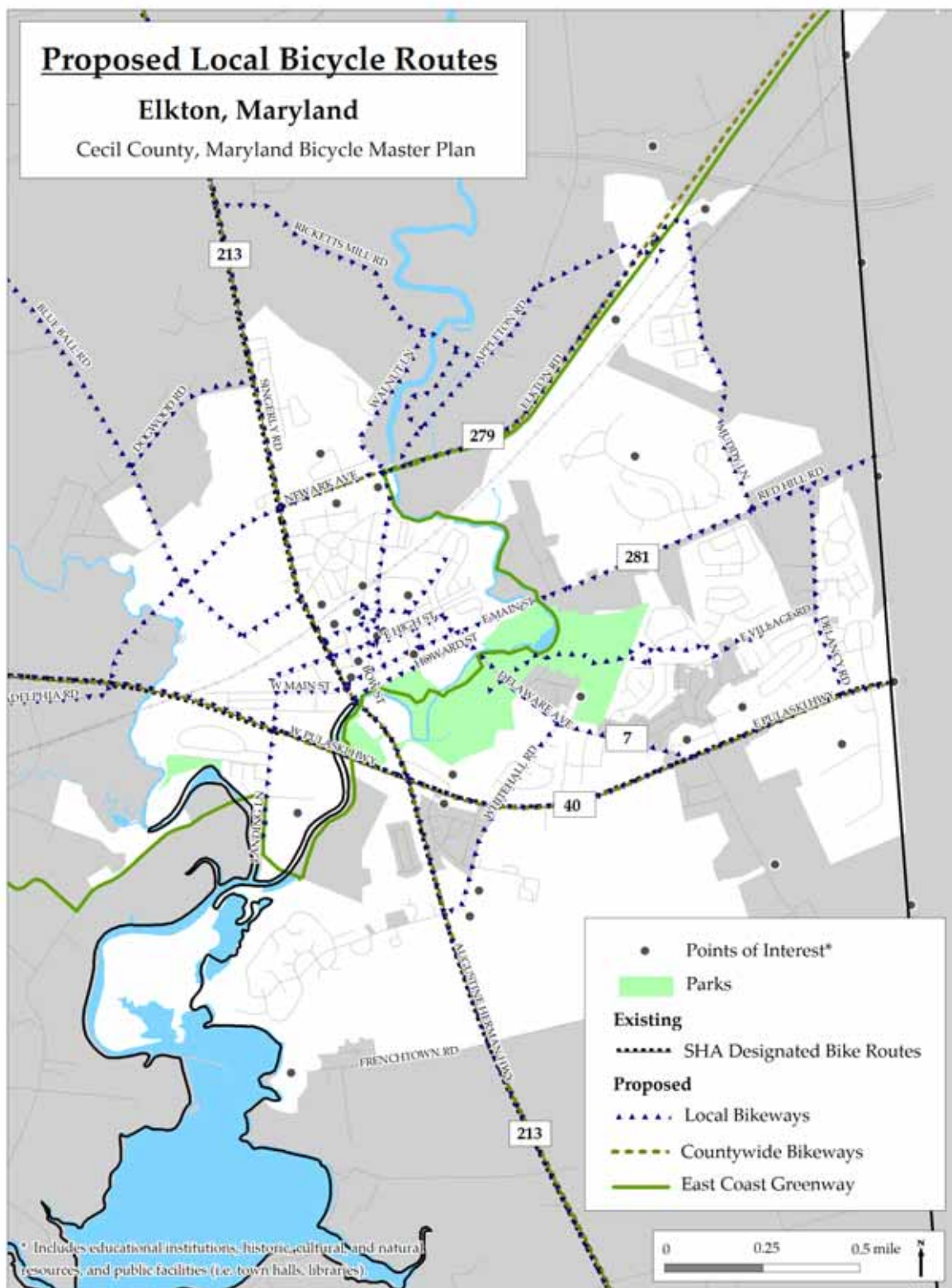


Upgraded bike rack at Elkton library

Elkton Segments and Treatments

Rickettsmill Rd. from Appleton Rd. to Walnut Lane	Install sharrow markings and bicycle signage.
Blue Ball Rd. from MD 279 to Dogwood Rd.	Install sharrow markings and bicycle signage.
MD 213 from Rickettsmill Rd. to Frenchtown Rd.	Paint bicycle markings within shoulder and install signage. Between Main St. and US 40, consider shared lanes.
Howard St. from MD 213 to Delaware Ave.	Install sharrow markings and bicycle signage.
Main St. from MD 213 to MD 7/ Delaware Ave.	Install sharrow markings and bicycle signage.
Red Hill Rd. from MD 7/ Delaware Ave. to Patriots Way	Paint bicycle markings within shoulder and install signage.
MD 7/ Delaware Ave. from Main St. to US 40	Paint bicycle markings within shoulder and install signage.
MD 268/North St. from Main St. to MD 279	Install sharrow markings and bicycle signage.
Railroad Ave. from MD 268 to MD 213	Install sharrow markings and bicycle signage.
High St. from MD 268 to MD 213	Install sharrow markings and bicycle signage.
US 40 from MD 279 to Delancy Rd.	Paint bicycle markings within shoulder and install signage.
Whitehall Rd. from MD 213 to MD 7	Install sharrow markings and bicycle signage.
MD 279 from US 40 past Appleton Rd. towards state line	Paint bicycle markings within shoulder and install signage.
Appleton Rd. from MD 279 to Rickettsmill Rd.	Install sharrow markings and bicycle signage. Install bicycle warning signs.

Map 9:



Map Source: Elkton Bicycle Plan, 2010

North East, MD

Background

North East is centrally located in Cecil County at the head of the Northeast River and the Chesapeake Bay. Outlined in North East's Comprehensive Plan, the Town aims to provide for increased and easier bicycle travel within and through the Town. Behind Chesapeake City, North East is the second busiest tourist town. North East attracts visitors to restaurants, antique shops, a waterfront park, and the nearby Elk Neck State Park. This is in step with the Town's goal to expand their economic base through local tourism opportunities. Bicyclists traveling longer distances also have the option to journey to Elkton and Perryville, both roughly seven miles east and west, respectively, as well as Charlestown roughly three miles to the west.

Challenge and Opportunities

US 40 and MD 272, two heavily traveled corridors, intersect in the Town. Both roadways are state designated bike routes, and are proposed as countywide bikeways. These routes are challenging for bicycle travel as US 40 and MD 272, from US 40 to I-95, carry significant amounts of truck traffic. Similar to US 40, MD 272 is planned for long-term improvements. When the roadway is expanded, continuous bicycle lanes should be provided. Many other roads in North East are municipal-owned and will benefit from bicycle upgrades to enhance safety. Enhancements should improve access and movement through the central business district.

Bicycle level of comfort scoring throughout North East is varied by both small and large segments of road. Entering the Town from the south or east is much less cumbersome than from the west or north. Some areas particularly tough for bicyclists are along MD 272, north of US 40 and near the railroad overpass; the intersection of S. Mauldin Avenue at MD 7; and near the entrance of the Northeast Plaza Shopping Center.

Recommendations

Both existing and planned greenways are located near and through North East, such as the Mason-Dixon Trail. Presently,



Main Street



Mechanics Valley Rd, south of US 40



MD 272, near Nazarene Camp Rd.

there is a 1.4 mile trail gap between the North East Park and the Town of Elkton. The segment travels through public property and discussions about closing the gap will begin soon. However, the trail may only be suitable for pedestrians and may not allow for bicycle usage. Despite the lack of supporting signage, the East Coast Greenway alignment travels through the Town via Irishtown Road, along Main Street, and Cecil Avenue. A previous proposal included adding a bikeway along MD 7 to North East Isle's development located off of MD 7, near Amtrak's corridor. Since the 2004 Comprehensive Plan, little progress has been made. Efforts should be made to construct and sign greenways previously planned though Town.

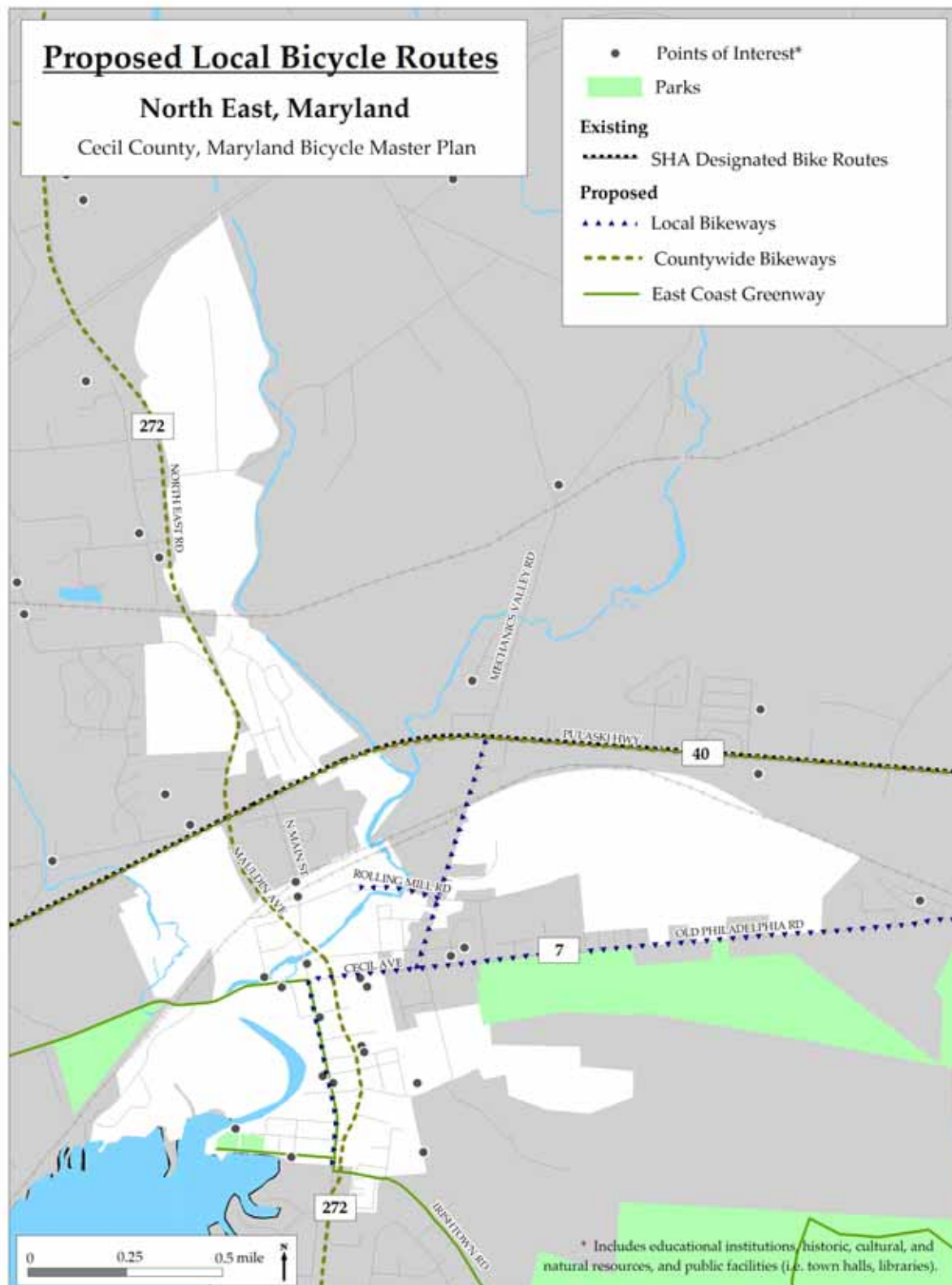
Proposed local bikeways through Town were selected to complement state bike route designations, countywide bikeways, and greenways. Nevertheless, there are some challenges with the local proposals. For example, Mechanics Valley Road is a minor collector that had just over 7,000 vehicles per day at Bridge CE -101 over the Amtrak rail line in 2011. This corridor would provide an alternative to using MD 272 with much higher traffic volumes. Shoulder facilities are present along the road south of US 40, but disappear south of Mallory Way to MD 7. The portion without shoulders is roughly 0.3 miles with 25 miles per-hour posted speeds. In the long-term, when Mechanics Valley Road is reconstructed, continuous bicycle lanes or shoulder bikeways should be provided between US 40 and MD 7. Another local bikeway includes Main Street which provides access to government buildings and retail sites. Main Street has one lane with parking on both sides, and slow speeds due to heavy pedestrian traffic. The corridor could have a bicycle lane installed, but it would create a conflict between bicyclists and the door zone. Another option is to add sharrows in the center of the travel lane, along with signage. These enhancements should be considered in light of strategies that can increase bicycle tourism to North East.

Future integration of bicycling and transit in North East should also be considered. The Town has a goal to increase the number of bus stops throughout existing neighborhoods, commercial and employment areas, and the Town's growth area. A Transit-Oriented Development (TOD) Plan is presently underway in North East that will support existing bus transit service and future commuter rail and transit hub service. Both bicycle usage and transit ridership can be strengthened in North East, perhaps easier than in some other Towns in Cecil County.

North East Segments and Treatments

MD 272/Main St. (southbound) between MD 7 (Cecil Ave.) and Irish-town Rd.	Install sharrow markings and bicycle signage.
MD 272/Main St. between MD 7 (Cecil Ave.) and US 40	Maintain paved shoulders. Install Share the Road signage. When reconstructed, provide bicycle lanes.
D 272/Main St. (northbound) between Irishtown Rd. and MD 7 (Cecil Ave.)	Paint bicycle markings within shoulder and install signage. Provide spot treatment shoulder paving for uninterrupted ride, where necessary.
MD 7/ Cecil Ave. (on-road improvements)	Install Share the Road signage.
MD 7/ Cecil Ave. (off-road improvements)	Sign East Coast Greenway and provide off-road connection from future developments west Main St. to the Town's core.
MD 272 and US 40	Intersection improvements including restriping and bicycle signal detection. Pedestrian facilities should be included as well.
MD 272 Bridge over Amtrak	When reconstructed, provide bicycle accommodations with at least 4 ft. of sidewalk or shoulder.
MD 7 from Mechanics Valley Rd., east to Elkton	Install bicycle signage and wayfinding signs with distance to Elkton.
Rolling Mill Rd. from Mechanics Valley Rd. to proposed shared use trail (Elk Neck)	When Rolling Mill Bridge is reconstructed, provide separated accommodations for bicyclists. Install way finding signage that directs users to nearby trail system.
US 40, entrance/exit to Timberbrook subdivision	Reconfigure right-in, right-out channelization to allow uninterrupted use of shoulder by bicyclists.
Mechanics Valley Road between US 40 and MD 7	Install Share the Road or Bike May Use Full Lane signage. When reconstructed, provide at least 4-ft of paved shoulder, if feasible. Constraints along this roadway may preclude widening.
MD 272/S. Mauldin Ave. and MD/7 Cecil Rd: Elk Neck Trails access points	Improve access and provide wayfinding signage to Elk Neck State Park and Trails. Enhance the existing and proposed trail system to facilitate bicycle usage.

Map 10:



Perryville, MD

Background

The Town of Perryville is located on the Susquehanna River, and is one of several Cecil County's towns that anticipate major growth as a result of the military-base relocation and closure activities of nearby Aberdeen Proving Ground. Presently, Perryville has the only active train station that provides service via the MARC commuter rail in Cecil County. MARC commuter train ridership from Perryville has increased over recent years. The Town wants to promote local and regional accessibility and mobility, via walking, bicycling and transit.

In 2012, the Perryville Greenway Plan was developed to guide the enhancement of greenways, bicycle routes and pedestrian facilities in Perryville. The Greenway Plan was also developed in conjunction with the Towns' Transit Oriented-Development Plan (TOD) to better link bicycling and public transit to increase usage and ridership. The Town has a standing Greenway Committee that oversees the Plan's progress. Several on-road segments recommended for Perryville are directly from the Greenway Plan.

Challenges and Opportunities

Major gaps in bicycle facilities force people to ride bicycles on sidewalks illegally, or choose not to bike at all. In a transportation survey, Perryville residents rated bike paths as inadequate and indicated that lack of bikeways was a primary reason for not bicycling or bicycling more. This was the case despite US 40 and MD 222 corridors through Town designated as state bicycle routes. Portions of US 40 are signed as a bicycle route and include shoulders; however, the shoulders are narrow and there are no bike route signs along MD 222. Major roads lack bicycle signage and pavement markings that limit the ability for residents to reach destinations with ease via bicycle. North of US 40, in particular, there are few bicycling connections. The Maryland Transportation Authority (MDTA) and SHA are completing a I-95/MD222 Concept Study, which includes options for bicycle and pedestrian facilities.



Wide travel lanes along Broad St. near Perryville Train Station.



A trail meanders near the Susquehanna River.

In accordance with the Town's adopted TOD Plan, Perryville made a request through the Recreational Trails Program to consider the property at the corner of US 40 and MD 222 (the former Honda dealership) be developed as a trailhead and transit facility to accommodate bicyclists and pedestrians wishing to cross the Hatem Bridge. The location was also suggested to function as a transit layover for busses in the western part of Cecil County. However, this proposal was determined not feasible under present conditions.

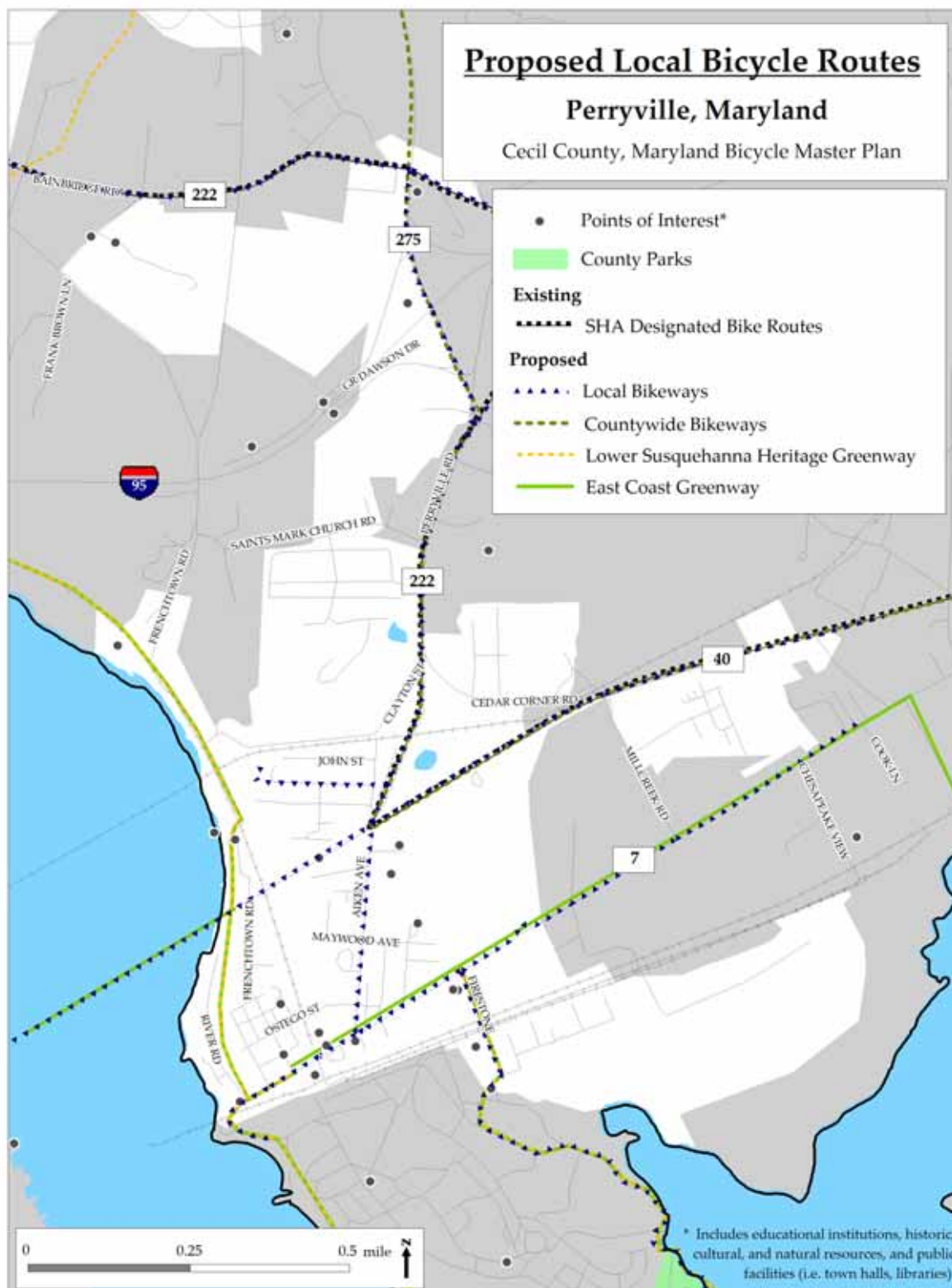
Recommendations

Priority connections include working with MDOT and MDTA to provide access across the Susquehanna River and coordinating with SHA on connections along and across MD 222 and US 40. Other priority projects include completion of the Lower Susquehanna Heritage Greenway and East Coast Greenway. To date, the only section of the East Coast Greenway built in Cecil County is the trail through Perryville Community Park and Perry Point, and no sections have been designated by the East Coast Greenway Alliance. The greenways in the Perryville Community Park, Perry Point and paralleling Frenchtown Road are part of the Lower Susquehanna Heritage Greenway. Perryville has a chance to capitalize on current opportunities through these existing regional greenway routes, as well as the Mason-Dixon Trail. The Greenway Plan also encourages Perryville to continue to explore the potential bicycle and pedestrian access via a water taxi to provide transportation to Havre de Grace and Port Deposit, and to attract active recreation tourism to the area when combined with connecting shared-use pathways. To complement off-road trail alignments, several stretches of road are highlighted for future bicycle lanes or shoulder bike-ways, including MD 222 and sections of US 40.

Perryville Segments and Treatments

Bainbridge Rd. from Port Deposit to MD 222	Restripe road to provide bicycle lane.
MD 222 from Bainbridge Rd. to Blythedale Rd.	Restripe road to provide bicycle lane. Limits might be reduced if Greenway from Casino to Outlets Connector is constructed.
Blythedale Rd. from Bainbridge Rd. to MD 222	Restripe road to provide bicycle lane.
MD 222 from Blythedale Rd. to US 40	Restripe road to provide bicycle lane.
US 40 from Winch Rd. to Hatem Bridge	Mark shoulder as bicycle lane. Remark intersections to include bike facilities through turn lanes.
Principio Furnace Rd. from Cook Ln. to Coudon Blvd.	Mark with shared lane markings or narrow lanes to include bike lane. Might be eliminated if MD 7, East Coast Greenway is implemented.
Broad Street from Coudon Blvd. to Ikea Way	Restripe to provide bike lanes. Might be eliminated if MD 7, East Coast Greenway is implemented.
Ikea Way from Broad St. to Marion N. Tapp Parkway	Mark with shared lane markings. Might be eliminated if planned Lower Susquehanna Heritage Greenway and East Coast Greenway is implemented.
Marion N. Tapp Parkway from Ikea Way to Avenue A	Mark with shared lane markings. Might be eliminated if planned Lower Susquehanna Heritage Greenway and East Coast Greenway is implemented.
Avenue A to Front St.	Restripe to provide bike lanes. Might be eliminated if planned Lower Susquehanna Heritage Greenway and East Coast Greenway is implemented.
Broad Street from Front St. to Ikea Way	Mark with shared lane markings. Space might exist to combine shared lane markings on one side with a bicycle lane on the other
Aiken Ave. from Broad St. to US 40	Mark with shared lane markings.
Franklin St. from MD 222 to end	Mark with shared lane markings.
Hatem Bridge	Coordinate with Maryland DOT and MDTA to determine preferred option for bicycle access.

Map 11:



Data Source: Perryville Greenway Plan, 2012

Port Deposit, MD

Background

Just six miles north of Perryville, Port Deposit is also located on the Susquehanna River covering roughly a one-mile stretch along MD 222. The historic and slow-paced Town has historic homes and scenic views that would draw touring bicyclists. Other points of interest include the Bainbridge and Paw Paw Museums, and the Tome School Historic District. Portions of the Susquehanna State Park are located roughly two miles north of Port Deposit, which provides recreational opportunities for hikers, bikers, and other outdoor enthusiasts. A significant goal is to increase visitation to the Town and increase the number of users to the Lower Susquehanna Heritage Greenway, which is also part of the John Smith and Star Spangled Banner trail systems.



MD 276, south of Fiske Rd.

Challenges and Opportunities

Moving residents and visitors via bicycle with ease is challenging. Approaching the Town from points north, and blind curves, such as where Main Street turns into Bainbridge Road, are tough even for avid riders. Steep hills through the Town may also be intimidating for more casual riders. Residents stated that needed road connections for bicycles include Bainbridge Road and MD 222 (River Road). MD 222 is a state designated bicycle route, but has not seen many physical improvements to enhance safety. Along MD 276, the posted speed limit drops to 25 miles per hour with closer proximity to Main Street. Shoulders are present for riding and are consistently wide along the MD 276 corridor, as far east as MD 275. An impediment to bike travel, however, is that shoulders near Main Street are often occupied by parked vehicles. MD 275 also has wide and consistent shoulders that can function as shoulder bikeways with pavement markings and signage.

Recommendations

MD 276 and MD 275 that outline the Town to the north and east are proposed as countywide bikeways. These would help to connect residents to employment, educational, and retail sites that line Main Street. Warning signs approaching curves and steep hills should be installed throughout Town. Future capital projects north of Town along MD 222 should include paved shoulders with bicycle route pavement markings. To complement on-road bicycle routes, both the Lower Susquehanna Heritage Greenway and East Coast Greenway should be completed and signed through Port Deposit.

MD SHA has begun planning a streetscape project along Main Street which will help create an

environment that welcomes non-motorized travelers. Bicycle parking is very limited in Town and should be installed to complement the streetscape improvements. Bike parking locations should include Town Hall, employment sites, and museums and historic areas.

The Bainbridge Development Corporation (BDC) is interested in utilizing a portion of their land (more than 1,200 acres) for a hiking and biking trail; however, the redevelopment plans for the property are on hold. Another opportunity for Port Deposit is the consideration of a water taxi service between Perryville, Havre de Grace, and Port Deposit, which has been studied by others, but there are no current plans to implement such a service.

Parallel to the development of the CCBP, the Port Deposit Transit Feasibility and Multimodal Transportation Plan is being developed. This plan will determine the feasibility of transit connections from Port Deposit to key destinations in western Cecil County and Havre de Grace, as well as related transit amenities within Port Deposit. Both the CCBP and the Transit/Multimodal Plan support the Town's desire to safely and efficiently move people and goods, and promote non-motorized forms of transportation.



MD 222/ Main St.



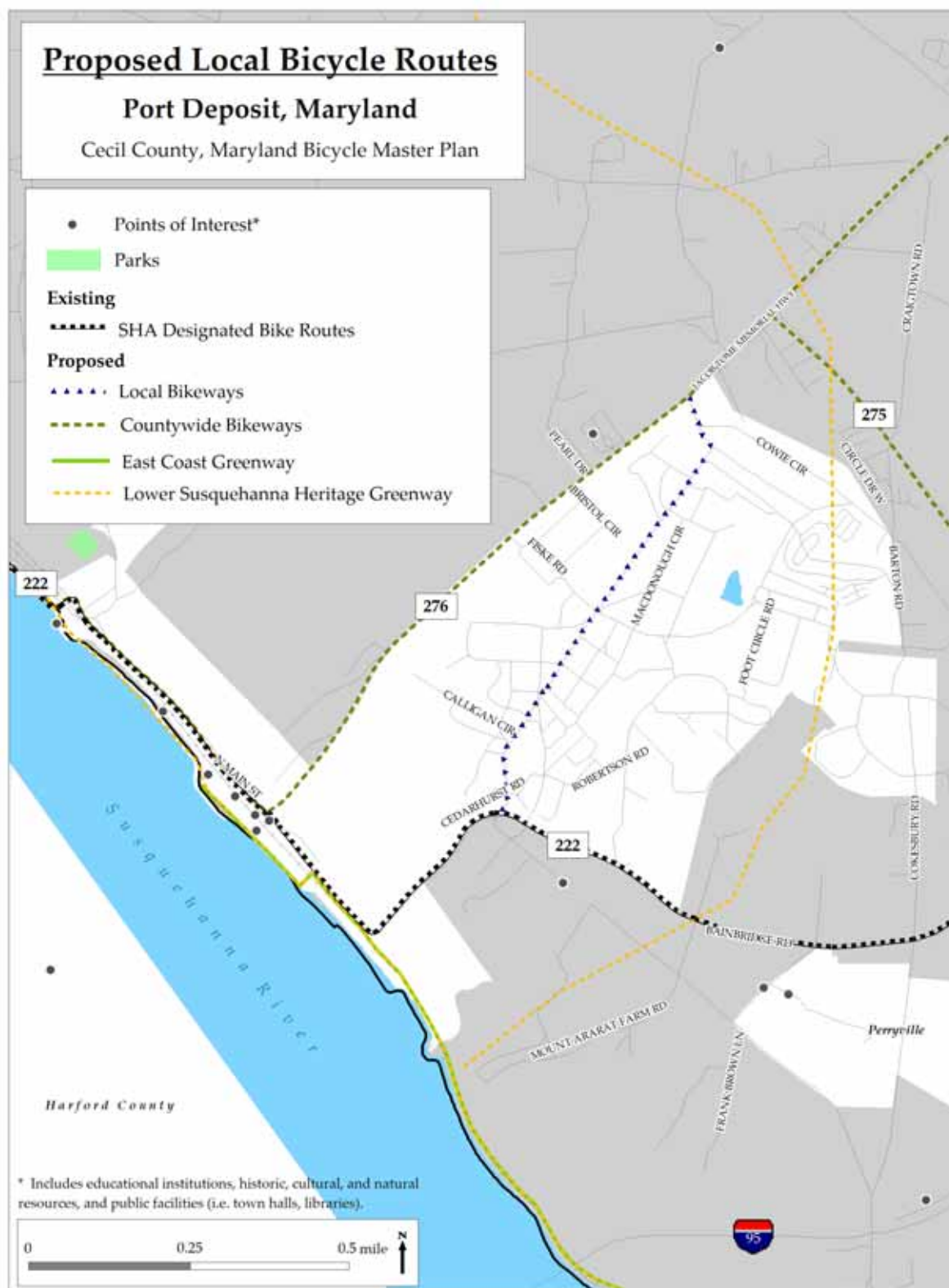
MD 222/ Bainbridge Rd.

Photo: Google Maps

Port Deposit Segments and Treatments

MD 276 from MD 222 to MD 275	Maintain wide, paved shoulders. Install Share the Road signage. No change to the roadway.
MD 275 from MD 276 to MD 222	Maintain wide, paved shoulders. Install Share the Road signage. During reconstruction, widen road and add bicycle lanes.
S. Main St. and MD 222	Install warning signs approaching curve. Shift centerline striping to provide wider travel lane onto Main St. entering town, instead of two lanes exiting town.
MD 222 from northern town limits to MD 276	Install Share the Road or Bicycles May Use Full Lane signage. During major construction, provide paved shoulder where feasible.
MD 222 from southern town limits	Install Share the Road or Bicycles May Use Full Lane signage. During major construction, provide paved shoulder where feasible.
Bainbridge Rd. from MD 222 to MD 276	When Bainbridge site is redeveloped, provide bicycle lanes and signage.

Map 12:



Rising Sun, MD

Background

Rising Sun is a small rural town, located in the northern portion of the County within the MD 273 and US 1 corridors. Based on Rising Sun's Comprehensive Plan, multimodal transportation options are embraced and the document lays out commendable ways to accommodate non-motorized travel via the Town's zoning ordinance and subdivision regulations. The Bicycle Plan aims to ensure appropriate tools and practical strategies for convenient bicycling with fewer hazards are in place to help the Town develop according to its vision. Congestion that occurs within the town center of Rising Sun could be curtailed by promoting regular bicycle usage for local commute trips and errands.

Challenges and Opportunities

MD 273, the main east-west thoroughfare through the Town has a mix of residential and commercial uses that generate traffic from a variety of modes. The busy corridor, however, is not inviting to bicyclists. Adequate space for shoulders or bicycle lanes is lacking due to existing lane widths through the center of Town. Further, another Town study identified the Walnut and Cherry Streets intersection as problematic. It is heavily used to avoid the MD 273 and 274 (Cherry St.) intersection where there are operational and capacity issues, and heavy truck traffic on MD 274. While the extent of bicycle usage along this short-cut is unknown, the heavy vehicle presence makes the short-cut challenging for bicyclists who too want to avoid the major intersection where Cherry Street intersects with MD 273.

Recommendations

There are some very short distances with shoulders, but lengths are inadequate to be designated as a facility for practical use. The Town would benefit from "Share the Road" signage and bicycle sharrows along roadways that meet the volume and speed criteria. The bicycle network through Rising Sun should provide connections to existing activity and employment centers along Hopewell Road. Enhanced bicycle facilities that connect Rising Sun to the nearby villages of Farmington, to the southeast and Colora, to the southwest, should be considered as well. As a priority, the Town should work to formalize and sign the



MD 273



MD 274 westbound

Octoraro Greenway for biking and walking, which is an abandoned railroad right-of-way that connects to open space in a scenic portion of the county. This proposed rail-trail connects Rising Sun to the Lower Susquehanna Heritage Greenway. Cecil County owns roughly five miles of the corridor from the Mason-Dixon line to just south of Colora and could acquire more through the subdivision process. A spur to the former Bainbridge site, which is planned for redeveloped, could also be developed as a trail connection.



Photos: Lower Susquehanna Heritage Greenway

Views of the proposed greenway connecting Bainbridge to Colora.

Rising Sun Segments and Treatments

MD 273	Install bicycle route /wayfinding/ warning signing. Provide alternative routing through Town core.
Colonial Way from MD 274/ Biggs Hwy to MD 273/Main St.	Install sharrows and share the road signage.
Mount St. from MD 273/Main St to US 1/ Conowingo Rd.	Install sharrows and share the road signage.
N Walnut St. from MD 273/Main St to US 1/ Conowingo Rd.	Install sharrows and share the road signage.
W Pearl St. from MD 273/Main St. to town limits	Install sharrows and share the road signage.
Octoraro Trail and Access	Enhance access and signage to connect to Octoraro Trail.

Map 13:



3.5 Bicycle Facility Design

There are many ways to accommodate bicyclists, both on-road and off-road. Once a facility type is determined (bike lane, shared roadway, shared-use path, etc.), it must be designed correctly. The design of bicycle should not treat bicyclists as pedestrians on two-wheels, but should treat bicyclists as vehicle operators. There are several documents that can be reviewed for design: SHA Bicycle and Pedestrian Facility Design Guidelines, AASHTO Guide to Development of Bicycle Facilities, the Manual on Uniform Traffic Control Devices (MUTCD), and other FHWA documents and reports.

3.6 Maintenance

Bicyclists are much more sensitive to maintenance issues, such as pavement surface problems, than motorists. Common maintenance problems for bicyclists include potholes, debris accumulation, faded on-road bicycle markings, snow removal, encroaching vegetation, and lateral drainage grates. Regular maintenance will ensure that bicycle facilities are inviting and easier to use.

According to the Federal Highway Administration (FHWA), key components of a bicycle facility maintenance program should include:

- Maintain roadways and bikeways to a relatively hazard-free standard
- Involve bicyclists in reporting maintenance problems and hazards.
- Design and build new roadways and bikeways to reduce the potential for accumulating debris.
- Include maintenance costs and straightforward maintenance procedures in all bicycle facility projects.



Broken pavement in the shoulder is unsafe and uninviting to bicyclists.

County and Municipal Public Works should maintain a schedule for routine maintenance of bicycle facilities, including roadway shoulders. The County and Towns should also repair and pave shoulders when larger road improvements are made, and install bicycle-friendly drainage grates in new road projects and replace problem grates.

3.7 Planning and Design Review

While the Cecil County Bicycle Plan identifies some infrastructure changes, institutional changes are necessary to facilitate and support the physical changes. Achieving the vision calls for future changes to the existing zoning ordinances, subdivision regulations, and site and design review processes. Several Towns in Cecil County need better language in their zoning ordinances, while others such as North East are already working on improvements.

Section 4. Bicycle Parking

Lack of bicycle parking at trip destinations is a significant factor that discourages regular bicycle use. Utilitarian trips (to work, school, or errands) by bicycle require a safe place to park a bicycle at trip endpoints. Government and office buildings, shopping centers and other important errand destinations best accommodate cycling when they are equipped with bike racks that accept U-locks. Many places throughout Cecil County and its incorporated Towns do not have bicycle racks, including the Cecil County Administrative Building and several Town Hall buildings. Bicyclists in the County have stated that bicycle parking is one of many improvements that would serve them better.



Main Street in Elkton has abundant opportunities for bicycle racks.




Both countywide and locally, bicycle parking locations should include high-demand destinations such as employment and commercial areas, parks, schools, worship centers, bus stops and park and rides. Providing ample bicycle parking at transit stations and Park & Rides create a necessary link between transit and bicycling. For cyclists who commute by bike regularly, sheltered or indoor parking of bicycles is preferable in order to reduce exposure to thieves, vandals, and the elements. Bicycle storage rooms and shower facilities located indoors on-site are very helpful for bicycle commuters who need to clean up and change clothes when they reach work.

Multiple buildings should not be served by one bicycle rack. For example, rather than having one large rack for an entire shopping center, multiple small racks located near building entrances will increase convenience for cyclists and give rise to better utilization. Highly visible parking locations also provide natural surveillance, which offers bicyclists peace of mind that their equipment is safe from theft.

The height, length, and width of a bicycle rack are important elements to secure an adult bicycle for short- or long-term purposes. A properly designed bicycle rack should meet several criteria, summarized below:

- Accommodate a wide range of bicycle frame types.
- Support the bicycle in at least two places, preventing it from falling over.
- Allow the locking of the frame and one or both wheels with a U-lock.
- Securely anchored to ground to avoid vandalism or theft.
- Sturdy to resist rusting, bending or deformation.
- Adequately placed to avoid conflicts with pedestrian traffic or entrances.
- Clearly visible from the destination it serves.

Pictorial examples of preferred and non-preferred bicycle racks are provided below. There should be an appropriate number of parking spaces that correspond to various buildings and land uses. Parks, schools, libraries, town halls, and community centers should provide eight bicycles per location/per students/ or per acre. For every 30 spaces, one bicycle rack should be provided at transit stations including Perryville Train Station and future rail service at Elkton Station. Coffee shops and restaurants would benefit from having up to three bike parking spaces. As bicycle usage increases, the quantity of bicycle racks provided may increase. Other locations for bike parking include shopping centers and arts and entertainment districts. Shopping centers are prime locations for a bicycle corral, which is a novel way to gather one to two dozen bicycles. A corral uses one vehicle parking space and is buffered by bollards and parking space stop barriers.

Table 1: Bicycle Parking Location and Design Examples	
Preferred	Not Preferred
 <ul style="list-style-type: none"> • Locations at transit stops and park-and-rides provide linkages with transit. Covered storage protects bicycles from the elements and offers long-term use. 	 <ul style="list-style-type: none"> • A poorly designed bicycle rack can result in bicycle damage or theft.
 <ul style="list-style-type: none"> • Located within a parking garage, bicycle storage rooms offer natural surveillance for safety and easy access to nearby destinations. 	 <ul style="list-style-type: none"> • Poor placement in proximity to building entrances can enhance theft attempts. Also wheel only designs that do not support the bike frame facilitates poor usage.
 <ul style="list-style-type: none"> • Located within a local park, highly visible bicycle racks encourage bicycling for short-distance trips. 	 <ul style="list-style-type: none"> • Poor installation prevents use, which potentially damage bicycles, and increases maintenance costs for the bicycle rack.

Bicycle parking is an inexpensive and efficient means of increasing parking capacity for the Towns and the County. In one local example implementing bicycle parking was easier than expected. Cecilton, Maryland was successful at requesting the development of a new gas station in Town to provide a bicycle rack. While the developer did comply, unfortunately, key design and placement details to providing bicycle

parking were missed, such as visibility. It is very important for incorporated Towns to adopt firm bicycle parking requirements in order to see the most desirable outcome. Also, waiting for new development is not always practical under certain circumstances. Some locations need bicycle parking immediately and could benefit from a cost-sharing program that divides the equipment and installation costs between local jurisdictions and private entities requesting a public use bicycle rack. Bicycle racks could also be easily purchased through the Public Works department and installed within the public right-of-way.

Cecil County recently adopted a bicycle ordinance (Section 278. Bicycle Accessibility, Mobility, and Parking) that requires new and redevelopments to provide bicycle provisions at commercial uses and multi-family dwellings. To stay consistent with directing the most bicycle investments in areas most populated (present and future), these provisions highlight the Business-General, Business-Intensive, and Employment/Mixed-Use Districts identified in the County's latest Comprehensive Plan. One way the County's existing bicycle accessibility and parking ordinance can be strengthened is to allow for off-site provisions under certain circumstances. Overall, the County's 2011 zoning ordinance is a worthy guideline to follow for incorporated areas that do not have bike facility and parking provisions in place.

The recent update of North East's zoning ordinance and subdivision regulations overlapped with the development of the CCBP. The Town incorporated provisional language that is similar to Cecil County language. While not as far along as North East, recent Perryville and Rising Sun Comprehensive Plans call for amendments to their zoning ordinance that would require bicycle parking in non-residential developments and would allow for vehicular parking reductions if appropriate bike parking were provided. The recent 2011 Elkton Bicycle Plan recommended similar bicycle supportive language as well.

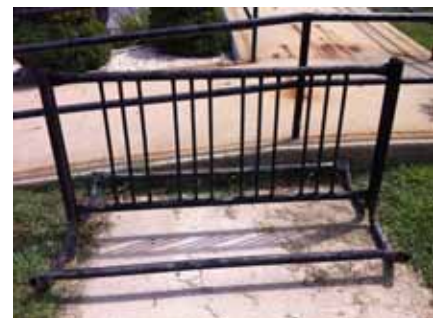
Often there is reluctance to establish more requirements for development out of fear it will discourage economic opportunities. However, there is a significant benefit to having Cecil County



Lack of bicycle parking at a government building creates an inconvenience for bicyclists and discourages bicycle use.



North East, Maryland does not have bicycle parking that directly serves the Town Hall. Bicyclists must use bike racks further away that serve other businesses on Main St.



Perryville, Maryland Town Hall has a bicycle rack that is not a preferred design and its placement is too close to the ramp railing preventing proper storage.

and all the Towns adopt similar provisional language in a concerted effort. This creates a seamless method for achieving similar goals and establishes an equal playing field for development opportunities. More importantly, this firmly states to developers that Cecil County and its Towns are committed to providing quality facilities and accommodations for all modes.

Functional and Creative Bike Racks

Creative, while still functional, bicycle racks can increase visibility and complement other streetscape and public art projects. For example, a coffee shop may provide a properly designed bicycle rack that mimics a coffee mug to generate visual interest. Many non-traditional bike rack designs also incorporate the name of the local community or a community emblem. A brightly painted bicycle rack can also effectively generate interest and use.



Photos (clockwise): Arlington, Virginia; Washington, D.C.; Roanoke, Virginia; Baltimore, Maryland; Long Beach, California

Section 5. Transit

5.1 Existing Services

Presently, County residents are served by the Maryland Area Regional Commuter (MARC) service at the Perryville Station and bus service operated by the Cecil County Department of Aging and Delaware Transit Corporation (DTC), shown on Map 14. Cecil County Community Transit operates the “The Bus” in the form of two fixed-route buses that provide access along the US 40 corridor connecting the Towns. DTC runs an inter-county bus from Newark, Delaware to Elkton, Maryland. Over the years, this route has suffered from declining ridership and a series of funding cuts which has strained trips. Despite DTC’s fledgling inter-county bus, overall transit ridership and fixed-route bus mileage has steadily increased in Cecil County. Since 2006, ridership exceeded 17,000 patrons⁷. In 2010, the County had more than 36,000 bus riders (177% increase). Ridership is likely to continue its upward trend. More recently, Cecil and Harford Counties’ transit agencies have begun bus service across the Hatem Memorial Bridge into Havre de Grace. The Route #7 Teal bus connects riders from Aberdeen to Perryville, with headways aimed to meet the MARC train in Cecil County. Other destinations served include Harford Memorial Hospital and the Perry Point Veterans Administration. This service provides a critical transit link between Cecil and Harford Counties. In terms of rail service, there is a long-standing gap of service through Cecil County. Currently, Perryville, Maryland is the only municipality being served by commuter rail service, of which the Maryland Transit Administration (MTA) contracts with AMTRAK. From 2000 to 2010 MARC ridership at the Perryville Train Station has steadily increased by more than 200%⁸.

The Towns of Rising Sun, Charlestown, Chesapeake City, and Cecilton are not directly served by any public transit routes. Instead, transit routes in Cecil County tend to be located on heavier traveled roadways in order to serve a greater number of passengers. Due to the high traffic volumes on these corridors, these roadways generally present greater challenges for cyclists. Connecting bicycle routes with transit services typically helps bicyclists to overcome these challenges.

5.2 Future Expansion

Areas mainly north and south of the US 40 corridor are not presently served by transit and are likely to remain unserved in the future due to prohibitive costs. However, the County will continue to promote transit service within the US 40 corridor. There are a number of efforts and proposed expansions to make Cecil County transit service grow and run more efficiently. Connecting these future endeavors with the County’s proposed bicycle routes will help accomplish many of the Comprehensive Plans’ transportation goals.

⁷ Cecil County Senior Services and Community Transit, 2006-2010

⁸ Maryland Transit Administration, 2010

Map 14:



County Bus Service

The 2010 Cecil County Transit Development Plan (TDP) sets a goal to improve services to residents and increase transit ridership. The five-year plan lays out a path forward to implement additional bus service, mostly within the Towns of Elkton, North East, and Perryville. This would include a Perryville-North East Connector. To fill in the rail gap between Newark and Perryville, a contracted commuter express service from SEPTA and key park and ride locations to Aberdeen was proposed. There is also the consideration to control operations of the inter-county bus route from Delaware, with the opportunity to expand the route to reach more Cecil County residents. These and many other recommendations will be critical as the County is set to grow significantly.

Elkton Train Station

While the Town is served by fixed-route and demand-response bus service, commuter rail service has been unavailable in Elkton for more than two decades. In more recent years, there has been a concerted effort among stakeholders to restore service to this location. In 2010, a Transit-Oriented Development (TOD) Plan was developed for Elkton. TOD is a mixed-use area designed to make communities more livable by making public transit, walking and bicycling more practical and convenient. The proposed Elkton TOD would re-establish the transit station to serve as a hub for existing and future bus service and re-commission commuter rail service for regional access. The Elkton TOD study also overlapped with the Elkton Bicycle Plan (2011), which aimed to connect transit with bicycling opportunities. The redeveloped station site would provide improved bicycle access and bicycle parking. Also proposed is a “Train to Main” route for bicyclists and pedestrians that would connect the train station and shops and services along Elkton’s Main Street. While currently unfunded, the 2007 MARC Growth and Investment Plan called for a new Elkton Station and associated track improvements by 2015. However, revised project timing is expected in an updated MARC investment plan.

North East Train Station/ Transit Hub

A Transit-Oriented Development (TOD) Plan is presently underway that will support existing bus transit service and future commuter rail and transit hub service. North East is aiming to establish a hub for existing service and bus transfers. Ideally, the site should provide a comfortable waiting area with seating and plenty of bicycle storage. This hub design could be similar to the Newark, Delaware Transit Hub, shown on the right. The TOD Plan will also promote future re-introduction of rail service to North East. Multimodal transportation needs are being considered including bicycle and pedestrian circulation.



Bike racks and passenger amenities at the Newark, Delaware Transit Hub

Perryville Train Station

In early 2012, a TOD study was completed for Perryville to develop a transit-oriented facility and evaluate opportunities to enhance existing and future MARC commuter rail service and facilities. The plan serves to promote transit supportive redevelopment within the Town's center and train station areas, and to strengthen accessibility and connectivity, particularly by walking and bicycling. One key concern regarding the station area is parking, which is currently filled to capacity. Improving non-motorized access and adding more bike parking would help manage vehicular parking demands. Developed in conjunction with the TOD Plan, the Perryville Greenway Plan recommends bicycle and pedestrian improvements throughout Town.



While bicycle parking is available at the Perryville Train Station, it is not a preferred rack design, especially for long-term usage.

Port Deposit Transit Study

Currently underway is the Port Deposit Transit Feasibility Study and Multimodal Transportation Plan, which is aimed to support several transportation objectives laid out in the Town's Comprehensive Plan. The Transit Plan will evaluate the feasibility of transit connections from Port Deposit to key destinations in western Cecil County and Havre de Grace, as well as related transit amenities within Port Deposit. Efforts will focus on linking residential, recreational, educational and commercial locations via transit. Linking potential transit service with bicycling could provide Port Deposit residents and visitors easy access to the Perryville Train Station located just six miles away.

5.3 Bicycle-Transit Integration

Linking bicycling and transit services to extend the distance of trips is appealing to existing and potential user groups. The bicycling portion of the trip covers more than twice the distance of walking, whereas the transit portion of the trip allows bicyclists to overcome long distances and physical barriers. In 2011, 20% of residents were within a quarter-mile walking distance of transit stops. This figure could be significantly increased when enhanced bicycle-friendly streets serve as feeder routes to transit stops. The bike-and-ride method is often cheaper than using park and rides, and more eco-friendly. Connecting the two modes can provide a high level of mobility and accessibility. The following list includes several ways that a transit provider and other partners can integrate biking and transit usage by providing:



Source: Alta Planning and Design, 2011

- Bikeways that connect to transit options
- Bicycle bus racks
- Bicycles on-board rail cars
- Bicycle parking at bus stops and transit stations
- Bicycle stations



Cecil County buses have mounted bike racks.

DART and Cecil County Transit have begun integrating their operations by equipping their buses with two front-mounted bicycle racks. Cecil County's bicycle-transit integration should be heavily publicized and include the distribution of instructions on how to use the system. Basic marketing tools such as brochures and websites could be used to further promote the program. Targeted marketing can also be effective as well. For example, low-density areas that lack transit but surround higher density areas with transit are good geographic areas to target, along with low-income, zero-car households, students and seniors. Transit providers' best practices also include providing bicycle rack displays at community events for the public to practice mounting a bicycle. These low-cost improvements could contribute to increases of bike-transit trips within the County and out to Harford County.

Linkages between biking and transit are even more strengthened when other strategies that encourage bicycle and transit use are employed in conjunction. Another way to integrate the two modes is the use of interior accommodations, such as bike on-board rail cars. On MARC trains, current policy only allows folding bicycles because there are no designated storage areas inside the train car. Unfortunately, this policy can discourage many bicyclists from combining their trips with rail service. As the redevelopment of Elkton Train Station nears and more Towns implement their Transit-Oriented Development Plans, stakeholders should partner and petition MTA to consider a policy that will allow a minimum number of trips with full size bikes on the MARC line. It is recognized that this is challenging for MARC because many current trains are already filled to capacity. Other ways to create linkages are to implement Cecil County's proposed bicycle routes that connect to key transit stops and, present and future rail stations. Cecil County could effectively use transit-bike strategies as one of several ways to address parking shortages and congested roadways. Also, Cecil County is projected to grow significantly in population and employment by 2040, which will undoubtedly increase travel demands and makes heavier investments in transit and bicycling justifiable.

The public can become more educated about using their bicycles in conjunction with transit via bike-transit workshops organized by transit providers and other partners. The purpose of the workshop is to promote safe bicycling behavior and encourage bike and transit usage. Attendees should be encouraged to bring their bicycles and all lessons should be interactive. Workshop topics should include: bike safety check; safe street riding skills; how to lock your bike; how to take your bike on the train; how to use bike racks on buses; and the benefits of bicycling. Giveaways of bicycles, helmets, bike lights, and other bike accessories can be used as incentives for community members to attend and complete these workshops.

Section 6. Enforcement

Enforcement is a key element to a bicycle friendly community as it supports bicycle safety education efforts. Reducing bicycle crashes and related injury or death is the most important aspect. According to SHA data, both statewide and countywide bicycle crashes have steadily dropped since 2000. Cecil County experienced a total of 16 bicycle crashes in 2000, which decreased to 10 in 2009. It is important to note that these figures do not include close calls. Bicycle crash data collected annually by SHA should be used to help law enforcement discern where the most dangerous corridors and intersections are and specifically target them. Law enforcers of Cecil County, in partnership with MDOT, could begin a bicycle helmet promotion program to help reduce injuries or death.

Key Findings in Cecil County:

- Since 2005, bike crashes and injuries have remained steady countywide.
- More than 80% of bicycle crashes along major arterials resulted in injuries.
- Seventy-five percent of crashes occurred along major arterials, and close to 50% of those crashes occurred at intersections.
- Sixty percent of crashes involved cyclists age 19 years or younger.
- More than half of crashes occur in municipalities.
- Bike crashes demonstrate a correlation with congested corridors in the County, such as US 40 and MD 213.

Effectiveness of enforcement can be measured by the connection between the bicycling and law enforcement communities. The connection is usually strengthened when there is a liaison between the communities. Currently, there is no bicycle division of the law enforcement arm of the Cecil County Sheriff's Department. However, it may be more appropriate for local law enforcement agencies to patrol by bicycle. To date, the Town of Elkton is the only municipality that has an active bicycle patrol unit during warm weather months. By working together, state police, the sheriff's department, and local law enforcement agencies can make the most of limited resources and contribute meaningfully to the enforcement program.

The existence of bicycle related laws also aids in protecting bicyclists from preventable hazards. Law enforcement officers throughout the State should be familiar with Maryland bicycle laws. The Three-Foot law passed by the Maryland General Assembly became effective October 2010. This law requires motorists to give cyclists three feet of clearance when passing, unless the roadway is too narrow to allow three feet. The law also repealed the requirement of bicyclists to ride on the shoulder. Patrolling law enforcement should actively enforce this law to ensure a buffer space is provided for safety. To stay up to date on traffic law enforcement for bicyclist safety, officers should utilize the upcoming Bicycle Safety Law Enforcement Video Training that is being developed in partnership by MDOT and the Maryland State Police.

Driver safety education programs, such as the Rookie Driver Program, are available in Maryland which aims to target safe driving in young drivers. Based on data, there is a need to target bicyclists 19 years of age and younger.

Enforcement also educates motorists and bicyclists on proper behaviors when sharing the road. There are many potentially hazardous behaviors that each can be warned of, both through law enforcement officers and other public education mediums. For instance, motorists behaviors such as passing a bicycle too close (less than 3 feet), opening a car door into a bicyclist, failing to yield the right away, or using a cell phone or texting while driving should be discouraged. Some behaviors bicyclists should avoid include wrong way riding on the road, running a stop sign or red light, or driving at night without proper lights and reflectors. Not all enforcement requires ticketing, but can come in other forms of reinforcement such as verbal or written warnings. Generally, targeted enforcement should reinforce the Share the Road message.

Law enforcement officers should also consider the enforcement of speed limits as another key to improving bicyclist safety. Due to speed differentials, speeding motorists increase the risk for bicyclists riding on-road and can increase the severity of a collision. Other hazards include the door zone, which is the space spanning about four-feet from parallel parked cars. The danger of the door zone comes either from impacts of hitting a car door or swerving to avoid one and falling into the path of oncoming traffic. Many county owned roads that lack on-street parking do not pose a door zone problem, but local roads through Cecil County Towns could present the hazard. Bicycle patrols can reinforce education campaigns that should include this issue. Overall, as bicycle education and encouragement efforts increase, enforcement efforts should keep pace.



Unsafe bicyclist behaviors should be targeted, while safe behaviors are encouraged.

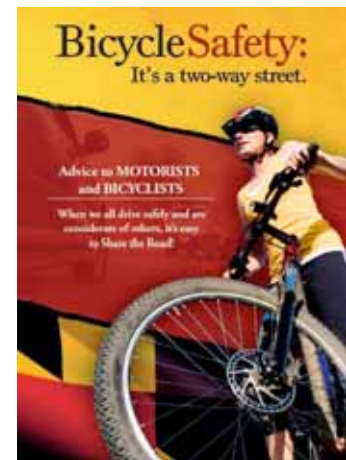
*Unless permitted through a local ordinance.

Section 7. Education

The enhancing roadways for bicyclists alone will not increase safety. The proposed bicycle network must be used properly to ensure risks are reduced for all users. Reducing bicycle-automobile crashes is more practical when infrastructure, education, enforcement, and encouragement strategies are combined. Public education is a powerful tool and can provide information and motivate change in specific behaviors. There are several considerations to incorporate when developing a bicycle safety education awareness and safety campaign, such as the most appropriate mediums for a particular audience. Usually the costs of educational programs and campaigns are nominal when compared with the costs of construction projects. Two key forms of education, print materials and programs, are covered below.

Print Materials

The most common and easily implemented form of public education is print materials. The State of Maryland has several print materials, including “Bicycle Safety is a Two-Way Street”, which promote safety from a bicyclists and motorists perspective and responsibility. These materials should be available to Cecil County residents and visitors. Local versions of these materials could be provided, where applicable. Working with Cecil County Transit and MARC, materials should be available on public transit display cases. Materials should be inserted into new bike route signpost boxes, where applicable. If the County decides to promote the development of new safety brochure materials, they should work with relevant bicycling agencies such as Bike Maryland and the Maryland Pedestrian and Bicycle Advisory Committee. Print materials should include a variety of topics that impact bicycling usage and safety, listed below:



Maryland brochures are available for bicycle safety education.

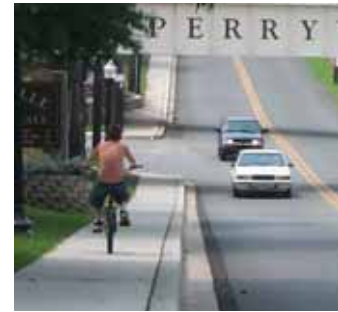
- Bicyclists' rights and responsibilities
- Proper lane positioning
- Sharing the road
- Passing bicyclists safely in a motor vehicle
- The 'door zone'
- How to get a green light
- Wrong way riding
- Helmet use
- Bike lights
- Hand signals
- How to safely lock your bicycle
- How to use bus bike racks
- How to take a bike on a train
- Economic benefits of bicycling
- Health benefits of bicycling
- Environmental benefits of bicycling

To complement print materials, safety videos should also be utilized. The Maryland Department of Transportation offers a free DVD, “Confidence and Competence: A Bicycling Guide for Adults.”

Programs

Education programs with emphasis on bicycle safety and adherence to laws is this Plan's key strategy to teach children and adults safe bicycling practices. Cecil County needs a broad education program that targets all ages and riding ability.

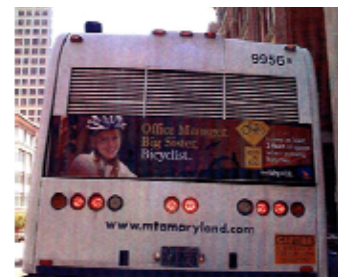
Adult bicyclists tend to benefit from traffic skills training courses that offer hands-on learning experiences. Youth bicycle safety is also very important to the communities of Cecil County. In fact, most bicycle accidents involving children are not accidents at all but rather preventable incidents. If proper safe riding techniques are followed, many injuries and deaths can be prevented. Bicycle rodeos provide an opportunity for students to learn about and practice, safe bicycling skills. Students practice starting and stopping, the safe way to exit a driveway, how to look for traffic, negotiate an intersection, and avoid common road hazards. Reinforcing these lessons each time a child rides a bicycle will lay the groundwork for safe riding and driving their entire lives. Bicycle rodeos and other educational initiatives aimed at youth can be achieved through a Safe Routes to School Program. To date, no schools in Cecil County have participated in the program. Furthermore, the traditional SRTS has been transformed by recent federal transportation law. When Maryland determines how the new Safe Routes for Non-Drivers element of the Transportation Alternatives program (formed under the MAP-21 legislation) will be administered statewide, eligible schools in Cecil County should pursue this funding.



Safety education is needed



School Bicycle Rodeo



Bicycle safety bus wrap

Cecil County Department of Parks and Recreation should be involved in efforts to increase overall bicycling and improved safety. Parks and Recreation should work with other stakeholders to develop a bicycle safety education program that includes traffic skills training and bicycling commuting workshops. These programs should be offered during warm-weather months when bicycling increases. A variety of stakeholders should be involved in safety education efforts in Cecil County including law enforcement, a bicycle advisory committee, area bicycle clubs, higher-education institutions, state and county health departments, and other related organizations such as Bike Maryland.

A permanent website should also be provided as the main source of bicycle related materials for Cecil County, such as online bicycle maps, bicycling tips, skills course information, and other resources.

Section 8. Encouragement

The fourth of the five “Es” of bicycle planning presented in this section is encouragement. Encouragement entails marketing positive messages about the benefits of bicycling which dovetails with bicycle education. Encouragement efforts will provide positive visibility to bicycling opportunities throughout Cecil County and the Towns.

8.1. Programs, Events, and Marketing

Formalized programs and recurring events are influential activities that help get the desired results of increased bicycle usage. Another dimension of encouragement is marketing, which is a means of promoting the programs and events, tourism, and other messages about bicycling as a viable mode of transportation. There is only so much marketing that Cecil County and the Towns can do themselves. They must rely on the leading efforts of business organizations and advocacy agencies such as Bike Maryland. Also, summer months tend to have higher numbers of bicycle riders, so this season is ideal to launch new programs.

Bike to Work

Nationally, the month of May is celebrated as Bike Month. The third week of May is observed as Bike to Work Week, and the last Friday of that week is Bike to Work Day. Bike Month programs are effective ways to help infrequent riders feel comfortable with a bicycle commute. Bike Month is usually supported through a proclamation issued by a Town Council. Cecil County and the Towns should adopt Bike Month to increase bicycle usage and commuter trips. The Town of Elkton endorsed Bike Month in 2011. The chart on the following page outlines some events and activities that can generate interest and participation during May and every month. A good model of how Cecil County could champion for bicycling is similar to the County’s campaign during the month of October to support Breast Cancer Awareness. The campaign has a number of partner agencies and well-publicized events throughout the month. Similarly, the Cecil County Executive could proclaim the month of May as Bike Month and enlist partners such as the Department of Tourism, Health, Parks and Recreation, and the Lower Susquehanna Heritage Greenway.



Baltimore



Rockville

Many cities and towns around Maryland participate in Bike to Work Day activities.

Table 2: Example of Bike to Work Activities

Activity	Description
Bike Pool	Announce pooling location(s) and time(s) so people can ride to the employment center(s) as a group for one day.
Bike Month Proclamation	Issue a resolution or proclamation declaring May as Bicycle Month.
Bike Commuter Fair	Provide displays of commuter information, give out maps, coordinate a "bike buddies" program and have a bike repair station.
Bicycle Lecture / Workshop / Clinic Series	Offer a variety of lecture and workshop topics: Intro to Bicycling; Fitting & Purchasing a Bike; Bicycle Safety; Bicycle Repair & Maintenance; Bike Commuting; Cycle Touring; Women & Cycling; Cycling with Kids & Families; Bicycling in Hot & Cold Weather; Biking in Very Cold Weather
Stage an Event to Highlight A Priority Project	Ride through an important project area.
Bike-Buddy Program	A mentoring program pairs experienced bike commuters with people who are just getting started. Mentor topics include finding a route, dressing for different weather and lighting conditions, bike storage, etc.
Charity Fundraising Bike Ride	Help raise awareness of bicycling while raising funds for a worthy community cause.
Organize a Bike Commuter Competition	The company or agency with the most and highest percentage of bike commuters should at least get tons of recognition.

Source: www.ibike.org/encouragement/bike-day

Ciclovía

With its original roots in Bogota, Colombia, the Ciclovía Program has been around for several decades and provides a framework for many places, local and abroad, trying to advance their city-wide bicycling efforts. Ciclovía (also known as Sunday Streets, Open Streets, Car Free Streets, or similar titles) is an event that temporarily closes specific streets to vehicular traffic and dedicates the space to walking and running, biking, skateboarding, other recreational pursuits, and socializing. To date, many U.S. cities have active and successful Ciclovía programs, including Baltimore, Maryland. It is suggested as a long-term consideration in the Bicycle Plan for Elkton to pilot the program around a few designated streets in its downtown area. The program could be tested in conjunction with one of several Main Street events. The program is not ideal along more rural corridors of Cecil County.

Cycle Maryland

The state of Maryland recently established the Cycle Maryland Initiative which is a notable leap forward to promote bicycle commuting and tourism. This successful initiative encompasses several funding programs and is managed by MDOT. There were many bicycle rides and promotional events held across the State during the summer of 2011 associated with Bike Maryland, but none were in Cecil County. Future biking events held in Cecil County could provide positive visibility to the County and promote bicycle tourism.

Other

Bicycle Maps

Bicycle maps that show designated bicycle routes and current bicycling conditions can help to increase bicycle use. Bicycle maps for Cecil County should be kept up-to-date and show locations of bicycle racks, transit stops, and provide safety tips.

Boating Areas and Bicycle Rentals

Cecil County is a popular destination to visit. Visitors can enjoy the waterways by boat and country roads, scenic views, and historic sites by bicycle. Currently, boating visitors to the area borrow bicycles from various marinas. These informal bicycle rentals could be formalized and then advertised through the Cecil County Department of Tourism. Boat and bike rental location (s) should also be included on bicycle maps.

Route Signs and Other Visuals

An abundance of bicycle parking is a visual clue that bicycling is being encouraged. Other visual clues include bicycle route signs, lamp post banners, and a free air station, as shown below. Bicycle route and wayfinding signs provide clear user information and navigational instructions.



Bicycle logo trash can



Bicycle air pump station



Bicycle banner on lamp post

Health Programs

Working with state and county health departments that promote health and wellness is another approach to promoting bicycling for better health. There are several existing health initiatives that can be tailored towards residents and employers of Cecil County.

National Recognition Programs

The League of American Bicyclists (LAB) is a nationally-recognized organization that promotes bicycling for recreation, fitness, and commuting and provides national sponsorship for Bike Month and Week. The LAB has several programs, including Bicycle Friendly State, Community, Business, and University, which encourages bicycling activities. In the medium-term, the County and Towns should seek designation as a Bicycle Friendly Community, as well as use the program's target areas to help guide future improvements.

Mobility Challenged

While the Plan's goals are to reach the majority of residents, there are community members with mobility challenges. Above average areas in Cecil County with low-income populations, minorities, and households without an automobile should have access to the bicycle network and amenities.

8.2. Bicycle Tourism

National interest in bicycle tourism is growing as bikeways are resources that attract users from local areas and afar. Bicycle facilities, particularly off-road trails, contribute significantly to local economic development. Nationally, tourism contributed more than \$1 billion to the economy. In Maryland, tourism expenditures totaled \$14.3 billion in 2009⁹. During that same year, Maryland Visitor Statistics supported that for every 233 visitors a new job is created in the state. A key strategy to advancing bicycle tourism in Cecil County is educating elected officials about the economic impacts of bicycle tourism at the local and state levels.

There is an abundance of sites and places to visit in Cecil County. The County already has all the components that make it an ideal bicycle touring destination: country roads, rich history, scenic views, historic homes, notable landmarks and museums, attractive parks, charming inns, and a ferry crossing. For example, the Town of Port Deposit



Cecil County Tourism website should provide information on bicycling opportunities.

⁹D.K. Shifflet and Associates, 2009

is listed on the National Register of Historic Places and Rising Sun celebrates October as National Colonial Heritage Month to preserve heritage and culture. Target markets for tourism are adults, families, and retirees. Other markets for this study area are hikers, bikers, and boaters. Providing better connections is key to attracting hikers, bikers, and other outdoor enthusiasts. Completing the pathways and greenways previously proposed for the County would significantly influence the growing tourism market. As trails develop through Cecil County such as the East Coast Greenway, marketing will become increasingly important. Further, there is already a recreational bicyclists' base in Cecil County that could be expanded. Partnering with the Cecil County Department of Tourism is key to promoting scenic and historic Cecil County via bicycle. Marketing efforts in the form of its website, print materials, and programs should be utilized.

There is also immense opportunity to promote bicycling through the development of Cecil County's designated Heritage Area, which is the Lower Susquehanna Heritage Greenway (LSHG). The Maryland Heritage Area Program aims to preserve historical, cultural and natural resources for economic development through heritage tourism. Heritage Areas focus attention on often under-appreciated aspects of history, living culture, and distinctive natural areas. Bicycle tourism can also be promoted through the State's Rural Legacy Program, which protects large tracts of land that possess natural and cultural value. Cecil County's Fair Hill Rural Legacy Area largely encompasses the MD 273 corridor between Rising Sun and the Fair Hill Natural Resource Management Area. While the MD 273 corridor is heavily used for group bicycle riding, Cecil County should formally market its Legacy Area as an ideal place for bicycling touring.

Section 9. Implementation

The transportation system is just one of many aspects that must be carefully planned to maintain and enhance the quality of living in Cecil County. The Cecil County Bicycle Plan is intended to capture the vision of future improved bicycling conditions. This document should also serve as a guide that allows the County and its Towns to provide an efficient and reliable multimodal transportation system to residents and visitors. This section provides a variety of actions which should be undertaken over time. Implementation at both the County and local level requires a concerted effort between Cecil County, the eight incorporated Towns, SHA, and many others. Developing key partnerships is also an important element of implementation, as different entities may perform different roles such as network development, maintenance, and promotion.

Implementation will also require a formal body to champion alternative transportation and look after the affairs of bicycling in the County and provide advice to elected officials. The ad hoc committee formed to develop this Plan is a good place to start for a variety of stakeholders interested in raising awareness of bicycling issues. Having a formal board creates a sense of ownership and ensures that the plan has advocates. An advisory committee for each Town may pose difficulty with staff resources and sustaining participation. The best process is establishing a county-level advisory committee, where each Town has a representative, key organizations are present, and citizen advocates are welcome. Further, without underlying policies that are supportive of multimodal transportation, plan implementation may be difficult. Strengthening policies can help overcome common obstacles such as available funding. Cecil County and its Towns should focus on policy initiatives that focus on funding and strengthening interagency cooperation.

The following pages present a summary of the Plan's goals, strategies, and actions for Cecil County and the Towns to carry out in a cooperative partnership with other state and regional agencies. These actions include both infrastructure and non-infrastructure.

9.1 Summary of Recommendations

Goals, Strategies, Actions	Short-term (2013-2016)	Medium-term (2017-2020)	Long-term (2020-2040)
Goal 1: Planning/Engineering - Develop a coordinated bicycle network that is attractive, accessible, convenient, and provides intermodal connections.			
Strategy 1.1 Provide well designed, well-marked, and maintained on- and off-street bicycle routes.			
Actions:			
1. Work with SHA, County Public Works, and Towns to install signs and pavement markings and pave shoulders, where feasible, along the bicycle network.	X	X	X
2. Work with SHA, County Public Works, and Towns to ensure signal timing accounts for cyclists on state and local roads.	X	X	X
3. Work with SHA, County Public Works, and Towns to identify scheduled road improvement projects which may be modified to include bicycle facilities.	X	X	X
Strategy 1.2 Provide connectivity to county, regional, and national bicycle routes.			
Actions:			
1. Work with MDOT and local jurisdictions as the East Coast Greenway and Cecil County Greenways are developed and signed throughout the County.	X	X	X
2. Work with municipalities to support the development and implementation of the countywide bicycle plan to provide connectivity between the Town and county.	X	X	X
Strategy 1.3 Integrate bicycling with public transit facilities and services.			
Actions:			
1. Work with local jurisdictions, Cecil County Transit, and DART where applicable, to examine and incorporate bicycle access during the decision making process when improvements to existing and new bus stops are planned.	X		
2. Require new and redevelopment plans to include bicycle elements, including the future redevelopment of train station areas and planned TODs.	X		
Strategy 1.4 Provide adequate and secure bicycle parking at all major trip destinations.			
Actions:			
1. Install and/or require bicycle parking at major destinations and activity sites and expand bike parking further when demand increases.	X		
2. Work with Cecil County Transit and SHA to provide bicycle racks at key bus stops.	X		
3. Add bicycle supportive language to existing County and the Towns zoning ordinance and other bicycle-friendly actions to encourage and facilitate non-motorized travel, that is supported by existing or future development.	X		

Goals, Strategies, Actions	Short-term (2013-2016)	Medium-term (2017-2020)	Long-term (2020-2040)
4. Strengthen existing County and the Towns bicycle parking ordinance including bicycle rack design guidelines that incorporate key considerations for design and placement, and off-site provisions in alternate locations.	x		
5. Formalize a Bicycle Rack Program which allows the County to share the cost to purchase and install racks with local businesses within unincorporated areas.	x		
Strategy 1.5 Incorporate bicycle elements into planning activities and development.			
Actions:			
1. Incorporate the Bicycle Plan into the Transportation Element of the County's next Comprehensive Plan.		x	
2. Update County and the Towns zoning ordinance and subdivision regulations with language that requires bicycle accommodations when feasible and connects to the countywide bicycle network (when feasible require these accommodations to connect with existing and planned transit service).		x	
3. Consider bicycle facilities in design review procedures.	x		
Strategy 1.6 Develop an implementation plan and schedule.			
Actions:			
1. Review staff resources required for implementing the bicycle plan, including representation on a formal county bicycle advisory committee.	x		
2. Establish an inter-departmental and inter-agency bicycle plan advisory committee.	x		
3. Establish a dedicated funding stream using a portion of the Public Works and Parks and Recreation Departments' capital budget for the implementation of bicycle improvements on county owned roads.	x		
4. Create an annual budget for bicycle improvements and explore alternative funding sources.	x		
5. Establish a formal Bicycle Advisory Committee to assist with the ongoing implementation of the bike plan, address matters relating to bicycling and to raise public awareness on bicycling issues.	x		
Goal 2: Education -Provide effective information regarding bicycling techniques and motor vehicle operations.			
Strategy 2.1 Utilize and publicize the availability of existing bicycle safety instructional materials available from MDOT to educate Cecil County residents on effective bicycling lessons.			
Actions:			
1. Disseminate literature promoting appropriate bicycle laws, safety tips, bike commuting, etc.	x		
2. Support bicycle safety checkpoints facilitated by bike advocates, transportation staff, police officers, and volunteers.		x	

Goals, Strategies, Actions	Short-term (2013-2016)	Medium-term (2017-2020)	Long-term (2020-2040)
Strategy 2.2 Form partnerships with public schools, Cecil College, bicycle clubs and advocacy groups, social service agencies and health departments and other state agencies to assist in providing bicycle education.			
Actions:			
1. Support the County Parks, Recreation Department, and other local institutions such as the Board of Education and local Universities, to spearhead a bicycle education program that encompasses riding and commuter skills, and bike maintenance.		X	X
2. Support the County Health Department and local public institutions to integrate bicycling into their existing health and wellness initiatives.		X	

Goal 3: Encouragement - Increase bicycle usage by establishing a positive image of bicycling in the community that will foster bicycle-oriented lifestyles and businesses.			
Strategy 3.1 Support cycling programs and events to promote bicycling for transportation, recreation, fitness, and tourism.			
Actions:			
1. Formally support bicycling by adopting May Bike Month and Bike to Work Week through a resolution. Promote Bike to Work Month and Week through various local media.	X		
2. Work with the Cecil County Department of Tourism to promote bicycle tourism countywide and identify economic development opportunities.	X	X	X
3. Support and promote local Bike and Boat programs.	X		
Strategy 3.2 Involve the community in the planning and implementation of the bicycle plan.			
Actions:			
1. Invite residents to participate on the county or local bicycle advisory committees.	X		
2. Support online participatory mapping for residents to document their bicycling concerns that will help guide maintenance spot treatments for Public Works and SHA.	X	X	
3. Increase public awareness by using County government website to provide bicycle information, maps, and other resources.	X	X	X

Goal 4: Enforcement - Provide enforcement of traffic laws related to bicycling.			
Strategy 4.1 Effectively enforce laws that impact bicycle safety to reduce crashes and violations against bicyclist.			
Actions:			
1. Request that the Cecil County Police Department strengthen their enforcement for the rules of the road and target both cyclists and motorists.	X		
2. Request that the Cecil County Police Department reinforce statewide safety education strategies that target all users.	X		

Goals, Strategies, Actions	Short-term (2013-2016)	Medium-term (2017-2020)	Long-term (2020-2040)
3. Request that the Cecil County Police Department use resource and enroll in training courses regarding bike laws and safety available through MDOT, the National Highway Traffic Safety Administration, and others.	x		
4. Use data to identify high bicycle crash locations, and request county and local enforcement agencies patrol these areas.	x		

Goal 5: Evaluation - Periodically examine and quantify the plan's implementation progress and make adjustments where necessary

Strategy 5.1 Establish a countywide bicycle advisory committee to monitor the plan's performance measures prepare an annual report on implementation progress.

Actions:

1. Maintain a comprehensive inventory of proposed bicycle improvements and progress made on these improvements at both the countywide and local level.	x	x	x
2. Develop a list of performance measures based on the plan's goals.	x		
3. Monitor performance measures annually and update the bicycle master plan every six to ten years.	x		
4. Utilize a prioritization process to quantitatively evaluate projects that gives adequate weight to non-motorized improvements.	x		

9.2 Prioritization

Limited resources make it challenging to keep pace with present and future demands for bicycle improvements. Proposed prioritization criteria is introduced to provide a process for the County and Towns to determine the order of projects for implementation based on merits. This process identifies and targets factors that will serve the most people and yield the greatest benefits. Using a project-by-project approach, improvements can be scored and ranked based on the multiple factors outlined below. Currently, a weighting structure has not been developed. These criteria are not intended to rank bicycle programs such as safety education.

The four categories listed incorporate considerations such as potential demand, safety aspects, and community and stakeholder input. The cost of proposed projects is also an important factor and should be compared for priority order. For example, two proposed projects may score within a few points of each other, but one may cost \$10,000 and one may cost \$100,000. If all things are equal, the lower cost project should have priority. If the cost differential is nominal, then the recommendation with the greatest merit should have priority.

It is also important to re-examine final ranks to account for other issues not included in the ranking (urgency of project, life cycle costs, etc.). Proposed projects should also be re-rated periodically to take into consideration new information, new funding sources, updated statistics, etc. While the ranking of most may not change, new circumstances may affect the ranking and should be examined periodically. The criteria can be adjusted in the future if it is determined that certain types of projects believed to be important to the community are systematically under-ranked.

Proposed prioritization criteria:

Mobility and Access

Proximity to Destinations

Schools

- Middle school (1 mile)
- High School, college/university (2 miles)

Parks, Recreation, and Points of Interest

- Access to a greenway and/ or park
- Access to employment centers
- Access to commercial areas
- Access to higher density residential areas
- Access to mixed-use areas

Bicycle Parking

- Improvement includes bike parking or better access to bike parking

Safety

- Eliminates or improves hazard or obstacles
- Improves location with high bicycle crash rates

Transportation System Integration

- Connectivity to existing bike facilities
- Direct Access to/from rail transit
- Regional connection

Non-Infrastructure

- Directly supports education, encouragement, and/or enforcement strategies

Ease of Implementation

- Full or partial funding is secured, including private funding contributions
- Community support; inclusion in community plan
- Local jurisdiction buy-in

9.3 Funding and Partnerships

Presently, there is no set aside funding for the engineering, design, and construction of bicycle improvement projects. The advantage of this Plan is that it allows the County and its Towns to prepare for when funding opportunities are available for projects. Many of the proposed improvements are inexpensive and can be easily achieved in the short- and medium-terms. The following chart presents roundabout figures from SHA and other transportation agencies on the costs of common bicycle investments. Many improvements are inexpensive compared to much higher roadway construction costs.

Table 3: Cost Per Unit Estimates

Improvement/ Item	Length/ Count	Unit Cost	Notes	Source
Shared lane markings	1 mile	\$5,000-\$11,000	Assuming sharrows are placed every 250-500 feet.	MD SHA
Bike lane striping	1 mile	\$4,000-\$6,000	Assuming an outside bicycle lane line is painted.	MD SHA
Bike lane symbol and arrow	1 mile	\$1,000-\$2,000	Assuming bike lane symbols are placed every 1/2 mile in rural areas and every 1/4 mile in urban areas	MD SHA
Bike lane and route /wayfinding/ warning signing	1	\$200-\$600	Wayfinding- five signs per mile in each direction. Warning - Two signs per mile in each direction.	MD SHA
Arterial intersection improvements	1	\$10,000-20,000	Includes restriping & bicycle signal detection. No major reconstruction or signal installation.	San Mateo Bike/Ped Plan
Bicycle lane	1 mile	\$1,000	Adding striped shoulders or on-street bike lanes if the old paint does not need to be changed.	www.walkinginfo.org/engineering
Paved shoulders	1 mile	up to \$71,000	minimum width of 4 ft.	BikeSafe FHWA 2006
Roadway surface improvements		varies		
Bridge and overpass access		\$20,000 to \$10,000,000	Depends if retrofit or new reconstruction, deck cross-section; etc.	BikeSafe FHWA 2006
Bicycle-detector loops	1	varies	Varies with intersection size	BikeSafe FHWA 2006
Trail - soft surface	1 mile	up to 40,000		Ped. & Bicycle Information Center
Bike rack - inverted u-shaped	1	\$99-250		Greater Philadelphia Bicycle Coalition - Bike Parking Guide July 2009
Bike rack - post and loop	1	\$130-250		Greater Philadelphia Bicycle Coalition - Bike Parking Guide July 2009
Bike rack - custom design	1	varies		
Bicycle locker	1	\$1,000-\$4,000	parks two bikes	Ped. & Bicycle Information Center

While there are no programmed funds for improvements throughout the County, there are funding sources that can be sought after, which are listed below.

State Funding Sources

- Bicycle Retrofit Program
- Streetscapes and Minor Reconstruction Program
- Community Enhancement and Safety Program
- Primary/Secondary Program
- Maryland Bikeways Program
- Open Space Program
- Community Legacy Program
- Maryland Heritage Areas Program
- Recreational Trails Program

Federal Funding Sources

- Congestion Mitigation and Air Quality (CMAQ) Program
- Transportation Alternatives Program

In July 2012 the U.S. Congress enacted the nation's most recent transportation bill, "Moving Ahead for Progress in the 21st Century" (MAP-21), of which its funding becomes effective October 2012. A notable change in the legislation is the consolidation of existing bicycle and pedestrian programs such as Transportation Enhancements, Safe Routes To School, and the Recreational Trails Program. The Transportation Alternatives Program (TAP) replaces these programs with significantly fewer total dollars. Eligible activities for types of projects include: on-road and off-road trail facilities; safe routes for non-drivers; and abandoned railroad corridors for trails. Under the bill, states will sub-allocate 50% of their TA funds to Metropolitan Planning Organizations (MPOs) and communities for local project grants. States could use the remaining 50% of funding for non-motorized projects or on other transportation projects such as air quality improvements. As this Bicycle Plan is being written, federal guidance has not yet been released and there is uncertainty as to how MDOT will move forward. As the MPO representing Cecil County, WIL-MAPCO will provide assistance to the County and local governments on requirements and procedures for applying for project grants that will be administered through the agency.

Historically, a disproportionate share of transportation funding has gone to roadway projects; this is especially the case in Cecil County. The County and Towns could ensure a more proportionate distribution of funds to bicycle improvements by establishing a dedicated funding source. Some models for generating additional funding include dedicating portions of local sales taxes, the use of capital improvement bonds, and others. A dedicated funding source would support the County and Towns with implementing the recommendations and creating more bikeable, walkable communities. This action requires significant consideration, leadership, and public support and acceptance.

Private funding could also leverage federal and state funds. For example, many foundations and companies provide grants for on-road and off-road bicycle projects, open space preservation, community development and health.

In addition to pursuing various sources of funding, this Plan acknowledges the need for partnerships and assistance from others to achieve the vision of the countywide plan. Partnerships can be a two-way exchange as promotion of bicycling can help other organizations and groups achieve their goals (e.g. health department's goal of improved health, social service agency's goal of well being of its clients, tourism's goal of attracting visitors). The following chart of organizations and sectors should be considered as potential partners.

Table 4: Potential Partnerships for Implementation

Agency/Sector	Area of Support/ Partnership Type
Bicycle Clubs	advocacy, encouragement, advice
Bike Delaware	advocacy, encouragement, advice
Bike Maryland	advocacy, encouragement, advice
Cecil Community College	education
Cecil County Department of Health	education
Cecil County Department of Tourism	encouragement
Cecil County public schools	education
Cecil County social service agencies	education (outreach to low income persons)
Chambers of Commerce	encouragement
Commercial shopping center operators	bicycle parking
Major county employers	education, encouragement, bicycle parking
Maryland Department of Health	education, encouragement, possible funding
Maryland Motor Vehicle Administration	education
Maryland Office of Tourism Development	encouragement
Maryland Transit Administration	engineering, planning
Maryland Transportation Authority	bike access across Hatem Bridge

Section 10. Evaluation

It is recommended that the Cecil County Bicycle Plan should be reviewed and updated every six to ten years. On an annual basis, however, performance measures should be monitored countywide following the adoption of this Plan. Performance measures evaluate success and progress towards achieving identified goals. Summarized below, these measures track the effectiveness of actions that are taken to improve the countywide and local bicycle network. These have been adapted from the Elkton Bicycle Plan and should be applied and monitored countywide for consistency in measures. These performance measures target trends in bicycle usage and improvements in safety. Adjustments should be made over time to ensure the goals are being achieved in a cost-effective and adequate time frame.

Goal 1—Planning/Engineering

- Total mileage of bicycle facility network completed
- Total roadway mileage with BLOC score D or higher
- Total of public use bicycle racks installed
- Bicycle counts on bus racks and at transit stations
- Total plans that include bicycle accommodations
- Total bicycle infrastructure projects implemented (racks, signage, striping)

Goal 2—Education

- Total bike safety education and skills courses taught
- Total public education campaigns launched
- Total bicycle safety information and bicycling maps distributed

Goal 3—Encouragement

- Bicycle traffic count totals in targeted areas
- Number of bike programs formed and participants
- Number of partnerships formed
- Increase in bicycle mode split

Goal 4—Enforcement

- Percentage of officers receiving bicycle law and safety training
- Number of reported bicycle crashes per total number of bicyclists counted and annual traffic volumes

Goal 5—Evaluation

- Percentage of bicycle plan that has been implemented
- Number of bicycle project grant applications applied for and obtained for bicycle improvements

The data for the listed performance measures is readily available to a certain extent. The Census provides periodic bicycle counts and SHA collects bicycle crash data annually. These two measures could possibly be said to be the most important measuring rods of success. Other items such as bicycle counts on bus racks and at transit stations is not being done, but could easily be tracked. Monitoring of measures typically falls under the responsibility of a Bicycle Advisory Committee. Further assistance should be sought from the Maryland SHA, WILMAPCO, and other agencies.

Glossary of Terms

American Community Survey (ACS) - An ongoing survey that provides annual information about the social and economic characteristics of communities across the nation. Information from the survey generates data that help determine how federal and state funds are distributed each year. This data complements the decennial census.

Bicycle - A vehicle having two tandem wheels propelled solely by human power upon which any person or persons may ride.

Bicycle Facilities - A general term denoting improvements and provisions made by public agencies to accommodate or encourage bicycling including parking facilities all bikeways and shared roadways not specifically designated for bicycle use.

Bicycle Route - A designated segment of a transportation system that is the preferred route for bicycle travel. This designation may be established by the jurisdiction having authority through signing or identification on a map.

Bicycle Lane - A portion of a roadway which has been designated by striping signing and pavement markings for the preferential or exclusive use of bicyclists.

Bicycle Level of Comfort (BLOC) - The BLOC is a model that considers a variety of factors that affect the comfort of bicyclists such as existing traffic volumes, posted speeds, percentage of heavy vehicles, outside lane and shoulder widths, and several others. The BLOC produces a roadway score, segment by segment, that is associated with a grade ranging from A (best bicycling conditions) to F (worse conditions). The model represents the comfort level of a hypothetical “typical” bicyclist.

Bicycle-Transit Integration - Providing amenities and services that link bicycling and transit services to extend the distance of trips. By integrating the two modes, bicyclists are able to overcome long distances and physical barriers.

Bikeway - Any road, path, or way open to bicycle travel regardless of whether such facilities are designated for the preferential use of bicycles or are to be shared with other transportation modes.

Bicycle Commuter/Utility Cyclists - An individual who uses a bicycle primarily to reach a particular destination for practical purposes, such as to purchase or deliver goods and services, or to travel to and from work or school. Messengers are classified as utility cyclists.

Ciclovía - Is a program that temporarily makes designated streets available to residents for recreational activities. Vehicle access is briefly closed in the space where the Ciclovía is taking place. It is carried out on a fixed day of the week (usually Sundays, and sometimes on holidays), and lasts for an average of 6 hours. The program has different names in different countries.

Major Collector – Known as just ‘collectors’ in urban areas. These routes provide service to important travel generators (i.e. county seats, towns, schools, recreational and agricultural areas) that are not served by higher classifications. They also provide land access and collects traffic from lower classifications, channeling them to the higher classifications.

MAP-21 - “Moving Ahead for Progress in the 21st Century” is the Country’s latest transportation legislation that was signed on July 6, 2012. MAP-21 is the first long-term highway authorization enacted since 2005, and provides funding for surface transportation programs for fiscal years (FY) 2013 and 2014.

Minor Collector – Only present in rural areas. These routes service local traffic generators, smaller towns, and communities. They also provide land access and provides link for traffic from local roads to the higher classifications.

Minor Arterial – Routes that interconnect principal arterials and provide access to smaller developed areas; links cities and towns. More emphasis is placed on land access than principal arterials.

MUTCD - Manual on Uniform Traffic Control Devices is approved by the Federal Highway Administration as a national standard for placement and selection of all traffic control devices on or adjacent to all highways open to public travel.

Pavement Marking(s) - Painted or applied line(s) (including words, phrases, or numbers) placed on any pavement surface for regulating, guiding, or warning traffic.

Principal Arterials – Provides an integrated network of routes that serve major centers of activities and urban areas. They are the highest traffic volume corridors with long trip lengths and are a link between the higher and lower classifications. Land access is not prohibited.

Roadway - The portion of the highway for vehicle use, including bicycles. That portion of a motor vehicle law which contains regulations governing the operation of vehicular and pedestrian traffic.

Separated Multi-use Path - A bikeway physically separated from motorized vehicular traffic by an open space or barrier and either within the highway right-of-way or within an independent right-of-way.

Shared Lane Marking (Sharrow)- A pavement marking placed in the travel lane that helps bicyclists align

themselves outside of the door-zone. It also brings attention to motorists of bicycle use.

Shared Roadway- A type of bikeway where bicyclists share the roadway with motor vehicles.

Shoulder - A portion of a highway contiguous to the roadway that is primarily for use by pedestrians, bicyclists, and emergency use of stopped vehicles.

Shoulder Bikeway - A type of bikeway where bicyclists travel on the shoulder of the roadway.

Sidewalk - The portion of a highway or street designed for preferential or exclusive use by pedestrians.

Sidewalk Bikeway - Any sidewalk signed and/or striped to permit bicyclists to share the sidewalk right-of-way with pedestrians.

Sight Distance- A measurement of the bicyclist's visibility, unobstructed by traffic along the normal path to the farthest point of the roadway surface.

Traffic Control Devices - Signs, signals, or other fixtures, whether permanent or temporary, placed on or adjacent to a travel way by authority of a public body having jurisdiction to regulate, warn, or guide traffic.

Transit-Oriented Development (TOD) - TOD is a mixed use residential and commercial area designed to make transit successful, walking and bicycling convenient and safe, and provide for a vibrant, livable community.

SHA BLOC Procedure

The BLOC procedure is run only for routes that have a mainline of 1 and that are owned by SHA and are not high function class (1, 11), essentially no interstates.

1) Is the road divided or non-divided? The procedure distinguishes routes as being of two types, one divided and the other non-divided. Divided sections are identified via the use of median type (1, 2, 3, 6, and 7)

Median Type	Description	Divided/ Undivided
1	Curbed	Divided
2	Positive Barrier	Divided
3	Unprotected	Divided
4	None	Undivided
5	Center Turn Lane	Undivided
6	Roundabout	Divided
7	Painted	Divided

2) Update the BLOC Parking Table. Then we update the following using the BLOC parking table:

1. bike_lane (exists (1) or doesn't (0)),
2. the percentage of occupied on-street parking on the left side (lt_ospa),
3. the width of pavement striped for on-street parking (wps);
4. the percentage of occupied on-street parking on the right side (rt_ospa), and
5. percentage of segment with occupied on-street parking (ospa)

* These values in the BLOC Parking Table is an estimate on the percentage of the segment (minus driveways) which there is occupied on-street parking at the time of the survey. Each side is measured in increments of 25% and is recorded separately. The direction of the survey is also noted. Comments in the table should reflect whether the parking is off-peak or not and if it is angled or not.

3) Calculate Heavy Vehicle Factor (HV) – Then we update the percentage of heavy vehicles (HV) which is based on Annual Average Daily Traffic (AADT), Speed Limit and Functional Class (func_cl). Heavy Vehicle changes depending on if the road is rural or urban (see table below)

Urban Routes			
%HV	AADT	Speed Limit (mph)	Functional Class
2	<=10,000	<= 35	>10
3	10,001-20,000	<=35	>10
4	20,001-40,000	<=35	>10
5	40,001-60,000	<=35	>10
3	<= 10,000	36-45	>10
4	10,001-40,000	36-45	>10
5	40,001-60,000	36-45	>10
6	>60,000	<=45	>10
4	<=20,000	>45	>10
5	20,001-40,000	>45	>10
4	>40,000	>45	>10

Rural Routes			
HV	AADT	Speed Limit (mph)	Functional Class
2	<=1,500	<= 35	>10
3	1,501-5,000	<=35	>10
4	5,001-10,000	<=35	>10
5	10,001-20,000	<=35	>10
8	20,001-40,000	<=35	>10
10	40,001-60,000	<=35	>10
3	<=1,500	36-45	>10
4	1,501-5,000	36-45	>10
6	5,001-10,000	36-45	>10
8	10,001-20,000	36-45	>10
10	20,001-40,000	36-45	>10
12	40,001-60,000	36-45	>10
15	>60,000	<=45	>10
4	<=1,500	>45	>10
5	1,501-5,000	>45	>10
7	5,001-10,000	>45	>10
10	10,001-20,000	>45	>10
12	20,001-40,000	>45	>10
15	40,001-60,000	>45	>10
17	>60,000	>45	>10

4) Modify k_factor. The k_factor is updated to 0.08 where aadt>5000 the default is 0.1;

5) Calculate vol15. Vol15, the volume of directional traffic in a 15 minute time period, depends whether the road is one-way or two-way.

Road Type	Equation
One-way road	$(AADT * k_factor) / 4$
Two-way road	$(AADT * k_factor * d_factor) / 4$

*k_factor = use modified k_factor from step 5

*d_factor = default is 0.565

6) Calculate Outside Lane Volume (olv). Outside Lane Volume is a function of vol15 (calculated in step 5) and the total number of directional through lanes (Le)

a) Le depends if the road is one-way or two way

Road Type	Equation
One-way road	= #of through lanes
Two-way road	= #through lanes/2

b) $olv = vol15 / Le$

7) Calculate Effective Speed Limit (spt). Effective speed limit calculation converts the posted speed limit to the speed limit 85% drivers actually drive.

a) Calculate spe

$spe = \text{posted speed limit} - 20$

b) Calculate spt

$spt = (1.1199) * \ln(SPE) + (0.8103)$ WHERE $SPE > 0$; (natural log).

$spt = 0$, if $spe \leq 0$

8) Calculate Effective Width as a function of traffic volume (Wv).

- a) Calculate the total width of the outside lane and shoulder (Wt). Wt varies if the road is divided or non-divided.

Road Type	Equation
Divided	$wt = (RT_ROADWAY_WD / RT_THRU_LA) + RT_OUT_SHLD_WD$
Non-divided	$wt = (RT_ROADWAY_WD / THROUGH_LANES) + RT_OUT_SHLD_WD$

*RT_ROADWAY_WD = right through lane width

*RT_Thru_LA = Number of right through lanes

*THROUGH LANES = # of through lanes

*RT_OUT_SHLD_WD = width of the roadway shoulder on the right side

- b) Determine BLOC through lanes (Bloc_thru_la)

Road Type	Equation
Divided	Bloc thru la = # of right through lanes
Non-divided	Bloc thru la = # of through lanes

- c) Calculate Wv. This is a function of the bloc_thru_la, median type (median_ty), and AADT.

Bloc_thru_la	Median Type	AADT	Wv Equation
2	4 or 5	$\leq 4,000$	$Wv = wt * (2 - (0.00025 * aadt))$
4	4 or 5	$\leq 8,000$	$Wv = wt * (2 - (0.00025 * aadt / 2))$
4	Not 4 or 5	$\leq 8,000$	$Wv = wt * (2 - (0.00025 * aadt / 3))$
6	4 or 5	$\leq 12,000$	$Wv = wt * (2 - (0.00025 * aadt / 3))$
6	Not 4 or 5	$\leq 12,000$	$Wv = wt * (2 - (0.00025 * aadt / 3))$

9) Calculate Average Effective Width of Outside Through Lane (We)

$$We = wv - (10 * ospa / 100)$$

$$We = (wv + (w1 * pc5 / pc5) - (2 * 10 * ospa / 100)) \text{ where } w1 > 0 \text{ and } wps > 0$$

$$We = (wv + (w1 * pc5 / pc5) * (1 - (2 * ospa / 100))) \text{ where } w1 > 0 \text{ and } wps = 0;$$

*w1 = width of paving between the outside lane stripe and the edge of pavement

*wv = effective width as a function of traffic volume

*wps = width of pavement striped for on-street parking

10) Review pavement roughness. Pavement roughness is determined measured using pc5, FHWA's five point pavement surface condition rating.

pc5 rating	round (roughness)
2	≥ 220
3	120-219
4	60-119
5	1-59
3	=0 or null

a) Calculate Pavement

1) Calculate pf

$$pf = (1/pc5) \text{ where } pc5 > 0$$

b) Pavement = pf*pf

11) Determine Volume

If olv ≤ 0 then volume is set as

If olv > 0 then volume = $\ln(olv)$

12) Determine Speed

If spt (calculated in step 7) is ≤ 0 then Speed = 0

If spt is > 0 then Speed = $spt * ((1 + 10.38 * hv / 100) * (1 + 10.38 * hv / 100))$

13) Determine Width

Width = we*we

*we is calculated in step 9

14) Calculate BLOC Score

$$\text{BLOC Score} = 0.507 * \text{volume} + 0.199 * \text{speed} - 0.055 * \text{width} + 7.066 * \text{pavement} + 0.76$$

*Prohibited Bike Routes don't receive a BLOC score. SHA has a table of prohibited bike routes.

Bicycle Plan Field Worksheet Cecil County, Maryland

Please fill out this form for any bike routes that you have traveled on. Use the rating system below for any questions which ask you to rate an attribute. You may use more than one form for each route. You can also note comments on a map, which are available at WILMAPCO's website: www.wilmapco.org/bikececil

1 2 ③ 4 5 6
 Terrible Many Problems Some Problems Good Very Good Excellent

1. Location of Route: (please list all streets/trails used) DE-Chesapeake City Rd/mD-Biddle St

2. What was your: Beginning point? Biddle St Ches. City.
 Ending point? DE Vets. Cemetery.
 Any stops along the way? no.

3. Was bicycle parking available at any of your stops? Please note, location, type of rack, and rating.

Location: _____ 1 2 3 4 5 6

Location: _____ 1 2 3 4 5 6

4. Individual street or trail quality: (circle one) 1 2 ③ 4 5 6
 Please use a separate sheet for each street/trail.

Location: Biddle St / Ches City Rd. Problem Codes: 3-4-17
 (Use the code number below for each item)

Code 1 parallel storm drain grate 2 curb cut needed ③ narrow lane ④ very narrow/no shoulder 5 needs striping or re-striping 6 dangerous merge area 7 blind spot 8 potholes	9 cracked/broken pavement 10 uneven surface or gaps 11 debris (broken glass, gravel, branches) 12 slippery surface (bridge deck, construction plates) 13 bumpy/angled railroad tracks 14 steep slope 15 poor lighting 16 no signage for route/trail ①7 other; please describe <u>TRAFFIC</u>
---	--

5. Intersection quality: (circle one) N/A 1 2 3 4 5 6
 Please use a separate sheet for each intersection.

Location: _____ Problem Codes: _____
 (Use the code number above for each item)

Please also use these codes on maps to show the location of problem areas. You may need additional forms to list all problem locations.

WILMAPCO

6. Overall street or trail quality for route: (circle one) 1 2 3 (4) 5 6
7. Overall intersection quality for route: (circle one) 1 2 3 4 5 6
8. For on-street routes, note motorist behavior: (circle one) (1) 2 3 4 5 6
- Please use a separate sheet for each street.**

Location: Ches City Rd. Problem Codes: ABCDE
(Use the code letter **below** for each item)

Code	Problem
<u>(A)</u>	motorist drove too fast
<u>(B)</u>	motorist passed too close
<u>(C)</u>	motorist did not signal
<u>(D)</u>	motorist ignored my signal
<u>(E)</u>	motorist cut me off
F	motorist ran red lights/stop signs
G	motorist harassed me; please explain _____

Please also use these codes on maps to show the location of problem areas.

9. Overall motorist behavior for route: (circle one) (1) 2 3 4 5 6
10. Overall rating for this route: (circle one) 1 (2) 3 4 5 6
11. Please rate the route that you used for overall bicycle skill level: (circle one)

A – Advanced (B) – Moderate C – Beginner D – Child friendly

12. Please add other comments:

Please give me a bike route along the Coastal-
OFF ROAD 00 And I will bike further - east to
DE City and West to other side of Ches City 0

Name: Jane Date: 2-10-12 Email address: jane.e.hayden@wilmapco.org
Weather: good Time: _____ Phone #: _____

Please fax this form to Dave Gula at 302-737-9584; digital copies can be sent to: dgula@wilmapco.org

WILMAPCO

Bicycle Plan Field Worksheet Cecil County, Maryland

Please fill out this form for any bike routes that you have traveled on. Use the rating system below for any questions which ask you to rate an attribute. You may use more than one form for each route. You can also note comments on a map, which are available at WILMAPCO's website: www.wilmapco.org/bikececil

1 2 3 4 5 6
 Terrible Many Problems Some Problems Good Very Good Excellent

1. Location of Route: (please list all streets/trails used) SEE ATTACHED MAP

2. What was your: Beginning point? 108 COVENTRY CT.
 Ending point? 108 COVENTRY CT.
 Any stops along the way? _____

3. Was bicycle parking available at any of your stops? Please note, location, type of rack, and rating.

Location: _____ 1 2 3 4 5 6

Location: _____ 1 2 3 4 5 6

4. Individual street or trail quality: (circle one) 1 2 3 4 5 6
 Please use a separate sheet for each street/trail.

Location: _____ Problem Codes: _____
 (Use the code number below for each item)

Code	Problem
1	parallel storm drain grate
2	curb cut needed
3	narrow lane
4	very narrow/no shoulder
5	needs striping or re-striping
6	dangerous merge area
7	blind spot
8	potholes
9	cracked/broken pavement
10	uneven surface or gaps
11	debris (broken glass, gravel, branches)
12	slippery surface (bridge deck, construction plates)
13	bumpy/angled railroad tracks
14	steep slope
15	poor lighting
16	no signage for route/trail
17	other; please describe

5. Intersection quality: (circle one) 1 2 3 4 5 6
 Please use a separate sheet for each intersection.

Location: _____ Problem Codes: _____
 (Use the code number above for each item)

Please also use these codes on maps to show the location of problem areas. You may need additional forms to list all problem locations.

WILMAPCO

6. Overall street or trail quality for route: (circle one) 1 2 3 4 5 6
7. Overall intersection quality for route: (circle one) 1 2 3 4 5 6
8. For on-street routes, note motorist behavior: (circle one) 1 2 3 4 5 6
- Please use a separate sheet for each street.

Location: _____ Problem Codes: _____
(Use the code letter below for each item)

Code	Problem
A	motorist drove too fast
B	motorist passed too close
C	motorist did not signal
D	motorist ignored my signal
E	motorist cut me off
F	motorist ran red lights/stop signs
G	motorist harassed me; please explain

BECAUSE I'M RETIRED I TRY TO RIDE WHEN TRAFFIC VOLUME IS LOWEST (9⁰⁰ - 11⁰⁰ A)

Please also use these codes on maps to show the location of problem areas.

9. Overall motorist behavior for route: (circle one) 1 2 3 4 5 6
10. Overall rating for this route: (circle one) 1 2 3 4 5 6
11. Please rate the route that you used for overall bicycle skill level: (circle one)

A - Advanced B - Moderate C - Beginner D - Child friendly

12. Please add other comments: AS I MENTIONED ABOVE I'M RETIRED AND AM ABLE TO RIDE WHEN THERE IS THE LEAST AMOUNT OF TRAFFIC. I'VE BEEN RIDING THIS ROUTE (ELKTON TO FAIR HILL, TO NEWARK (CASHWILL RD.) AND THEN ELKTON NEWARK RD. BACK TO ELKTON, FOR 8 YRS. = OVER 20,000 MILES. OVER THE COURSE OF THIS TIME I'VE EXPERIENCED AT ONE TIME OR ANOTHER EVERY PROBLEM ON YOUR LIST. PROBABLY THE MOST COMMON ONES THAT I ENCOUNTER ARE C & B. ABOUT THE ONLY SUGGESTIONS I CAN RECOMMEND FROM A RIDER STANDPOINT ARE HELMETS & EYEWEAR. I HIGHLY RECOMMEND A COLORFUL VEST, EITHER ORANGE & OR GREEN. USE HAND SIGNALS WHEN POSSIBLE AND ABOVE ALL NEVER ASSUME THAT A VEHICLE IS STOPPING OR TURNING. YOUR LIFE DEPENDS ON IT.

Name: RICHARD FELTMAN Date: 12-20-11 Email address: _____

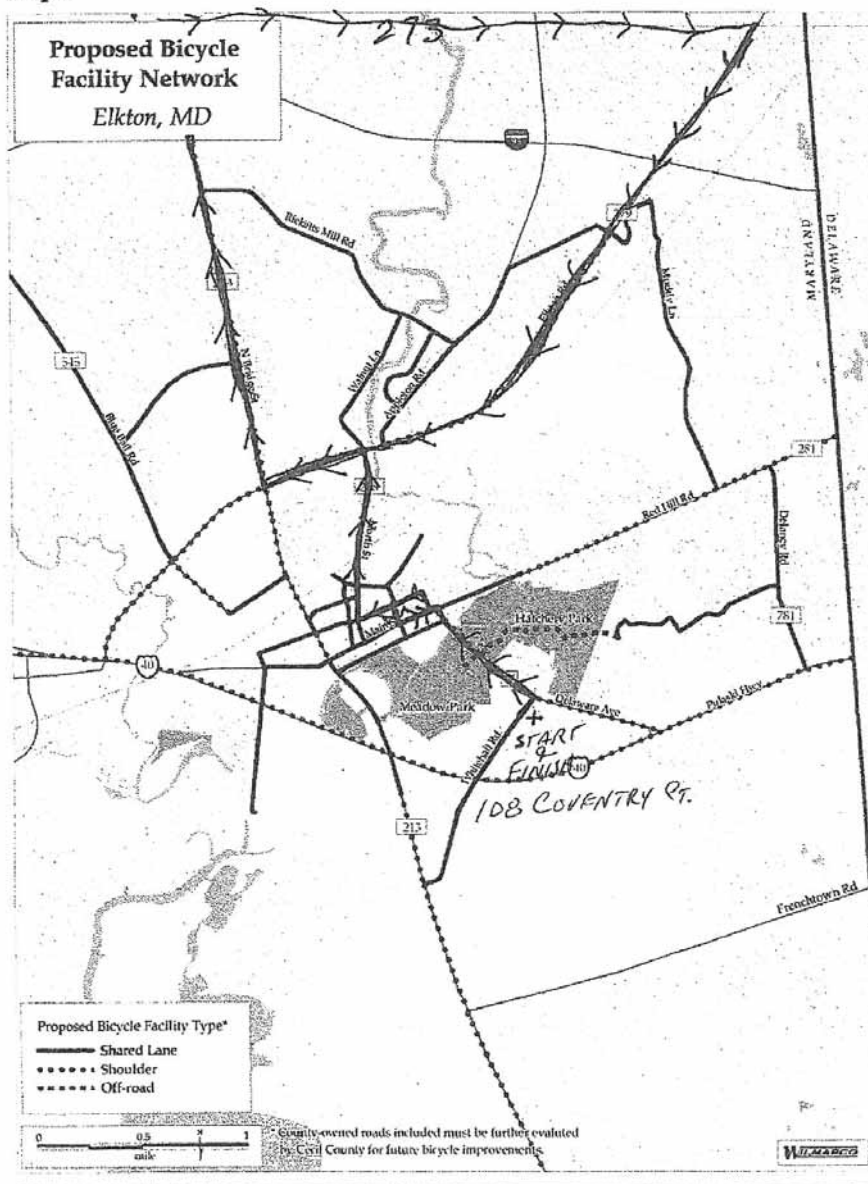
Weather: _____ Time: _____ Phone #: 410-398-5946

Please fax this form to Dave Gula at 302-737-9584; digital copies can be sent to: dgula@wilmapco.org

WILMAPCO

TOWN OF ELKTON BICYCLE PLAN

Map 3:



Bicycle Plan Field Worksheet Cecil County, Maryland

Please fill out this form for any bike routes that you have traveled on. Use the rating system below for any questions which ask you to rate an attribute. You may use more than one form for each route. You can also note comments on a map, which are available at WILMAPCO's website: www.wilmapco.org/bikececil

1	2	3	4	5	6
Terrible	Many Problems	Some Problems	Good	Very Good	Excellent

1. Location of Route: (please list all streets/trails used) Elkton Rd

2. What was your: Beginning point? Cherry Hill TRAFFIC Circle

Ending point? Appleton INTERSECTION

Any stops along the way? NO

3. Was bicycle parking available at any of your stops? Please note, location, type of rack, and rating.

Location: _____ 1 2 3 4 5 6

Location: _____ 1 2 3 4 5 6

4. Individual street or trail quality: (circle one) 1 2 3 4 5 6

Please use a separate sheet for each street/trail.

Location: _____ Problem Codes: 4
(Use the code number **below** for each item)

Code	Problem	
1	parallel storm drain grate	9 cracked/broken pavement
2	curb cut needed	10 uneven surface or gaps
3	narrow lane	11 debris (broken glass, gravel, branches)
④	very narrow/no shoulder	12 slippery surface (bridge deck, construction plates)
5	needs striping or re-striping	13 bumpy/angled railroad tracks
6	dangerous merge area	14 steep slope
7	blind spot	15 poor lighting
8	potholes	16 no signage for route/trail
		17 other; please describe

5. Intersection quality: (circle one) 1 2 3 4 5 6

Please use a separate sheet for each intersection.

Location: _____ Problem Codes: _____
(Use the code number **above** for each item)

Please also use these codes on maps to show the location of problem areas. You may need additional forms to list all problem locations.



6. Overall street or trail quality for route: (circle one) 1 2 3 4 5 6
7. Overall intersection quality for route: (circle one) 1 2 3 4 5 6
8. For on-street routes, note motorist behavior: (circle one) 1 2 3 4 5 6
- Please use a separate sheet for each street.**

Location: _____ Problem Codes: _____
(Use the code letter **below** for each item)

Code	Problem
A	motorist drove too fast
B	motorist passed too close
C	motorist did not signal
D	motorist ignored my signal
E	motorist cut me off
F	motorist ran red lights/stop signs
G	motorist harassed me; please explain _____

Please also use these codes on maps to show the location of problem areas.

9. Overall motorist behavior for route: (circle one) 1 2 3 4 5 6
10. Overall rating for this route: (circle one) 1 2 3 4 5 6
11. Please rate the route that you used for overall bicycle skill level: (circle one)
- A – Advanced B – Moderate C – Beginner D – Child friendly

12. Please add other comments:

Name: _____ Date: _____ Email address: _____

Weather: _____ Time: _____ Phone #: _____

Please fax this form to Dave Gula at 302-737-9584; digital copies can be sent to: dgula@wilmapco.org



Bicycle Plan Field Worksheet Cecil County, Maryland

Please fill out this form for any bike routes that you have traveled on. Use the rating system below for any questions which ask you to rate an attribute. You may use more than one form for each route. You can also note comments on a map, which are available at WILMAPCO's website: www.wilmapco.org/bikececil

1	2	3	4	5	6
Terrible	Many Problems	Some Problems	Good	Very Good	Excellent

1. Location of Route: (please list all streets/trails used) Elkton RD

2. What was your: Beginning point? Newark

Ending point? Elkton

Any stops along the way? N/A

3. Was bicycle parking available at any of your stops? Please note, location, type of rack, and rating.

Location: _____ 1 2 3 4 5 6

Location: _____ 1 2 3 4 5 6

4. Individual street or trail quality: (circle one) 1 2 3 4 5 6

Please use a separate sheet for each street/trail.

Location: Shoulder Problem Codes: 2 11
(Use the code number **below** for each item)

Code	Problem	
1	parallel storm drain grate	9 cracked/broken pavement
2	curb cut needed	10 uneven surface or gaps
3	narrow lane	11 debris (broken glass, gravel, branches)
4	very narrow/no shoulder	12 slippery surface (bridge deck, construction plates)
5	needs striping or re-striping	13 bumpy/angled railroad tracks
6	dangerous merge area	14 steep slope
7	blind spot	15 poor lighting
8	potholes	16 no signage for route/trail
		17 other; please describe

5. Intersection quality: (circle one) 1 2 3 4 5 6

Please use a separate sheet for each intersection.

Location: _____ Problem Codes: _____
(Use the code number **above** for each item)

Please also use these codes on maps to show the location of problem areas. You may need additional forms to list all problem locations.

WILMAPCO

6. Overall street or trail quality for route: (circle one) 1 2 3 4 5 6
7. Overall intersection quality for route: (circle one) 1 2 3 4 5 6
8. For on-street routes, note motorist behavior: (circle one) 1 2 3 4 5 6
Please use a separate sheet for each street.

Location: _____ Problem Codes: _____
 (Use the code letter **below** for each item)

Code	Problem
A	motorist drove too fast
B	motorist passed too close
C	motorist did not signal
D	motorist ignored my signal
E	motorist cut me off
F	motorist ran red lights/stop signs
G	motorist harassed me; please explain _____

Please also use these codes on maps to show the location of problem areas.

9. Overall motorist behavior for route: (circle one) 1 2 3 4 5 6
10. Overall rating for this route: (circle one) 1 2 3 4 5 6
11. Please rate the route that you used for overall bicycle skill level: (circle one)
- A – Advanced B – Moderate C – Beginner D – Child friendly

12. Please add other comments:

Name: _____ Date: _____ Email address: _____

Weather: _____ Time: _____ Phone #: _____

Please fax this form to Dave Gula at 302-737-9584; digital copies can be sent to: dgula@wilmapco.org



Public Comment Sheet**WILMAPCO****Cecil County, MD Bicycle Plan**

Do you have any comments regarding the proposed bicycle network for the County and its municipalities?

- 1) Stripe a number of bicycle lanes in municipalities
- 2) Use Signage and shoulder striping along designated bicycle ways outside of municipalities
- 3) Establish connections between transit and bicycles, including racks on buses, bike racks at transit centers, bike lockers at Amtrak stations
- 4) Consider changes to Site Plan and Subdivisions Regulations

Do you have any comments on bicycle parking locations?

to include bicycle parking, central trails, and linkages to trails.

Consider bicycle racks applications in downtown Elkton, Chesapeake City, and other municipalities in the County. These are essential to establish a mindset that bicycles are accepted and even encouraged.

Bicycle lockers at Amtrak and Commuter Rail Stations are very important too.

Do you have any other comments about cycling in Cecil County?

I have been coming to Chesapeake City for nearly two decades for group bicycle rides. This is a great recreational resource area for cyclists.

⇒ Establish a rail/trail connection to Delaware along the Canal from Chesapeake City. This would be an economic boost for Chesapeake City.

PLEASE PROVIDE ADDITIONAL COMMENTS ON THE BACK OF THIS SHEET.

Optional

Name David T. WhitakerEmail parolines@gmail.com


Address _____

Mail or visit:
WILMAPCO
850 Library Avenue, Suite 100
Newark, DE 19711

Fax:
302/737-9584

Phone:
302/737-6205

E-mail: wilmapco@wilmapco.org
Web page: www.wilmapco.org

Public Comment Sheet		
<h2 style="margin: 0;">Cecil County, MD Bicycle Plan</h2>		
Do you have any comments regarding the proposed bicycle network for the County and its municipalities?		
<div style="border: 1px solid black; min-height: 100px; margin: 5px;"> <p style="font-family: cursive; font-size: 1.2em; margin: 5px;">Keep it safe - more biking on their own paths - biking to work would be great</p> </div>		
Do you have any comments on bicycle parking locations?		
<div style="border: 1px solid black; min-height: 100px; margin: 5px;"> <p style="font-family: cursive; font-size: 1.2em; margin: 5px;">Need more, to say the least</p> </div>		
Do you have any other comments about cycling in Cecil County?		
<div style="border: 1px solid black; min-height: 100px; margin: 5px;"> <p style="font-family: cursive; font-size: 1.2em; margin: 5px;">We need to be able to go from pt A to pt B without getting killed especially on our back roads with no shoulders</p> </div>		
PLEASE PROVIDE ADDITIONAL COMMENTS ON THE BACK OF THIS SHEET.		
Optional		
Name <u>Paul Kehorst</u>	Email _____	
Address <u>138 Woods Way</u> <u>Elkton, MD 21921</u>		
Mail or visit: WILMAPCO 850 Library Avenue, Suite 100 Newark, DE 19711	Fax: 302/737-9584	Phone: 302/737-6205
E-mail: wilmapco@wilmapco.org Web page: www.wilmapco.org		

Cecil County, MD Bicycle Plan
Advisory Committee Meeting

3/15/2012

Local Input Summary

North East

2/1/2012

19 attendees

- Not comfortable having every road require bicycle improvements--a bicycle overlay could be applied with the use of modified road templates
- Nazarene Camp Rd. development coming soon off of MD 272
- Post and loop racks could be used along S. Main St.
- Rolling Mill Rd. bridge is currently in disrepair and closed to traffic
- Add distance to county wide proposed bike routes
- Sticker board survey responses to right

What are your reasons for bicycling? Indicate all that apply.

Commute	3
For exercise/ recreation	12
To shop, run errands, or eat out	3
To visit family / friends	0
I do not bike	1

What improvements would affect your decision to ride a bike? Indicate all that apply.

Better/more on-street bike lanes	11
Better/more off-street bike paths	11
Better connections w/in unincorporated & incorporated areas	10
Maps and guides showing best bicycle routes	1
Lower traffic volumes and speeds	6
Improved lighting	0
Bike Safety/ Maintenance Instruction	1

What is your preferred facility type along the US 40 corridor?

Bicycle lane	0
Cycle Track	3
Separated Shared Use Path	9

Cecilton

2/8/2012

5 attendees

- Residents concerned that bicycle facilities may necessitate taking their property
- Town wants more residents to use Cecilton Park and embrace trail aligned through the area
- MD 213 truck traffic and the corridor becomes much more traveled during summer months. Fluxes in summer traffic are due to vacationers near the Bohemia and Sassafras Rivers and the Bay area.
- Seasonal bicycle banners could beautify the area
- Possibility to connect MD 213 with Kent County, MD and points further south including Kent Island
- Currently privately owned "Bike sharing" at marina- needs County bike map and brochures for destinations. Formally promote tourism program "Boat and Bike"
- Bike rack at Royal Farms is not in plain view
- Dollar General and Subway coming to Town- additional locations for bike parking
- The elementary school would benefit from improved bicycling and walking conditions

Chesapeake City

2/15/2012

21 attendees

- Debris along the narrow sidewalk of the MD 213 bridge has been known to interfere with bicycle travel
- Ramps should be installed at the MD 213 bridge sidewalk approaches
- Basil Ave could be considered as an alternative to the proposed trail along the utility corridor parallel to MD 213

Cecil County, MD Bicycle Plan
Advisory Committee Meeting

3/15/2012

Local Input Summary

Chesapeake City *continued*

- There is a possibility to use a utility corridor adjacent to Biddle St.
- MD 310 (Cayots Corner Rd.) is an important corridor for bike travel and should be examined for possible improvements
- Bed and Breakfast in Town has bike loans for visitors
- Bohemia Ave would be a priority corridor for bicycle racks

Port Deposit* 3/2/2012 12 attendees **bicycle discussion at TOD meeting*

- Challenges with blind curves (i.e. where Main St. turns into Bainbridge Rd., etc.)
- Challenging from north into town
- Bainbridge Development Corporation (BDC) was interested in utilizing a portion of their land for a hiker/biker trail; redevelopment on hold
- MD SHA has begun planning a streetscape project along Main Street, including sidewalks, lighting and amenities
- Needed road connection for bicycles include Bainbridge Road and River Road (MD 222)
- Parking is limited, especially during summer weekends
- Water taxi service between Perryville, Havre de Grace, and Port Deposit has been studied by others, but there are no current plans to implement such service
- Significant goal is to increase visitation to the town--national recognition of the LSHG part of the John Smith and Star Spangled Banner trail systems should attract an increased number of users
- **Transit Study Public workshop on April 17, 2012**

Rising Sun 3/13/2012 16 attendees

- In the past, MD 274 was considered for potential designation as a state bicycle route, but was excluded by SHA--reasons are unknown
- Due to narrow lanes along Main St., sidewalk riding occurs frequently
- There is a need to address ill-mannered bicyclists riding in Town
- The stretch of Main St. between Martin's food market and Town Hall is a main concern (0.3 miles).
- The Town lacks bicycle parking
- There was a recent bicycle crash on Walnut St
- Mount, Pearl, and Walnut Streets move higher volume traffic into Town, and directing bicyclists on these streets require traffic calming
- Town is not interested in a streetscaping approach to slow traffic, however, other traffic calming measures would be considered



**"THE WAY LIFE
SHOULD BE"**

JOSEPH A. ZANG, III
Mayor

MICHAEL D. COOPER
Council Member

CRAIG DEVARY
Council Member

TERRY MOORE
Council Member

ROBERT BOULDEN
Council Member

BRENDA COCHRAN
Town Administrator

KIM ROLAND
Clerk/Treasurer

TELEPHONE
410-275-2692

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WEB ADDRESS
www.ceciltonmd.gov

TOWN OF CECILTON

117 WEST MAIN STREET
P.O. BOX 317
CECILTON, MARYLAND 21913

November 14, 2012

County Commissioners
County Administrative Building
200 Chesapeake Blvd., Suite 2100
Elkton, Maryland 21921

Dear Cecil County Commissioners:

The Town of Cecilton is pleased to endorse the 2012 Cecil County Bicycle Master Plan. We have worked with Cecil County, MDOT, SHA, WILMAPCO and many other stakeholders to develop a shared vision for improving bicycling conditions for both the County and incorporated Towns. This Plan strengthens our County's transportation future. An interconnected bicycle network is a key to improving the quality of life for our residents and expanding transportation choice.

The state of Maryland is presently recognized nationally for bicycling, and we are eager to improve conditions specifically in Cecil County. By working together, we have an opportunity to implement regional greenways throughout our County and local bicycle routes to promote safe and enjoyable bicycle travel. Promoting Cecil County and its Towns as bicycle tourist destinations will have notable impacts on our visibility and economic vitality.

The Town of Cecilton is in support of the Cecil County Bicycle Plan and urge full consideration for your adoption. We look forward to working with the County, Towns, and other stakeholders in the future to strengthen our efforts in achieving the goals of our bicycle plan.

Sincerely,


Joseph A. Zang, III
Mayor

Cc: Eric Sennstrom, Director, Cecil County Planning and Zoning
Tigist Zegeye, Executive Director, WILMAPCO



*Town Commissioners of Charlestown
Post Office Box 154
Charlestown, Maryland 21914*

Phone 410-287-6173

Fax 410-287-6620

December 4, 2012

Office of the County Executive
County Administrative Building
200 Chesapeake Blvd., Suite 2100
Elkton, MD 21921

Dear Executive Moore;

The Town of Charlestown is pleased to endorse the 2012 Cecil County Bicycle Master Plan. We have worked with Cecil County, MDOT, SHA, WILMAPCO and many other stakeholders to develop a shared vision for improving bicycling conditions for both the County and incorporated Towns. This Plan strengthens our County's transportation future. An interconnected bicycle network is a key to improving the quality of life for our residents and expanding transportation choice.

The Town of Charlestown is in support of the Cecil County Bicycle Plan and urge full consideration for you adoption. We look forward to working with the County, Towns, and other stakeholders in the future to strengthen our efforts in achieving the goals of our bicycle plan.

Sincerely,

W.D. "Wib" Pumpaly
Town Administrator

Cc: Eric Sennstrom, Director, Cecil County Planning and Zoning
Tigist Zegeye, Executive Director, WILMAPCO

**Town of Charlestown
To Endorse the Cecil Co. Bicycle Plan
Resolution 2012-07**

WHEREAS, the Charlestown President and Commissioners are the elected governing body for the Town of Charlestown, Maryland; and

WHEREAS, the Charlestown President and Commissioners acknowledge that a bicycle plan is harmonious with the Comprehensive Plan of Charlestown; and

WHEREAS, the Cecil County Bicycle Plan was developed by MDOT, SHA, WILMAPCO, municipalities, Town officials and residents; and

WHEREAS, the Town of Charlestown was a participant in developing the Cecil County Bicycle Plan that will expand transportation choices, implement regional greenways, local bicycle routes and promote tourism in the towns of Cecil County; and

WHEREAS, the Cecil County Bicycle Plan presents recommendations to increase bicycle usage and enhance bicycle safety by offering a safe bicycle network with connections to county towns, other methods of transportation, and by developing and implementing education and activities; and

WHEREAS, the Cecil County Bicycle Plan formulates specific recommendations for the Town of Charlestown to enrich bicycling and tourism, as well as, bicycle signage and suggestions for bicycle parking; and

NOW, THEREFORE, BE IT RESOLVED that the Town of Charlestown President and Commissioners have hereby voted to endorse the Cecil County Bicycle Plan.

Dated this 30th day of November 2012

By the Commissioners of Charlestown


Mary Carol Durange, Vice-President

RESOLUTION NO. 12.10.2012A**RESOLUTION OF THE TOWN OF CHESAPEAKE CITY, MARYLAND
TO ENDORSE THE CECIL COUNTY BICYCLE PLAN**

WHEREAS, the Chesapeake City Mayor and Council have been designated the governing body for Chesapeake City, Maryland; and

WHEREAS, the Chesapeake City Mayor and Council recognize that encouraging bicycle travel is consistent with the strategies of the Chesapeake City Comprehensive and Revitalization Plans; and

WHEREAS, the Cecil County Bicycle Plan was developed with input from an advisory committee, including state and local agencies, municipalities, residents and other stakeholders; and

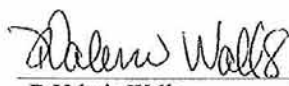
WHEREAS, the Town of Chesapeake City participated in developing a comprehensive bicycle plan to expand transportation choice and opportunity for bicycle commuting, recreation, and tourism in Cecil County and the Towns; and

WHEREAS, the Cecil County Bicycle Plan makes recommendations to increase bicycle usage and enhance safety by providing a safe bicycle network with connections to Towns, links to other modes of transportation, and to develop education programs, and encouragement activities; and

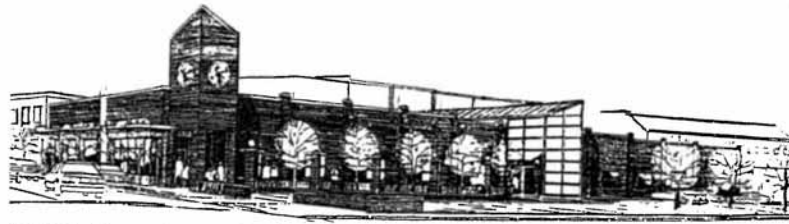
WHEREAS, the Cecil County Bicycle Plan also makes specific recommendations for the Town of Chesapeake City to enhance bicycling and tourism related opportunities, to provide bicycle parking and signage; and

NOW, THEREFORE, BE IT RESOLVED that the Chesapeake City Council does hereby endorse the final report and recommendations of the Cecil County Bicycle Plan.

12/10/12
Date:


D. Valerie Walls,
Clerk/Treasurer


Dean Geracimos, Mayor
Chesapeake City, Maryland



Joseph L. Fisona, Mayor

Board of Commissioners:

Charles H. Givens, Sr.

Charles E. Hicks V

Mary Jo Jablonski

Earl M. Piner, Sr.

Town Administrator:

Lewis H. George, Jr.

November 16, 2012

**Cecil County Board of Commissioners
Cecil County Administration Building
200 Chesapeake Boulevard, Suite 2100
Elkton, Maryland 21921**

re: Cecil County Bicycle Master Plan – Letter of Support

Dear Honorable Commissioners:

This letter is written on behalf of the Town of Elkton to support Cecil County's Bicycle Master Plan, which we feel is an important adjunct to the Town of Elkton's Bicycle Master Plan, adopted in 2011.

The County's initiative is to be applauded, given the importance of encouraging the use of bicycles as alternative means of traveling, as well as healthful exercise. The goals set forth in Cecil County's Bicycle Master Plan target the necessary elements to assure the success of this program and speak to transportation options for citizens to seriously consider.

We wholly support Cecil County's Bicycle Master Plan and we look to the County Board's exceptional leadership to ensure the success of this program.

Sincerely yours,

Joseph L. Fisona,
Mayor

TOWN OF ELKTON

Elkton Municipal Building, 100 Railroad Avenue, P.O. Box 157, Elkton, Maryland 21922-0157
TELEPHONE: (410) 398-0970 FAX: (410) 392-6633 E-MAIL: administration@elkton.org WEBSITE: www.elkton.org

MAYOR
Robert A. Fisher

COMMISSIONERS
Charles Berkowich
Travis Marion
Stephen Naughton
Joanne Osborne

TOWN ADMINISTRATOR
Calvin A. Bonenberger Jr.



RISINGSUNMD.ORG

JANUARY 11, 2013

Office of the County Executive
County Administrative Building
200 Chesapeake Blvd., Suite 2100
Elkton, MD 21921

Dear Executive Moore;

The Town of Rising Sun is pleased to endorse the idea of the 2012 Cecil County Bicycle Master Plan presented by WILMAPCO on behalf of Cecil County. Prior to the adoption of the proposed Rising Sun component of the Plan, the Commissioners motioned to form a local advisory committee. The committee will be responsible for further discussion of bicycle route options for our Town.

The Town of Rising Sun is in support of the Cecil County Bicycle Plan and urge full consideration for your adoption. We look forward to working with the County, Towns, and other stakeholders in the future to strengthen our efforts in achieving the goals of our bicycle plan.

Sincerely,

Calvin A. Bonenberger Jr.
Town Administrator

Cc: Eric Sennstrom, Director, Cecil County Planning and Zoning
Tigist Zegeye, Executive Director, WILMAPCO

1 East Main Street • PO Box 456 • Rising Sun, Maryland 21911 • Tele (410) 658-5353 • Fax (410) 658-5244



Town Commissioners of Perryville

515 Broad Street, P.O. Box 773
Perryville, Maryland 21903-0773
(410) 642-6066
(410) 642-6391 (Fax)
Email: townhall@perryvillemd.org

Mayor
James L. Eberhardt

Commissioners
Barbara A. Brown
Michael A. Dawson
Michelle Linkey
Raymond A. Ryan III

Town Administrator
Denise Breder

February 5, 2013

Tari Moore, County Executive
Cecil County Government
200 Chesapeake Boulevard, Suite 2100
Elkton, MD 21921

Re: Cecil County Bicycle Plan

Dear County Executive Moore:

This letter is in response to the WILMAPCO / Cecil County Bicycle Plan. The plan incorporates the bicycle routes that are in the Perryville Greenway Plan approved by the Town Board on March 6, 2012.

On behalf of the Town Board, I am both pleased and supportive of the Perryville component of the Cecil County Bicycle Plan. The Town appreciates the opportunity to be a part of this pro-active approach in assisting with transportation needs throughout our County. We urge implementation of the Cecil County Bicycle Plan.

Sincerely,



James L. Eberhardt
Mayor

CC: President Robert Hodge and the Cecil County Council
Eric Sennstrom, Cecil County Planning and Zoning Director
Tigist Zegeye, WILMAPCO, Executive Director

Lower Susquehanna
Heritage Greenway, Inc.
4948 Conowingo Road
Darlington, Maryland 21034
410-457-2482
lshginfo@comcast.net
www.hitourtrails.com



November 26, 2012

The Honorable James Mullin, President
The Honorable Diana Broomell, Vice President
The Honorable Robert Hodge
The Honorable Tari Moore
The Honorable Michael Dunn
County Commissioners
County Administrative Building
200 Chesapeake Blvd., Suite 2100
Elkton, MD 21921

Dear Cecil County Commissioners:

The Lower Susquehanna Heritage Greenway is pleased to support the 2012 Cecil County Bicycle Master Plan. Cecil County will benefit tremendously from an interconnected bicycle network, which is a key to improving the quality of life for our residents and expanding transportation choice. This Plan strengthens our County's transportation future.

By working together, we have an opportunity to implement regional greenways throughout our County and local bicycle routes to promote safe and enjoyable bicycle travel. Promoting Cecil County and its Towns as bicycle tourist destinations will have notable impacts on our visibility and economic vitality.

The Lower Susquehanna Heritage Greenway is in full support of the adoption and implementation Cecil County Bicycle Plan. We look forward to working with the County, Towns, and other stakeholders in the future to strengthen our efforts in achieving our shared goals.

Sincerely,

A handwritten signature in purple ink that reads "Mary Ann Lisanti".
Mary Ann Lisanti
Executive Director

Cc: Eric Sennstrom, Director, Cecil County Planning and Zoning
Tigist Zegeye, Executive Director, WILMAPCO

Wilmington Area Planning Council

850 Library Avenue, Suite 100
Newark, Delaware 19711
302-737-6205; Fax 302-737-9584
From Cecil County: 888-808-7088
e-mail: wilmapco@wilmapco.org
web site: www.wilmapco.org

WILMAPCO Council:

Joseph L. Fisona, Chair
Mayor of Elkton

Connie C. Holland, Vice-chair
Delaware Office of State Planning
Coordination, Director

Shailen P. Bhatt
Delaware Dept. of Transportation
Secretary

John P. Buchheit, III
Mayor of Delaware City

Thomas P. Gordon
New Castle County
County Executive

Donald A. Halligan
Maryland Dept. of Transportation
Director, Office of Planning and
Capital Programming

Tari Moore
Cecil County
County Executive

Lauren L. Skiver
Delaware Transit Corporation
Executive Director

Dennis P. Williams
Mayor of Wilmington

WILMAPCO Executive Director
Tigist Zegeye

RESOLUTION

BY THE WILMINGTON AREA PLANNING COUNCIL (WILMAPCO) TO ENDORSE THE CECIL COUNTY BICYCLE MASTER PLAN

WHEREAS, the Wilmington Area Planning Council (WILMAPCO) has been designated the Metropolitan Planning Organization (MPO) for Cecil County, Maryland and New Castle County, Delaware by the Governors of Maryland and Delaware, respectively; and

WHEREAS, the WILMAPCO Council recognizes that expanding and encouraging bicycle travel is consistent with the strategies of the 2040 Regional Transportation Plan (RTP); and

WHEREAS, the Cecil County Bicycle Plan is a comprehensive plan to expand transportation choice and opportunity for bicycle commuting, recreation, and tourism in Cecil County and its incorporated Towns; and

WHEREAS, the Cecil County Bicycle Plan was developed with input from an advisory committee, including state and local agencies, municipalities, residents and other stakeholders; and

WHEREAS, the Cecil County Bicycle Plan makes recommendations for Cecil County and its Towns to increase bicycle usage and enhance safety by providing a safe bicycle network with connections between Towns, links to other modes of transportation, and to develop education programs and encouragement activities;

NOW, THEREFORE, BE IT RESOLVED that the WILMAPCO Council does hereby endorse the final report and recommendations of the Cecil County Bicycle Plan.

Date: January 10, 2013


Joseph Fisona, Chairperson
Wilmington Area Planning Council

WILMAPCO

Partners with you in transportation planning

