

# **Western Baltimore County Pedestrian and Bicycle Access Plan**

As Adopted by the  
Baltimore County Council  
November 19, 2012

*[www.baltimorecountymd.gov/westbikeped](http://www.baltimorecountymd.gov/westbikeped)*

COUNTY COUNCIL OF BALTIMORE COUNTY, MARYLAND  
Legislative Session 2012, Legislative Day No. 19

Resolution No. 83-12

---

Councilmembers Quirk, Oliver, Huff & Almond

---

By the County Council, November 5, 2012

---

A RESOLUTION of the Baltimore County Council to adopt the Western Baltimore County Pedestrian and Bicycle Access Plan.

WHEREAS, the Eastern Baltimore County Pedestrian and Bicycle Access Plan for the Fifth, Sixth and Seventh Councilmanic Districts was adopted by the County Council as a part of the Master Plan on November 6, 2006 (Resolution 87-06); and

WHEREAS, the Western Baltimore County Pedestrian and Bicycle Access Plan for the First, Second, Third and Fourth Councilmanic Districts was prepared by the Department of Planning in response to the recommendation of the Master Plan for the development of a countywide plan for a comprehensive bicycle network and improved pedestrian facilities and transportation options; and

WHEREAS, the Plan was developed by an advisory committee composed of citizens, elected officials, and representatives of county and state government agencies; and

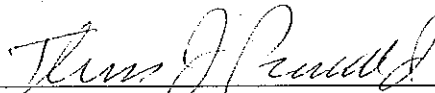
WHEREAS, on April 5, 2012, the Baltimore County Planning Board held a public hearing on the proposed Plan and voted, on April 19, 2012, to approve the Plan as an amendment to the Baltimore County Master Plan 2020; and

WHEREAS, the County Council held a public hearing on the proposed Plan on October 15, 2012; now, therefore

BE IT RESOLVED BY THE COUNTY COUNCIL OF BALTIMORE COUNTY, MARYLAND, that the Western Baltimore County Pedestrian and Bicycle Access Plan, a copy of which is attached hereto and made a part hereof, be and it is hereby adopted and incorporated into the Baltimore County Master Plan 2020, subject to such further amendments as deemed advisable by the County Council.

READ AND PASSED this **19TH** day of **NOVEMBER**, 2012.

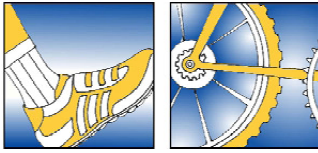
BY ORDER

A handwritten signature in cursive script, appearing to read "Thomas J. Peddicord, Jr.", written over a horizontal line.

Thomas J. Peddicord, Jr.  
Secretary

ITEM: **RESOLUTION 83-12**

## Executive Summary



This plan is the second phase of a county-wide master plan for improving bicycle and pedestrian access. It covers the western side of the urban county. Like the first phase of the plan for the eastern side of the county, the second phase was developed through a planning process in which citizens living in the area indicated the how they would like to make Baltimore County more accessible by walking and bicycling. They addressed each of the five “E’s” of active transportation planning, including Engineering, Education, Encouragement, Enforcement, and Evaluation.

The Engineering section of this plan provides recommendations for improved pedestrian facilities, on-road bicycle facilities, and shared used paths. The Encouragement, Education and Enforcement sections discuss supportive programs, such as safety training, as a necessary part of creating a successful walking and bicycling environment.

The fifth “E,” Evaluation and Planning, is perhaps the most important of all the topics discussed in the plan. This section refers to the variety of strategies that will be needed to implement the plan. Because most of the urban county has been developed in a conventional suburban pattern, retrofitting improvements for pedestrian and bicycling will be a challenge, both physically and financially. The plan’s recommendations and priorities are directed toward the most cost-effective ways of improving the walking and bicycling environment, and stressing alternatives to county funding, which are especially important under the current economic climate. For example, for many roads, bike lanes can be created by narrowing traffic lanes, accomplished when a road is resurfaced at a minimal cost. Grants can be obtained to assist with the construction of some facilities, and community and private involvement can also be sought.

It will take a considerable investment in time as well as funding to create a county-wide active transportation system. Through its recommendations, this long-range planning document provides the guidance needed to begin the process. With the adoption of this plan, improvements and programs can become eligible for outside funding. Developers can incorporate facilities into their projects, and communities can begin to look for ways to assist as volunteers.

As the county continues to evolve, creating environments that support walking and bicycling will become increasingly important in maintaining the county’s quality of life. Walking and bicycling provide the basic elements of a multi-modal transportation system, a system that will be less reliant on oil, produce less pollution, and address traffic congestion. In addition, the many other benefits that come from these active transportation modes—better physical health, expanded recreational opportunity, and improved community cohesion—will substantially contribute to ensuring the sustainability and livability of Baltimore County’s communities.

# Contents

<b>Introduction</b> .....	<b>1</b>
Plan Scope .....	1
Plan Phases .....	2
Why Walking and Bicycling? .....	2
Transportation and Sustainability .....	2
Health .....	3
Livability/Quality of Life .....	4
Putting It All Together .....	4
Planning Process .....	5
<b>Engineering: Building Walking and Bicycling Facilities</b> .....	<b>8</b>
Shared Use Paths .....	8
Types of Shared Use Paths .....	9
Factors that Encourage/Discourage Use .....	9
Issues and Opportunities for Constructing Shared Use Paths .....	10
Recommendations for Shared Use Paths .....	11
Walking .....	19
Types of Improvements .....	19
Factors that Encourage/Discourage Walking .....	20
Issues and Opportunities in Constructing Sidewalks .....	21
Recommendations for Pedestrian Improvements .....	22
On-street Bikeways .....	37
Types of On-street Bicycle Facilities .....	37
Factors that Encourage/Discourage Bicycling .....	38
Issues and Opportunities in Constructing On-street Bikeways .....	40
Recommended On-street Bicycle Facilities .....	40
Map Recommendations .....	41
Signature Streets .....	43
Targeted Pedestrian, Bicycle and Shared Use Path Improvements .....	62
<b>Education</b> .....	<b>66</b>
Training Programs for Adults .....	66
Training Programs for Children and Youth .....	66
Education Programming Recommendations .....	67
<b>Encouragement</b> .....	<b>68</b>
Encouragement Programming Recommendations .....	69
Communications and Media .....	71
Communications Recommendations .....	71
Economic and Business Development .....	73
Business Promotion Recommendations .....	73

*Continued, Next Page*

# Contents, Continued

<b>Enforcement and Traffic Safety</b> .....	<b>74</b>
Enforcement Recommendations .....	75
<b>Evaluation and Planning (Implementation)</b> .....	<b>76</b>
An Active Transportation Policy .....	76
Policies, Management and Oversight .....	77
Implementation of Construction Projects .....	79
Specific Recommendations for Shared Use Paths .....	80
Specific Recommendations for Pedestrian Facilities .....	80
Specific Recommendations for On-street Bicycle Facilities .....	81
Evaluation and Reporting .....	81
Funding Sources and Implementation Strategies .....	82
<b>Appendices</b> .....	<b>87</b>
A: Sample Survey .....	88
B: Factors that Encourage/Discourage Walking And Bicycling .....	94

## Maps

Proposed Shared Use Path Improvements .....	13
High Priority Shared Use Path Improvements .....	18
District 1, Proposed Pedestrian Improvements .....	24
District 1, High Priority Pedestrian Improvements .....	27
District 2, Proposed Pedestrian Improvements .....	28
District 2, High Priority Pedestrian Improvements .....	30
District 3, Proposed Pedestrian Improvements .....	31
District 3, High Priority Pedestrian Improvements .....	33
District 4, Proposed Pedestrian Improvements .....	34
District 4, High Priority Pedestrian Improvements .....	36
District 1, Proposed Bicycle Improvements .....	45
District 1, High Priority Bicycle Improvements .....	49
District 2, Proposed Bicycle Improvements .....	50
District 2, High Priority Bicycle Improvements .....	53
District 3, Proposed Bicycle Improvements .....	54
District 3, High Priority Bicycle Improvements .....	57
District 4, Proposed Bicycle Improvements .....	58
District 4, High Priority Bicycle Improvements .....	61
Targeted Improvements in Catonsville-Halethorpe Area .....	63

# Introduction

## Plan Scope

The Baltimore County Pedestrian and Bicycle Access Plan is a master plan for constructing pedestrian and bicycle improvements. The plan was developed by an advisory committee composed of citizens interested in walking and bicycling and representatives from county and state government agencies. The plan is based on the needs and desires expressed by citizens who live or work in the area.

The main impetus for undertaking this planning process is the Baltimore County Master Plan, which calls for a county-wide plan for bicycle and pedestrian facilities to improve the variety of transportation options available to its citizens.

The master plan goals for pedestrian and bicycle facility improvements have guided the planning process.

**Pedestrian Access Goal:** Develop and maintain pedestrian facilities that provide desirable levels of accessibility and safety for pedestrians, and encourage walking for both utilitarian and recreational purposes.

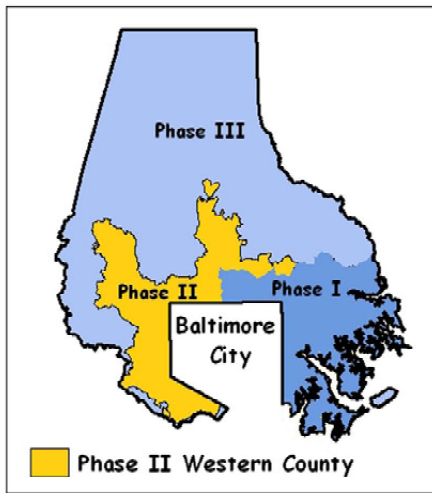
**Bicycle Access Goal:** Develop and maintain bicycle facilities that provide an adequate level of convenience, mobility, and safety for bicyclists at all levels of experience, and encourage bicycle trips for utilitarian, recreational and commuting purposes.

In addition to recommendations for constructing walking and bicycling facilities, this plan also considers the supportive programs and strategies that are necessary to creating a successful walking and bicycling environment. Active transportation planning—planning for walking and bicycling—is a five-pronged process known as the “5 Es”:

- **Engineering:** The design and construction of physical facilities
- **Encouragement:** Programs that encourage use of the facilities
- **Education:** Training for motorists, bicyclists and pedestrians on the safe use of the facilities
- **Enforcement:** Activities to enforce the safe use of the facilities
- **Evaluation and Planning:** Plan implementation strategies, including regular monitoring of the implementation progress, and adjusting the plan as needed.

This plan addresses each of the 5 Es with both short term and long term recommendations for refashioning the Baltimore County environment to support walking and bicycling as viable transportation modes.





## Plan Phases

The process for creating a Pedestrian and Bicycle Access Plan for the entirety of Baltimore County is being conducted in three phases. Phase One, the Eastern County Pedestrian and Bicycle Access Plan, was adopted in 2006. It covers the urban area inside the URDL (Urban/Rural Demarcation Line) in the Fifth, Sixth, and Seventh Council Districts.

The second phase is this plan, the Western Baltimore County Pedestrian and Bicycle Access Plan, covering approximately 108 square miles located within the URDL in Council Districts One, Two, Three and Four, including the communities of Arbutus, Catonsville, Cockeysville, Hunt Valley, Lutherville, Owings Mills, Pikesville, Randallstown, Timonium, and Woodlawn. The third and final phase for northern Baltimore County will be completed in the future.



## Why Walking and Bicycling?

There are a number of benefits that can come from encouraging Baltimore County residents to walk and bicycle. Walking and bicycling are gaining popularity nationwide as an alternative to the automobile for short trips. Promoting walking and bicycling can help ease congestion, address the national obesity crisis, support environmental sustainability, and enhance community livability.

## Transportation and Sustainability

The road network that has been developed in the U.S. over the last 50 years is a remarkable system, providing residents and commerce with unprecedented mobility—locally, regionally, across the state, and across the country.

As the road network developed, both the number of automobiles and the number of miles driven has increased dramatically. Total vehicle miles traveled nationally is about 3 trillion miles per year. In Baltimore County, the number of miles traveled in the county grew by 75% between 1980 and 2007, at a rate almost 4 times greater than population growth.

Because of the growth and dependency on motor vehicles as the major component of the transportation system, questions have arisen about its sustainability. Major issues concern the use of and access to oil, greenhouse gas emissions, and climate destabilization. Locally, air and water pollution are a major concern. The Baltimore region is rated as a “severe” nonattainment area for ozone pollution, directly related to vehicle emissions. In Baltimore County, the motor vehicles traveling 22.3 million miles daily generate 12.7 million tons of CO<sub>2</sub> emissions. In addition, cars and trucks deposit oil, antifreeze, grease

Top: The western county plan is the second phase of a county-wide Pedestrian and Bicycle Access Plan.

Bottom: The Phase II plan area includes the urban portions of Council Districts 1, 2, 3, and 4.



and metals onto streets and driveways. Storm runoff transports these contaminants into ground water, local waterways and the Chesapeake Bay.

New roadway construction cannot keep pace with ever increasing travel demand, making continued congestion inevitable. Experience has shown that vehicle travel tends to expand in ways that absorb much of the available capacity, so new and widened roads end up stimulating more travel, using up the new capacity, and making the road network just as congested as it was before. Consequently, in metropolitan areas such as the Baltimore region, over 32 percent of daily travel occurs in congested conditions—and congestion continues to climb. Annual delay per person has reached an average of 36 hours per year, costing each driver over \$900 in lost wages and wasted fuel.

In 2007-2008, the Baltimore Metropolitan Council conducted a regional Household Travel Survey. More than 85 percent of all trips in the Baltimore region are made by automobile. Only two percent of commuter trips and 6 percent of non-commuter trips are made by walking. Bicycling accounts for fewer than 1 percent of all trips. According to the 2009 National Household Transportation Survey, nationally, walking trips accounted for 10.9 percent of all trips, and 1 percent of all trips reported were taken by bike. National figures show that walking and bicycling are gaining in popularity. Reported trips by either walking or bicycling have increased by 25 percent since 2001.

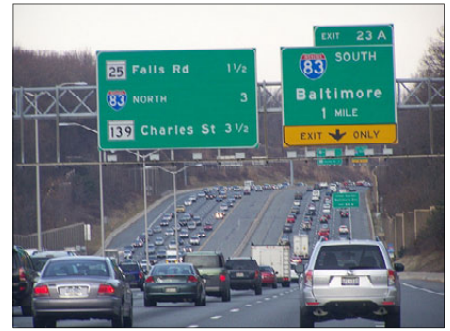
Providing facilities for walking and bicycling is an important part of an overall strategy to coordinate land use and transportation planning with the goal of creating more sustainable communities. By encouraging more compact, mixed use land use patterns combined with transit, walking and bicycling facilities, citizens will not have to rely exclusively on the automobile to reach their destinations. Active transportation—walking and bicycling—is the most sustainable alternative for short trips.

## Health

The federal Centers for Disease Control and Prevention (CDC) links many health problems to poor diet and physical inactivity. These problems, which include diabetes and obesity, contribute to the rising cost of health care for all Americans.

Obesity has become epidemic in American society, and Maryland ranks as one of the more problematic states. Health surveys in Maryland show that more than half of the residents of the state are either overweight or obese, and the rate continues to rise. In 2007, the prevalence of adult obesity in Baltimore County was 28 percent.

While walking and bicycling for daily transportation can be an important means of physical activity, the frequency that people walk



*Above: Heavy reliance on the automobile for transportation is producing multiple impacts, including global warming from car exhaust.*

*Below: Walking, biking and transit use offer more sustainable choices.*



or bicycle has declined dramatically over the past few decades. Health officials are encouraging a healthy diet, combined with regular physical activity, to reduce the risk of cardiovascular disease and other ailments. Walking and bicycling are inexpensive and practical activities that people can most easily and routinely incorporate into their daily lives. Reversing the decline in rates of walking and biking for transportation, especially for short trips, presents a major opportunity for improving health among children, adolescents, and adults.

Furthermore, health impacts from air pollution is a serious problem in the Baltimore region and elsewhere in the nation. It is estimated that air pollution is responsible for over 600,000 deaths annually nationwide. Less driving means improvements in air quality—which helps to reduce respiratory diseases and chronic conditions such as asthma. A short, four-mile round trip by bicycle keeps about 15 pounds of pollutants out of the air.

### **Livability/Quality of Life**

Walking and bicycling are important components of vibrant public spaces, dynamic neighborhoods, and active and pleasant streets. Providing more travel options supports independence in seniors, children and youth, and others who cannot or choose not to drive.

Walking and bicycling help to promote interaction between neighbors, strengthen connection to the community, provide ‘eyes-on-the-street’ security, and support local retail activity. By comparison, streets and places where people are not present often feel uncomfortable and sterile.

Promoting livability through walking and bicycling has an added benefit—increases in home values. Recent research has found that homes located in more walkable neighborhoods—those with a mix of common daily shopping and social destinations within a short distance—command a price premium and/or have maintained more of their value when the real estate market declines, compared to similar homes in less walkable areas.

Helping to make neighborhoods more walkable and bikeable not only builds stronger communities, it is also an economically sound investment.

### **Putting It All Together**

Since walking and bicycling provide so many benefits, why don’t more people do it? As the Baltimore region developed outward from the city center, the street network, land use patterns and



*Top: Land uses and streets designed with pedestrians and bicyclists in mind encourage social interaction and create a sense of community.*

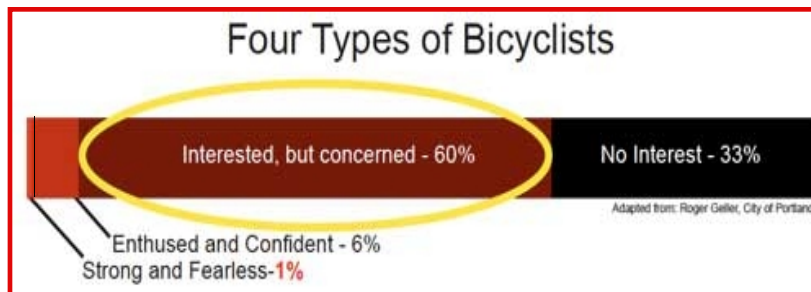
*Bottom: A Catonsville resident walks her dog on the #8 Trolley Trail. This trail links Frederick Road to Edmondson Avenue, connecting residents to schools and shops.*

planning and design practices prioritized automobile access. As a result, sidewalks, bikeways and trails are absent in many communities, or when they are provided, likely there are limited connections between neighborhoods and to primary destinations. The combination of greater distances between destinations and the lack of pedestrian and bicycle infrastructure contributes to increased driving by making walking and biking less practical options.

Studies show that more people would walk or bicycle if safe and convenient facilities were available. The potential to convert many driving trips to walk or bicycle trips is significant. People can walk one mile in 15 to 20 minutes, and they can bike one mile in 5 to 6 minutes. Trip distances up to 3 miles can be accomplished reasonably by bike, if facilities and connections are present. As the maps on the following page show, most of the residential area within the urban area of the county is within walking and bicycling distance of major destinations.

The high cost of gasoline provides another incentive to consider shifting some trips to walking and bicycling. In suburban communities like Baltimore County, transportation comprises as much as 50 percent of a household's total energy consumption. With the annual average cost of owning and operating a car estimated at more than \$9,000 per year, walking and bicycling are much cheaper transportation options.

Still, many are skeptical that bicycling could become a viable transportation mode in Baltimore County. A study conducted in Portland found that among the people surveyed, 33 percent would not ride a bicycle under any circumstances, while 7 percent felt very confident riding with motor traffic. The remaining 60 percent were interested in using a bicycle for transportation, but were concerned about safety. Providing facilities that allow people to feel safe while cycling on the road is a key to promoting more bicycle use.

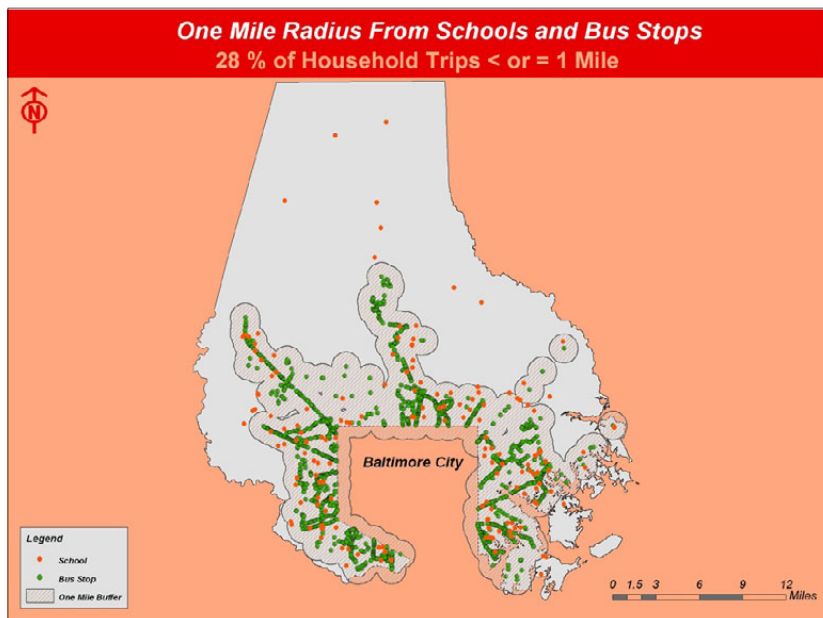


*Providing safe and convenient bicycling facilities would encourage roughly 60% of the population to bike for some of the trips they would otherwise take by car.*

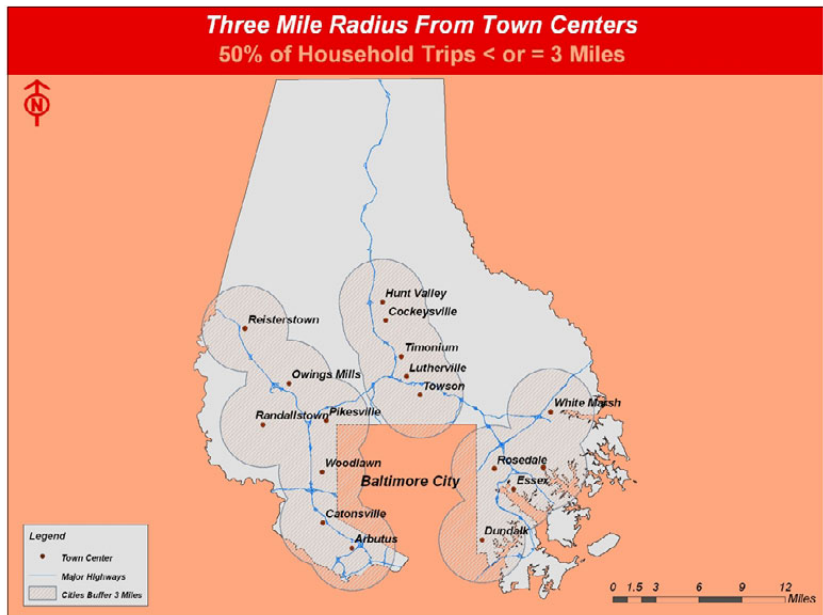
## Planning Process

It will be a challenge, both physically and financially, to retrofit facilities for walking and bicycling in the built-out areas of the county where they don't presently exist. This plan focuses on identifying where these improvements are most needed, and where they are most likely to be used. In order to do that, the planning process was

*A walkable one mile radius around schools and bus stops covers most of the urban area in Baltimore County where 90% of the county's residents live.*



*A 3 mile radius around Baltimore County's town centers, and the corridors that connect them, illustrates the potential area where short trips could be made by bicycle, if the appropriate facilities were present.*



designed to maximize public input. The people who live and work in the plan area are the best ones to identify these potential locations for improvements.

An advisory committee consisting of citizens, elected officials or their representatives, and representatives from County and State government agencies was formed to guide the planning process and oversee outreach efforts. To jumpstart the planning process, the advisory committee prepared a preliminary map of key destinations, and indicated areas of opportunity for potential pedestrian, bicycle, and off-street shared use path improvements across the plan area.

Outreach efforts included an expanded web page on the Department of Planning web site, a printed and online survey covering

experiences walking and bicycling in the plan area (see Appendix A, Sample Survey), presentations to and meetings with community organizations and other stakeholders, and four community workshops, one held in each of the Council Districts in the plan area.

The workshops were held in April 2010. Approximately 190 citizens attended the workshops, which were held in Catonsville (District 1), Cockeysville (District 3), Pikesville (District 2), and Randallstown (District 4). Each person who attended completed the survey on their experiences walking and bicycling in the county, and then discussed their responses within a small group. Members of the advisory committee facilitated and recorded each group's responses.

During the workshops, through the web survey, and in meetings with stakeholder groups, citizens were asked to identify the important places that they would like to reach by walking or bicycling, and that have problems or need improvement. These destinations could be for any kind of trip, recreational, utility (such as running errands), or commuting. They could be places where they currently walk or bike, or places where they would like to walk or bike if the proper facilities were present. Examples of destinations include public and private schools, work, parks, places of worship, libraries, post offices, and shopping areas.

Once all the data was collected, planning staff began the process of analyzing the existing conditions of the suggested areas and the feasibility of providing improvements. From the comments received at the workshops, and the 271 surveys submitted on-line, citizens identified approximately 460 miles of roads for bicycle improvements, 155 miles of shared use path improvements, and 50 miles of pedestrian improvements.

The recommendations of the analysis are contained in this plan as three lists:

- Prioritized Shared Use Path Projects
- Prioritized Pedestrian Projects
- Prioritized Bicycle Projects

The plan also makes recommendations for supportive programs and implementation strategies based on citizen and advisory group input and identifies potential funding sources.

A preliminary draft of the plan was reviewed by the advisory group, other county agencies, and the general public. Comments made during this review period have been incorporated into this document. A public meeting is being scheduled to receive additional citizen comment. Once refinements are made to the plan's recommendations based on citizen comments, the draft plan will be presented to the Baltimore County Planning Board, and subsequently, the County Council, for adoption as an amendment to the county master plan.



*Top: A community member reports her group's findings at the District 4 meeting in Woodlawn.*

*Bottom: Participants identify potential walking and bicycling routes on a map at the District 1 meeting in Catonsville.*

## Engineering: Building Walking and Bicycling Facilities

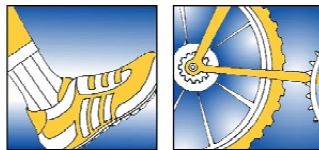


Retrofitting bicycle and pedestrian facilities requires careful planning and the consideration of factors such as major destinations and how far people are willing to walk or bike. Residents were most interested in being able to get to local schools, parks, shopping areas, and transit stations, as well as creating a bicycle network providing access to all areas of the county.



In general, planning for pedestrians focuses on smaller areas than does planning for bicycling, because walking is a more local activity. For pedestrian facilities, planning focuses on areas within neighborhoods. For bicycle facility improvements, the plan considers greater distances, and aims to link major destinations, both near and far, while at the same time creating a regional bikeway network that can be built upon over time.

Shared use paths serve both pedestrian and bicyclists for both short and long distance trips. Because they are separated from traffic, they are more comfortable for younger riders and less experienced riders. Paths are generally more conducive to encouraging walking and bicycling as a recreational activity, but when they provide connections to high-demand destinations, they double as transportation routes. They contribute to livable communities and quality of life by preserving and restoring open space, providing opportunities for physical activity and recreation, and promoting economic development by supporting tourism, business development, and residential attraction.



### Shared Use Paths

A consistent theme that emerged from citizen comments was the desire for more shared use paths. People would like to have paths that are easily accessible to where they live. Many noted that they enjoyed riding and walking on the Torrey C. Brown Trail, but did not visit it often because they had to drive to reach it.

### Types of Shared Use Paths

Examples of shared use paths in Baltimore County include the Grist Mill Trail in Patapsco Valley State Park, and the Catonsville #8 and #9 Trolley Trails, as well as the Torrey C. Brown (Northern Central Railroad) Trail in northern Baltimore County. Many of these trails provide full or partial links to other trails in the region such as the BWI Trail and the Baltimore and Annapolis (B&A) Trail in Anne Arundel County or to the Heritage County Rail Trail in York County, Pennsylvania.

A sidepath is a type of shared use path that runs parallel to the roadway, and is provided in lieu of a sidewalk. Sidepaths are wider than sidewalks to accommodate use by both pedestrians and bicyclists. They are most suitable where the route has a limited number of curb cuts and intersecting streets to reduce the likelihood of conflict with automobiles. Sidepaths have been constructed on Kurtz Avenue and Francke Avenue in Lutherville.

In many jurisdictions, shared use paths, and particularly sidepaths, are being constructed to meet the requirements of the American with Disabilities Act. The wider width, gentle grades and lack of curbs and steps is suitable for mobility devices, as well as for bicycles and strollers.

### Factors that Encourage/Discourage Use

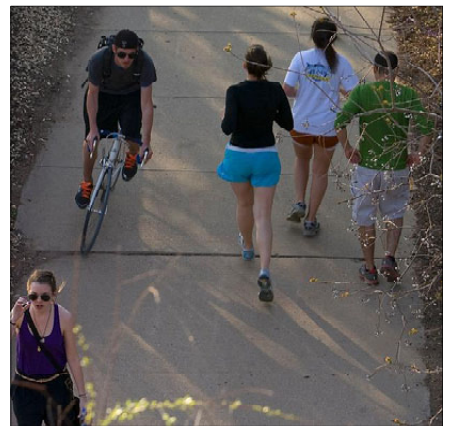
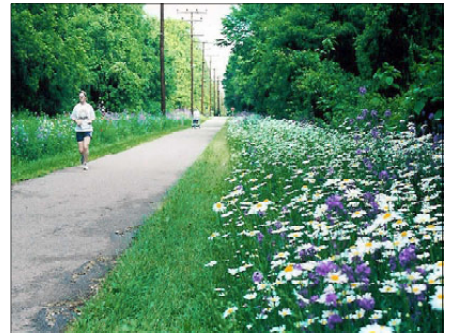
Citizens noted that once shared use paths are constructed, there are not usually many issues that discourage their use. However, a few issues concerning shared use paths were noted, as described below. Most of the difficulty revolving around shared use paths is getting them constructed in the first place. The issues of finding suitable locations, and overcoming opposition from surrounding property owners, are discussed in the next section.

**User conflicts:** Different ages and types of users travel differently, either alone or in groups, and move at different speeds (slow bicyclists; fast bicyclists; runners; pedestrian-hikers; dog walkers; etc.), and this can create potential conflicts. In part, this is an issue of path width, but it is also an issue of rules and behaviors—for example, unleashed dogs can create problems regardless of the intent of the owner.

**Surface preferences:** Hard, all-weather pavement surfaces are generally preferred over non-paved surfaces, because unpaved surfaces require more maintenance. Also, bicyclists and other wheeled users find it harder to travel on unpaved surfaces, and some users are unable to use unpaved paths.

**Shared use paths in parks:** Typically, paths are managed by park agencies, and most parks close at dusk and are not equipped with lighting, unless facilities have regularly scheduled evening hours. Transportation users commuting from the workplace need access when parks may normally be closed, and policies and procedures need to be modified to accommodate them. For example, the Patapsco Valley State Park offers a pass that allows access to the Grist Mill Trail before or after normal park hours.

**Maintenance:** Citizens thought better maintenance to remove litter and debris would encourage use. Paths intended for transportation use should have year-round maintenance including a program for snow removal.



*A frequently occurring challenge in the use of shared use paths is the conflict produced by mixing users traveling at different speeds.*

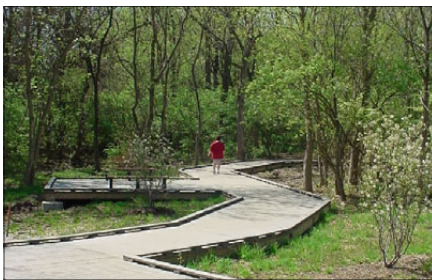
**Fear of crime:** Some individuals expressed the perception that crime can become a problem on trails. While citizens did not say they had ever encountered criminal activity on a trail, they did say that they sometimes felt isolated and vulnerable. Suggestions included providing emergency communication devices and more police presence.

**Extend existing trails and create a connected trail network:** A network of interconnected shared use paths can serve both transportation and recreation purposes. A network would also attract greater use by providing the means to get to and from many destinations, including neighborhoods, commercial districts, school, or work, without having to mix with motor vehicles. In particular, citizens requested extension to the Red Run Trail and the Short Line Trail. Citizens were also interested in having paths that connected recreation and community centers, as well as having paths located within parks.

**Provide additional supportive infrastructure:** Several types of facilities that would improve the pathway environment for walking and bicycling were suggested, including more parking, lighting, restrooms and signage.

**Provide additional programs:** A number of programs and events were suggested to encourage use, such as holding 5K events, neighborhood walks, etc.

## Issues and Opportunities in Constructing Shared Use Paths



*Constructing shared use paths often involves bridges over streams or busy roadways (top), or boardwalks through wetlands (bottom), which can make the project very costly.*

While stream valleys, utility right-of-ways and abandoned rail corridors can be used for shared use paths, there can be issues that make the actual construction of a path difficult. Many times, these corridors do not provide the most convenient routes between populated areas and in-demand destinations. Once a location is identified, land must be acquired and assembled, often from multiple property owners. Environmental constraints may be difficult to resolve. The amount of time and money required to create a path can be considerable.

Another major issue that must be addressed in the construction of shared use paths is community opposition. Trails frequently encounter opposition from adjoining property owners when first proposed. The opposition to trails can be intense over perceptions that trail access is associated with increased crime, lack of privacy, and an associated decline in property values.

However, experience demonstrates that well-managed, well-used trails are safe and embraced by the community, and proximity to shared use paths becomes an attraction to homebuyers, investors,



and business proprietors. Ideally, planning for shared use paths should satisfy multiple goals in transportation, recreation, and economic development, while addressing and satisfying the concerns of neighboring property owners and community associations. Management and security plans should be developed as part of the planning process, to ensure that community concerns are addressed in an ongoing fashion after the path is operational. As part of the process, “Crime Prevention Through Environmental Design” techniques should be considered, including lighting if the path is used at night, and providing visibility from adjoining streets and public areas.



*Creating the B & A Trail in Anne Arundel County overcame initial, and sometimes intense, opposition to become a cherished community asset.*

## Recommendations for Shared Use Paths

The plan recommendations for potential shared use paths are based on the recommendations of citizens at the workshops and through the surveys, as well as consideration of the recreational greenways that are designated in the Baltimore County Master Plan 2020. These recommendations are depicted the maps and key on the following pages. There is one plan area map showing all of the recommendations, and another highlighting those that are recommended as high priority projects for implementation in the short term.

The key provides a listing of all of the projects, with additional information including the type of facility (either paved or unpaved), recommended priority and comments.

For the priority recommendation, the factors that were considered included the anticipated cost, ease of implementation, and the potential level of use. Priorities are translated into short, mid and long term phases. The length of each phase, and a project’s assigned priority, will depend on availability of public funding.

County staff also examined the potential routes suggested by citizens for general environmental and physical constraints. Some suggested routes were eliminated from further consideration because they appeared infeasible. For others, the determination of feasibility will require a more in-depth analysis than the scope of this plan can provide. These routes are identified in the Comments column as ones recommended for feasibility studies.



The plan’s recommendations for shared use paths vary from short paths that link neighborhoods to nearby destinations or to the on-street bicycle network to multi-mile region-serving pathways that link neighborhoods to each other. Among the notable, longer paths are:

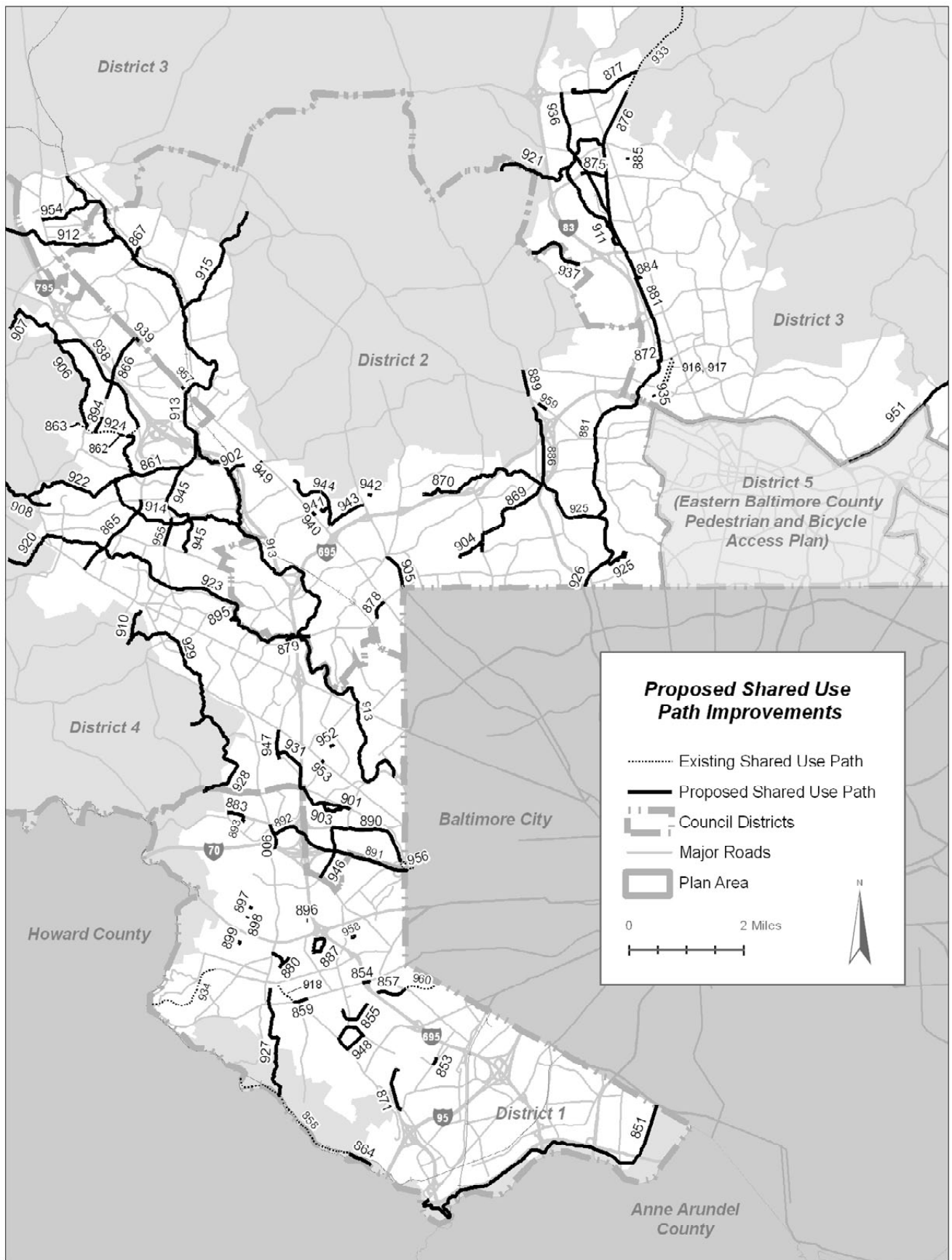
- The Gwynns Falls Greenway Path in Baltimore County would serve a large portion of western Baltimore County while also connecting to and extending the Gwynns Falls Trail in Baltimore City, which in turn would connect to the BWI Trail in Anne Arundel County.



*MetroBikeLink, a 4-mile asphalt multi-use trail, provides the backbone for the St. Clair County trail system in Illinois. The trail is fully integrated with the MetroLink light rail system.*

- Extension of the Jones Falls Trail north and west following an abandoned rail line would connect Robert E. Lee Park and Meadowood Regional Park with the Gwynns Falls Trail.
- A path from Robert E. Lee Park northward following Roland Run and the Central Light Rail Line through Towson and Cockeysville to the Torrey C. Brown (NCR) Trail would provide a key transportation route for bicyclists in the highly populated York Road corridor.
- A shared use path in the vicinity of Cromwell Bridge Road would link the highly populated area of Towson to the recreational and scenic amenities offered by Cromwell Valley Park, the reservoir, and the adjoining Gunpowder State Park.

An issue was raised in the citizen workshops concerning the proposal of a shared use path in Cromwell Valley Park. Many citizens were concerned that the path would impact the sensitive environmental area along Minebank Run, and encourage mountain biking in other sensitive natural areas, including the adjoining Loch Raven Reservoir. Some suggested that the former Ma and Pa Railroad bed, now a BGE right-of-way, be used as a route instead. A properly designed path, paired with a solid management and implementation plan, could eliminate or control potential problems. Further study that involves the separate park and reservoir facilities and neighboring communities should be undertaken to develop a joint plan that serves all of the various constituencies.





## Map Key PROPOSED SHARED USE PATH IMPROVEMENT LIST

No.	Name	From	To	Type <sup>1</sup>	Priority <sup>2</sup>	Comment
<b>EXISTING SHARED USE PATHS</b>						
858	Patapsco Valley State Park Path	Glen Artney Rd Parking	Ilchester/River Road	6b	0	Existing shared use path; State DNR maintained
916	Francke Avenue Sidepath	Morris Avenue	Ridgely Rd	6b	0	Existing shared use path
917	Kurtz Avenue Sidepath	Morris Avenue	Ridgely Rd	6b	0	Existing shared use path
918	No 8 Trolley Trail	Edmondson Junction	Frederick Rd	6b	0	Existing shared use path
924	Red Run Stream Valley Park Trail	Red Run Blvd	Spring Willow Rd Area	6b	0	Existing shared use path
933	Torrey C Brown Trail (Northern Central RR Trail)	Pennsylvania	Ashland Rd	6a	0	Existing shared use path; State DNR maintained
934	No 9 Trolley Trail	Edmondson Ave	Oella Ave	6a	0	Through Banneker Park
956	Gwynns Falls Trail	Ingleside Ave	Trailhead at I-70 parking lot	6b	0	City owned and maintained
960	Short Line Rail Trail	Maiden Choice Lane	Terminus near Charlestown Retirement Community	6a	0	Existing shared use path
<b>PROPOSED SHARED USE PATHS</b>						
851	Patapsco River Path	Baltimore City Line	South Road	6b	1	Potential connection to city path network and BWI path
853	Connector Path	Westland Boulevard	Poplar Avenue	6b	2	UMBC connector
854	Short Line Rail Trail	Wade Ave	Blakeney Rd Alley	6b	1	Shared use path connection over Frederick Rd
855	Short Line Rail Trail	Mellor Avenue	Maple Street	6a	1	Shared use path
857	Short Line Rail Trail	Shady Nook Ave	Maiden Choice Lane	6a	1	Potential connection to city path network
859	Rail Trail Connection	No 8 Trolley Trail	Stanley Road	6b	2	Potential future sidepath
861	Red Run Stream Valley Park Trail	Existing Red Run Stream Valley Park Trail	Gwynns Falls	6b	1	Owings Mills Open Space Plan; paved path for bikes, ADA accessibility
862	Red Run Stream Valley Park Trail	Existing Red Run Stream Valley Park Trail	Gold Hill Road	6b	1	Neighborhood connection
863	Red Run Stream Valley Park Trail	Existing Red Run Stream Valley Park Trail	Soldiers Delight Environment Area	6a	1	Potential connection to Soldiers Delight
864	Patapsco Valley State Park Path	Gun Rd	Glen Artney Rd Parking	6b	3	Potential shared use path
865	Owings Mills Blvd Sidepath	Lyons Mill Road	Liberty Rd	6b	1	In engineering
866	Dolfield Blvd Ext Sidepath	Pleasant Hill Rd	Tollgate Rd	6b	3	Future Dolfield Blvd Extension
867	Connector Path	Cherry Hill Rd End	Gwynns Falls Greenway	6a	3	Neighborhood connection
869	Moores Branch Greenway	Slaughterhouse Branch	Greenspring Avenue	6a	2	Feasibility study for path improvement

*Continued, Next Page*

**1: Type Key**

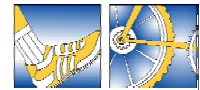
6a = Unpaved shared use path  
6b = Paved shared use path

**2: Priority Key**

0 = Existing  
1 = High priority, short-term implementation  
2 = Moderate priority, mid-term implementation  
3 = Low priority, long-term implementation

## Map Key, Continued

### PROPOSED SHARED USE PATH IMPROVEMENT LIST



No.	Name	From	To	Type <sup>1</sup>	Priority <sup>2</sup>	Comment
870	Slaughterhouse Branch Greenway	Falls Rd	Philips Drive	6a	2	Feasibility study for path improvement
871	Metropolitan Blvd Sidepath	Hilltop Circle	Sulphur Spring Rd	6b	2	Sidepath
872	Lutherville Connector Path	Lutherville Light Rail Stop	Greenspring Drive	6b	1	MTA feasibility study completed; place bike gutter on steps at stop
875	Warren Road Sidepath	Warren Road Light Rail Stop	NCR Trail Extension terminus at Warren Rd	6b	1	Shared use path
876	NCR Trail Extension	Warren Road	Ashland Road	6a	1	Use rail r/w
877	NCR Trail Extension	NCR Trail	Shawan Road/ Hunt Valley Light Rail Stop	6b	2	Feasibility study for path implementation
878	Lutherville Connector Path	Lutherville Light Rail Stop	Greenspring Drive	6b	1	MTA feasibility study completed
878	Milford Mill Road Sidepath 1	Deerfield Road	Reisterstown Rd	6b	2	Sidepath
879	Milford Mill Road Sidepath 2	Washington Ave	Cloudyfold Dr	6b	2	Sidepath
880	Catonsville Park Path	Dunbar Ave	Oakdale Avenue	6b	1	First phase in engineering
881	Light Rail/Roland Run Greenway	Warren Road	Robert E Lee Park	6a	3	Feasibility study for path implementation
883	Security R/W Path	HCFA Drwy	Fairbrook Rd	6b	1	Shared use path
884	Connector Path	Thelma Street	Timonium Light Rail Stop	6b	1	Shared use path
885	Connector Path	York Avenue	Matthews Avenue	6b	3	Shared use path
886	NCR Greenspring Branch Path	Robert E Lee Park	Meadowood Park	6b	1	Feasibility study for path implementation
887	Banneker CC Path	Old Frederick Road	Banneker Community Center	6b	1	Shared use path
889	Connector Path	Seminary Avenue	Meadowood Park	6b	3	Some r/w needed
890	Security Blvd Sidepath	Forest Park Avenue	Woodlawn Drive	6b	1	Sidepath connection to existing Gwynns Falls Trail
891	Red Line Path	City Line	Security Square Mall	6b	1	Consider path as Red Line is planned
892	Security Square Path	Red Line Path	Rolling Rd	6b	1	Shared use path
893	Chadwick ES Path	Winder Rd	Security Blvd	6b	1	Path to LR Station, CMS
894	Pleasant Hill Road Path	Red Brook Corporate Center	Red Run Stream Valley Trail	6b	1	Convert road to path when Dolfield Rd Ext complete
895	Neighborhood Connector to Scotts Level Branch Greenway	Church Lane	Scotts Level Branch Greenway	6a	3	Path connection; Alternative to Rolling Rd
896	Walden Mill Way Extension	Winters Lane	Alexander Ave	6b	1	Connector path; Alternative to Rolling Rd
897	Nuwood Dr Extension	Pleasant Valley Rd	Nuwood Dr	6b	2	Connector path; Alternative to Rolling Rd
898	Nuwood Dr Extension	Nuwood Dr	Nuwood Dr	6b	2	Connector path; Alternative to Rolling Rd
899	Nuwood Dr Extension	Private Drive	West Geipe Rd	6b	2	Connector path; Alternative to Rolling Rd
900	Rolling Rd Sidepath	Johnnycake Rd	Red Line Path	6b	2	Provide connection thru redevelopment; Alternative to Dead Run Greenway

*Continued, Next Page*



## Map Key, Continued

### PROPOSED SHARED USE PATH IMPROVEMENT LIST

No.	Name	From	To	Type <sup>1</sup>	Priority <sup>2</sup>	Comment
901	Dogwood Road Sidepath	Gwynn Oak Ave	Woodlawn HS	6b	1	Shared use path
902	Connector Path under I-795	Tobins Ln	Gwynns Falls Greenway	6b	2	Shared use path
903	Woodlawn HS Path	Dogwood Rd Sidepath	Dead Run Greenway	6b	3	Internal system
904	Greenspring Quarry Path	Moore's Branch Greenway	Lightfoot Dr	6b	2	Shared use path
905	Park Heights Ave Sidepath	Old Court Rd	City Line	6b	2	Sidepath
906	Northern Red Run Greenway	Red Run Stream Valley Park Trail	Cooks Branch	6a	3	Feasibility study for path improvement
907	Cooks Branch Greenway	Carroll County	Northern Red Run Greenway	6a	3	Feasibility study for path improvement
908	Locust Run Greenway	Liberty Reservoir	Northwest Area Park	6a	3	Feasibility study for path improvement
910	Brice Run Greenway	Randallstown ES	Patapsco Valley State Park	6a	3	Feasibility study for path improvement
911	Cockeysville Quarry Greenway	Beaver Dam Run	Texas Station	6a	3	Feasibility study for path improvement
912	Norris Run Greenway	Gwynns Falls Greenway	Liberty Reservoir	6a	3	Feasibility study for path improvement
913	Gwynns Falls Greenway	Baltimore City Gwynns Falls Trail	Glyndon	6b	3	R/W acquisition underway
914	Horsehead Branch Greenway	Gwynns Falls Greenway	Owings Mills Shared Use Path System	6a	3	R/W acquisition underway
915	Gwynnbrook Greenway	Gwynns Falls Greenway	Gwynnbrook Wildlife Management Area northward	6a	3	Feasibility study for path improvement
919	Light Rail/Roland Run Greenway	Warren Road	Robert E Lee Park	6a	3	Feasibility study for path improvement
920	Falls Run Greenway	Marriottsville Rd	Patapsco Valley State Park	6a	3	Feasibility study for path improvement
921	Beaverdam Run Greenway	Cockeysville	Oregon Ridge Park	6a	3	Feasibility study for path improvement
922	Southwest Owings Mills Greenway	Locust Run Greenway at Northwest Area Park	Red Run Stream Valley Park	6a	3	Feasibility study for path improvement
923	Scotts Level Branch Greenway	Marriottsville Rd	Milford Mill Rd	6a	3	Feasibility study for path improvement
925	Robert E Lee Park Path	NCR West Rail Trail terminus	Falls Rd	6b	1	Shared use path
926	Jones Falls Trail connection	Robert E Lee Park Path	City line	6b	1	Shared use path
927	Tributary Greenway	Edgewood Ave	Patapsco Valley State Park	6a	1	Feasibility study for path improvement
928	Bens Run Greenway Branch	Bens Run Greenway	Dogwood Rd	6a	3	Feasibility study for path improvement
929	Bens Run Greenway	Brice Run Greenway	Hollifield Rd	6a	3	Feasibility study for path improvement

*Continued, Next Page*

**1: Type Key**

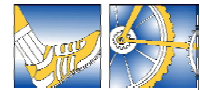
6a = Unpaved shared use path  
6b = Paved shared use path

**2: Priority Key**

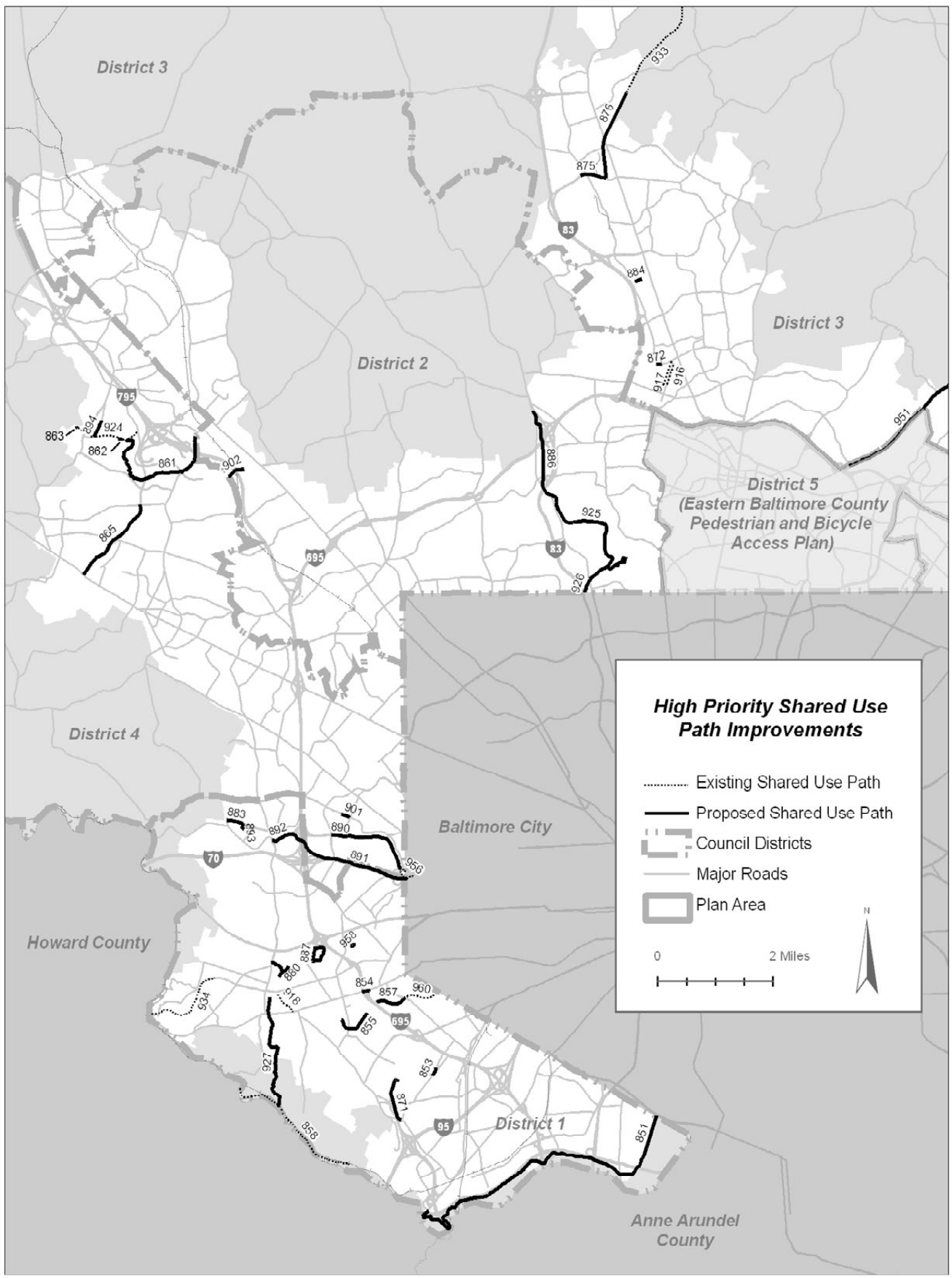
0 = Existing  
1 = High priority, short-term implementation  
2 = Moderate priority, mid-term implementation  
3 = Low priority, long-term implementation

**Map Key, Continued**

**PROPOSED SHARED USE PATH IMPROVEMENT LIST**



No.	Name	From	To	Type <sup>1</sup>	Priority <sup>2</sup>	Comment
931	Dead Run Greenway	Woodlawn HS	Lord Baltimore Dr	6a	3	Feasibility study for path improvement
935	Charles Street Connector	Charles Street End	Lincoln Ave	6a	3	Shared use path
936	McCormick Rd Sidepath	Shawan Rd	Industry Ln	6b	2	Tight in some spots
937	W Padonia Rd Sidepath	Greenpoint Rd	Jenifer Rd	6b	3	Sidepath
938	Red Run Blvd Sidepath	Church Rd	Red Run Stream Valley Trail	6b	3	Sidepath
939	Reisterstown Rd Connector Sidepath 2	Dolfield Rd	Gwynnbrook Ave	6b	2	Sidepath connector
940	Reisterstown Rd Connector Sidepath 3	Grey Rock Rd	Keller Rd	6b	2	Sidepath connector
941	Connector Path	Keller Rd	Greene Tree Rd	6b	2	Shared use path
942	Connector Path	Michelle Way	Woodvalley Dr	6b	2	Shared use path
943	Hooks Ln Sidepath	Greene Tree Rd	Park Heights Ave	6b	2	Sidepath
944	Greene Tree Rd Sidepath	Hooks Ln	Craddock Ln	6b	2	Sidepath
945	Painters Mill Rd Sidepath	Lyons Mill Rd	Owings Mills Blvd	6b	2	Sidepath
946	Woodlawn Drive Sidepath	Johnnycake Road	Security Boulevard	6b	2	Sidepath
947	Lord Baltimore Drive Sidepath	Windsor Mill Road	Ambassador Rd	6b	2	Sidepath
948	Catonsville HS Perimeter			6b	2	Shared use path
949	Reisterstown Rd Connector Sidepath 4	Tobins Ln	Greenspring Valley Rd	6b	3	Sidepath connector
951	Cromwell Valley Path	Cowpens Ave	Glen Arm Rd	6b	1	Feasibility study to determine alignment
952	Windsor Blvd Extension	Essex Rd	Joicy Ct	6b	2	Path connection
953	Windsor Mill Rd Sidepath	Lawnwood Cir	Featherbed Ln	6b	2	Sidepath connector
954	Glyndon Greenway	Gwynns Falls Greenway	Franklin MS	6a	3	Feasibility study for path improvement
955	Painters Mill Rd Sidepath 2	Winands Rd	McDonogh Rd	6b	2	Sidepath
957	Reisterstown Rd Connector Sidepath 1	Tollgate Rd	Groff Rd	6b	2	Will need retaining wall, widening
958	Existing Path Repaving	Longview Dr	Westowne ES	6b	1	Consider conversion from sidewalk to shared use path
959	W Joppa Rd Sidepath	Tally Ho Rd	Greenspring Station	6b	2	Also a pedestrian project







## Walking

### Types of Improvements

A variety of options are available to improve the pedestrian and roadside environment, ranging from the basic construction of sidewalks to including features that make walking more enjoyable.

**Sidewalk construction:** New sidewalk construction in the places where sidewalks are nonexistent is seemingly an obvious response. If land acquisition for right-of-way is required, the process becomes more complicated. Creative approaches may be needed such as narrowing the roadway to accommodate a sidewalk, or acquiring a walkway easement across private property. The width of a sidewalk may vary according to the amount of anticipated used. A sidewalk width of 5 feet is the minimum county standard, but wider sidewalks may be appropriate in commercial districts, or in the vicinity of college campuses, schools, and transit stops.

**Curb ramps:** In accordance with federal regulations, new sidewalks are constructed with curb ramps. However, there are many locations where pre-existing sidewalks still need to be upgraded. These are being addressed on an as-needed basis, or as sidewalks are rebuilt.

**Variety in paving materials:** While concrete is likely to be the most cost effective, the addition of decorative paving such as brick or colored concrete can add extra visual interest in special locations. In more naturalistic environments, asphalt material may be more appropriate. Rubber sidewalks can also be used in places where tree roots and uplift would otherwise damage sidewalk pavement. Where suitable soil conditions exist, permeable pavement, concrete pavers and grid pavers are options that allow storm runoff to percolate into the ground beneath, providing filtering of pollutants and storage and absorption of runoff.

**Crosswalks:** Pedestrian crossings may be marked with reflective material or paint, specialized treatments such as brick or stamped asphalt, or raised slightly higher compared to the rest of the roadway. Crosswalks should be present on all legs at signalized intersections, unless hazardous conditions make one or two legs unsuitable.

**Pedestrian traffic signals and markings:** Enhanced signals, signage, and road markings (e.g., advance stop and yield lines) offer the opportunity to strengthen crosswalk safety. Pedestrian push-button devices activate the “Walk/Don’t Walk” cycle and extend the amount of time the walking signal remains on, giving the pedestrian more time to cross the road. Count-down signals that display in seconds the amount of time available to cross the road are now the county standard, although it will take the next decade to convert all pedestrian signals in the county to the new format.





**Lighting:** Adequate lighting should be provided for all pedestrian routes along streets, and in other locations where night-time use occurs.

**Traffic Calming:** This set of techniques works to slow down passing motor vehicle traffic to better balance desires of motorists to move quickly with quality of life and safety concerns of pedestrians and neighborhood residents. The Department of Public Works has created a Neighborhood Traffic Management Program to manage and implement such projects on local streets. The decision on whether to employ active or passive traffic calming measures is dependent on traffic volume and speed, the amount of cut through traffic, and site conditions. Options include creating one way traffic patterns, turn restrictions, traffic circles or roundabouts, speed humps, and pedestrian refuge islands, among others.



**Streetscape improvements and pedestrian amenities:** Street trees, plantings, lighting, benches, trash receptacles, bus shelters, wayfinding signage, and interpretational signage should be incorporated into all pedestrian improvement projects as appropriate, to support and encourage pedestrian activity. Street trees provide shade during the summer and have a calming effect on traffic speed, making the overall environment more pleasant for walking. Benches and trash receptacles should be placed strategically, where people are likely to pause to rest or wait for transit.

## Factors that Encourage/Discourage Walking

When asked to identify the factors that encourage and discourage walking at the workshops and through the survey, the most common response was the presence/absence of sidewalks. People said that they would be encouraged to walk more if an interconnected system of sidewalks linking destinations was available, as well as more education and walk to school support for children and youth.

The pedestrian environment along the arterials where many of the identified destinations are located was described as the most difficult to navigate. These roads include Reisterstown Road, Liberty Road, Baltimore National Pike (US 40), and York Road, and are characterized by long distances between safe pedestrian crossings, wide road width, and high speeds, making walking difficult whether or not there are sidewalks. Special attention is needed to improve walkability in such corridors.

The specific issues for pedestrian facilities noted by citizens included:

**No Sidewalk:** This was the most common problem reported during the planning process. In many locations, a sidewalk had not been constructed, had been constructed on only one side of the street, or was constructed only partially, with significant gaps along the route.

**Poor condition:** The condition of the paving in some areas can make walking hazardous. In some cases, improper drainage may be an issue.

**Lack of crosswalks or pedestrian signals:** Many busy intersections lack crosswalks and pedestrian signals may not provide enough time to cross the street.

**Obstacles:** Objects such as telephone poles, fire hydrants or parked cars in driveways may block walkways and make walking difficult, particularly with strollers or wheelchairs.

**Lighting:** Lighting of walkways can be insufficient.

**Maintenance:** Several maintenance issues discourage walking, including overgrown vegetation obstructing walking routes or sight lines, litter and debris, and lack of snow removal.



## Issues and Opportunities in Constructing Sidewalks

**Lack of space/difficult topography:** In many locations, the right-of-way ends at the road paving edge requiring land acquisition, or variable topography makes it impossible to construct a continuous sidewalk without significant and expensive re-grading or retaining walls. Roadway culverts at watercourses may need to be extended, or bridges built. Utilities, drainage ditches, trees, fences, mailboxes and the like are often placed in the line of what would be the normal placement of a sidewalk. Redesign, relocation and/or removal of these items can be complicated and expensive, and can sometimes generate opposition from adjoining property owners.

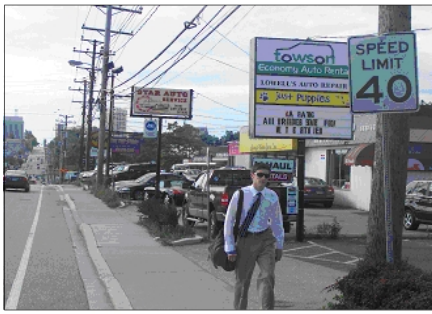
**Need for easements:** Constructing a new sidewalk may entail procuring additional rights-of-way or access easements. Currently the Office of Law does not favor access easements because the County Code governing such easements does not provide adequate requirements for maintenance.

**Green infrastructure:** With the new state watershed protection requirements and greater citizen interest in protecting the environment, building new sidewalks offers opportunities to incorporate green techniques such as the use of permeable pavement.

**Improving access for the disabled:** Replacement of older sidewalks provides the opportunity to upgrade their design to current ADA (Americans with Disabilities Act) standards, including smoother surfaces, larger widths, relocation of obstacles, and installation of curb ramps.



*The pedestrian environment can be challenging due to lacking or incomplete sidewalks, and, in winter, lack of snow removal.*



*Changing zoning laws to encourage walkable design could help improve the quality of the county's commercial corridors over time, as properties redevelop.*

**Improving access to schools:** Providing safe pedestrian facilities in proximity to schools will allow more students to walk to school and help reduce the traffic congestion that occurs around schools during opening and closing times. Planning for new sidewalks around schools should be done in association with the local PTA and school administration to coordinate with busing and crossing guard requirements.

**Improving commercial corridors:** Despite streetscaping and traffic management techniques, the overall quality of the pedestrian experience along commercial corridors is diminished due to the form of the buildings and parking. The county's zoning regulations encourage orienting buildings to the automobile, with parking in the front. By way of comparison, buildings in older town centers such as Catonsville or Pikesville were constructed with buildings oriented toward sidewalks and to pedestrians, and with parking to the rear. This creates a sense of place where people feel comfortable walking, yielding an experience that is far more pleasing.

## Recommendations for Pedestrian Improvements

The recommendations for pedestrian improvements are shown on the following maps, with one map for each council district. The locations for improvements were identified by citizens, as well as through a visual survey of aerial photographs to determine neighborhoods that lacked sidewalks, but appeared to have area to accommodate them within the public right-of-way.

Not appearing on the maps, but to be incorporated into this plan, are the recommendations of the Walkable Community Workshops held in three areas within the plan's boundary— Hunt Valley, Pikesville and the US 40 area. These recommendations are contained in individual reports created in 2005.

As with the shared use path recommendations, the key that accompanies the maps also indicates the type of improvement (whether sidewalk is needed on one or both sides of the street) and priority.

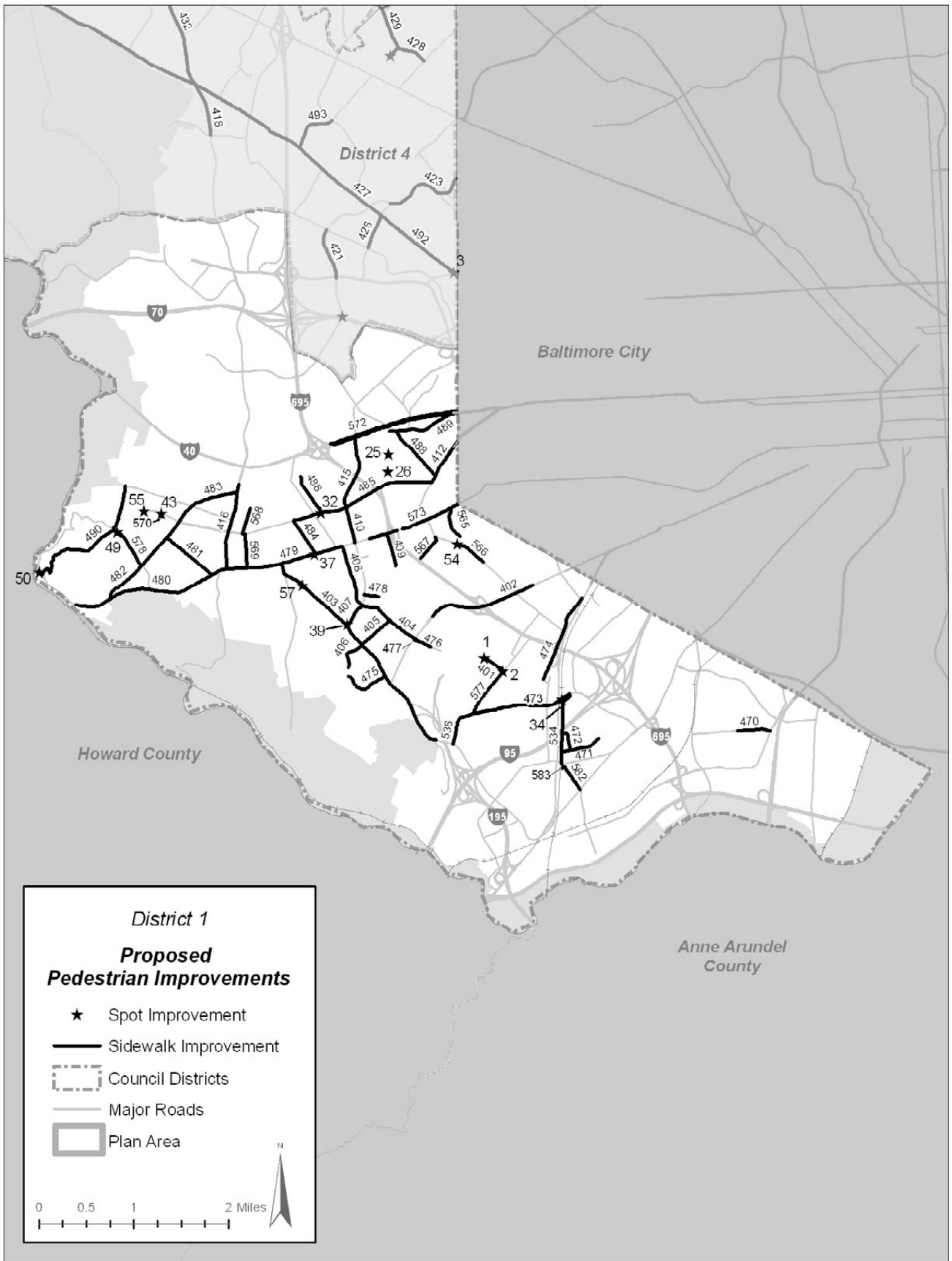
The recommended pedestrian projects fall into two general categories:

- New sidewalk construction where sidewalks are lacking, in disrepair, or otherwise in need of improvement
- Individual, "spot" improvements such as crosswalks, pedestrian signals, curb ramps and bus shelters.

Priority recommendations for pedestrian facilities were made based on two factors:

1) Pedestrian potential—how much pedestrian activity is expected in particular locations, based on a variety of factors including residential and/or employment density, and proximity to schools, parks, libraries, colleges, town center commercial districts, and transit stations; and

2) Level of pedestrian deficiency—how difficult it is for people to walk along or cross particular street because of the lack of facilities. Because financial resources are limited, recommendations prioritized locations where pedestrian activity is predicted to be significantly greater.



## DISTRICT 1 – PROPOSED PEDESTRIAN IMPROVEMENTS

Map Key



No.	Street	From	To	Type <sup>1</sup>	Priority <sup>2</sup>
401	Poplar Ave	Hilltop Circle	Shelbourne	1	1
402	Wilkens Ave	Alan Drive	Walker Ave	2	2
403	S Rolling Rd	Frederick Rd	Metropolitan Blvd	2	1
404	Hilltop Rd	Wilkens Avenue	Bloomsbury Avenue	2	1
405	Valley Rd	S Rolling Road	Hilltop Road	2	1
406	Campus Dr	S Rolling Road	CCBC Campus	1	1
407	Bloomsbury Ave	Mellor Ave	S Rolling Road	1	1
408	Mellor Ave	Frederick Road	Bloomsbury	2	2
409	Wade	Locust	Frederick Road	1	2
410	Ingleside Ave	Edmondson Ave	Frederick Rd	2	1
412	Edmondson Ave	Baltimore City Line	Harlem Ln	2	1
415	Ingleside Ave	Baltimore National Pike	Edmondson Ave	2	1
416	N Rolling Rd	Baltimore National Pike	Frederick Rd	2	1
470	3rd Ave	Hollins Ferry Road	Saratoga Avenue	1	1
471	Maple Ave	Arbutus Avenue	Road End Maple Ave	2	1
472	Arbutus Ave	Potamac Avenue	Maple Avenue	2	1
473	Sulphur Spring Rd	Selford Road	Dolores Avenue	2	2
474	Leeds Ave	Beechfield Avenue	Linden Avenue	1	2
475	Collegiate Dr	S Rolling Rd	CCBC Campus	1	1
476	Hilltop Road	Hilltop Circle	Wilkens Ave	1	1
477	Hilltop Rd	East Side Hilltop Road	West Side Hilltop Road	1	1
478	Asylum Ln	Bloomsbury Ave	Hickory	2	3
479	Frederick Rd	Mellor Ave	Rolling Rd	2	1
480	Frederick Rd	Rolling Road	River Road	2	3
481	Devere Ln	Old Frederick Road	Frederick Road	2	2
482	Old Frederick Rd	Stonewall Road	Frederick Road	2	3
483	Old Frederick Rd	Rolling Road	Frederick Road	2	1
484	N Beaumont Ave	Edmondson Ave	Frederick Rd	2	1
485	Edmondson Ave	Harlem Ln	Beaumont Ave	2	1
486	Wesley Ave	Edmondson Avenue	Roberts Avenue	2	2
488	Academy Rd	Old Frederick Rd	Edmondson Ave	1	2
489	Old Frederick Rd	Baltimore National Pike	Charing Cross Rd	1	2
490	Westchester Ave	Rockwell Avenue	Frederick Road	2	3
534	Potomac /Waelchliave	Ridge Road	Sulphur Spring Road	2	2
536	Sulphur Spring Rd	Dolores Ave	Selford Rd	2	1
565	S Belle Grove Rd	Frederick Rd	Garden Ridge Rd	2	3
566	Maiden Choice Ln	Garden Ridge Rd	Charlestown Ret. Community	2	2
567	Paradise Ave	Maiden Choice Ln	Shady Nook Ave	2	3
568	Oakdale Ave	Edmondson Ave	End	1	2
569	Dutton Ave	Edmondson Ave	Frederick Rd	1	2
570	Belleview Rd Ext.	Belleview Rd End	Catonsville MS	1	1
572	Baltimore Natl. Pike	City Line	I-695	2	1
573	Frederick Rd	City Line	Bishops Ln	2	1
578	Oella Ave	Westchester Ave	Old Frederick Rd	2	3
582	Selma Ave	Winans Ave	Washington Blvd	2	1
583	Winans Ave	Selma Ave	Washington Blvd	2	1
577	Shelbourne Rd	Sulphur Spring Rd	Poplar Ave	2	1

**1: Type Key**

1 = Sidewalk required on one side of street  
 2 = Sidewalk required on both sides of street

**2: Priority Key**

1 = High priority, short-term implementation  
 2 = Moderate priority, mid-term implementation  
 3 = Low priority, long-term implementation



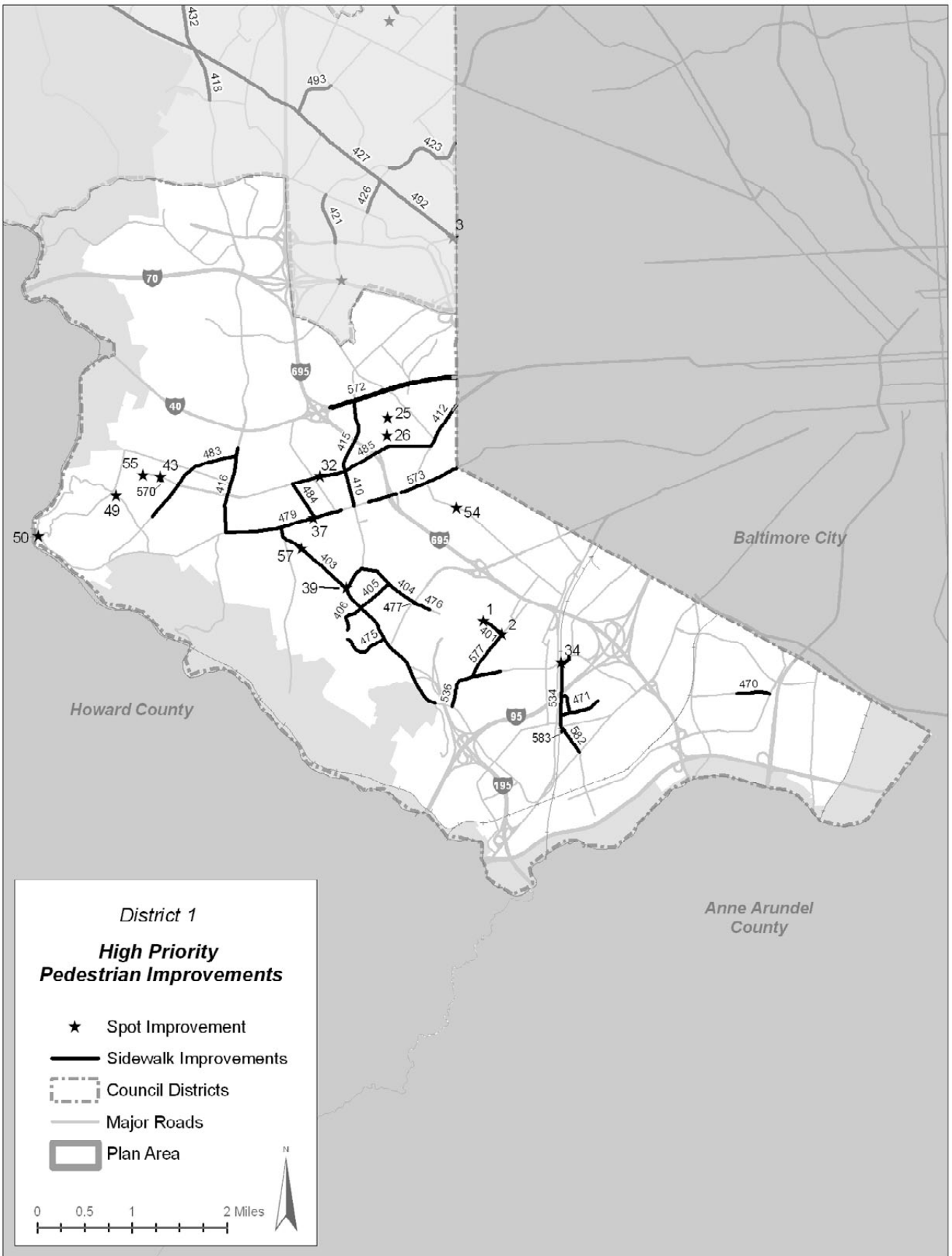
## Map Key, Continued DISTRICT 1 -- PROPOSED PEDESTRIAN IMPROVEMENTS

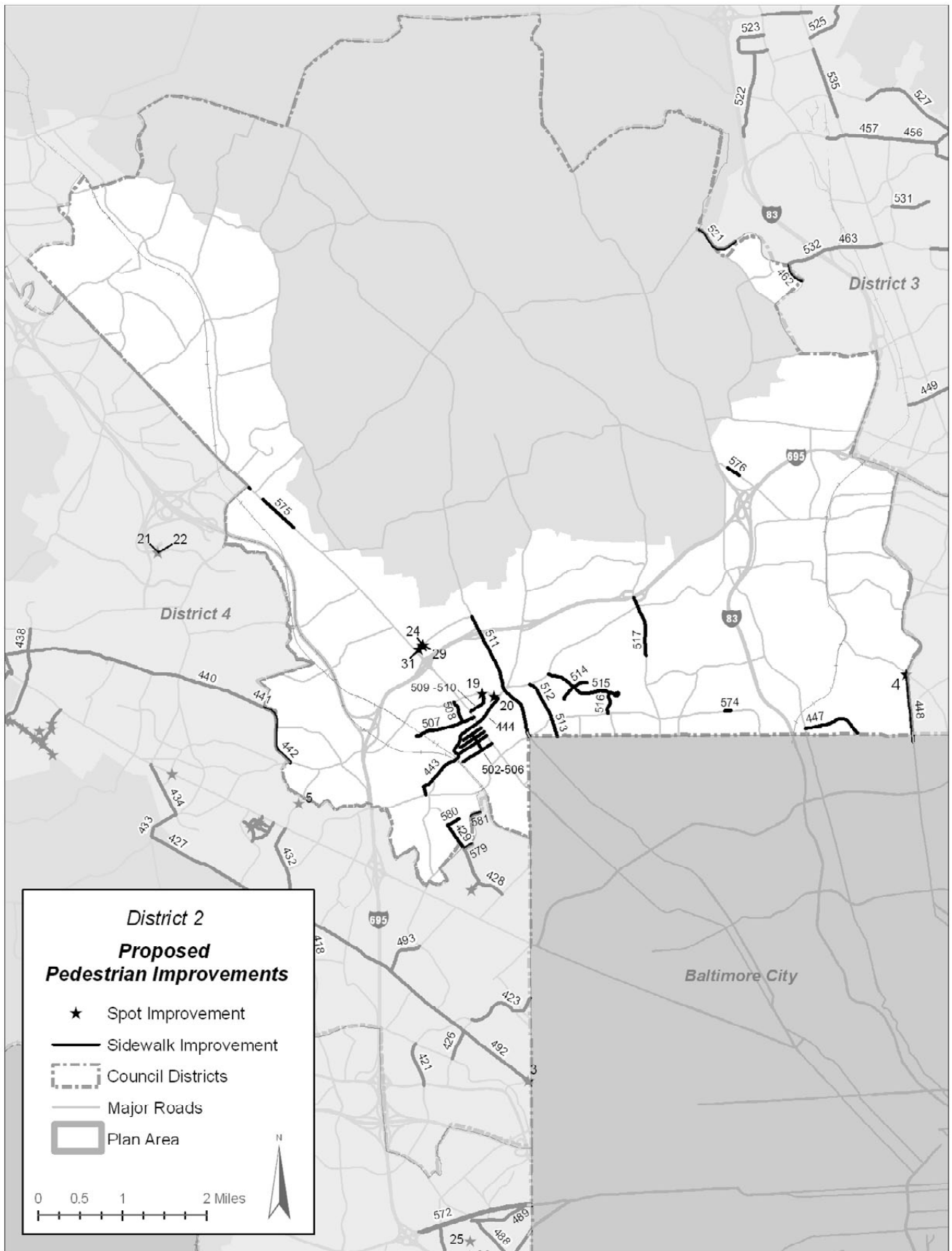
### SPOT IMPROVEMENTS

---

No.	Location	Improvement
1	At Hilltop Circle and Poplar Ave	Bus shelter
2	At Shelbourne Rd and Poplar Ave	Bus shelter
25	At Harlem Ln and Maple Forest Rd	Ramp
26	At Harlem Ln and Harlem Ln	Ramp
32	At Edmondson Ave and Wesley Ave	Sidewalk
34	Sulphur Spring Road near train bridge	Improve steps
37	Across Frederick Road at Catonsville Library	Improved crosswalks
39	Catonsville HS at Rolling Rd	Improved crosswalks
43	Edmondson Ave near Catonsville MS	Replace storm drain
49	No. 9 at Oella Ave	Path crossing, rumble strips
50	Oella Ave and Frederick Rd	Crosswalks, curb ramps
54	Short Line and Maiden Choice Ln	Crosswalk, signage
55	Chalfonte and Edmondson	Add stop signs on Chalfonte to facilitate path access
57	S Rolling Rd and Park	Crosswalk







## Map Key DISTRICT 2 – PROPOSED PEDESTRIAN IMPROVEMENTS



No.	Street Name	From	To	Type <sup>1</sup>	Priority <sup>2</sup>
429	Campfield Rd	Bedford Rd	Wildwood Ave	2	1
441	Winands Rd	Cedars Mill Rd	Horatio Rd	1	2
442	Winands Rd	Horatio Rd	Old Court Rd	1	2
443	Sudbrook Ln	Reisterstown Rd	Milford Mill Rd	2	2
444	Sudbrook Ln	Reisterstown Rd	Park Heights Ave	1	2
447	W Lake Ave	Baltimore City Line	Falls Road	2	1
448	Charles St	Baltimore City Line	Bellona Ave	2	1
462	Greenpoint Rd	Chatterton Lough Rd	Padonia Rd	2	2
502	Brightside Ave	Reisterstown Rd	Dead End Brightside Ave	2	3
503	Hawthorne Ave	Reisterstown Rd	Dead End Hawthorne	2	3
504	Sherwood Ave	Reisterstown Rd	Dead End Sherwood PI	2	3
505	Waldron Ave	Reisterstown Rd	Purvis PI	2	3
506	Ivanhoe PI	Brightside Ave	Waldron Ave	2	3
507	Church Ln	Reisterstown	Greenwood Rd	2	2
508	Bedford Ave	Church Ln	Old Court	2	2
509	Walker Ave	Reisterstown Rd	28 Walker Ave	2	2
510	Walker Ave	Old Court	28 Walker Ave	2	2
511	Park Heights Ave	Slade Ave	Hooks Ln	2	1
512	Seven Mile Ln	Southvale	Old Court Rd	2	1
513	Seven Mile Ln	Baltimore City Line	Southvale Rd	2	1
514	Timberfield Ln	East End Timberfield Ln	West End Timberfield Ln	2	2
515	Lightfoot Dr	Old Court Rd	Dead End Lightfoot	2	2
516	Darwood Dr	Smith Avenue	Lightfoot Drive	1	1
517	Greenspring Ave	Quarry Lake Drive	I 695 Ramp	1	1
521	W Padonia Rd	Roundwood Rd	Jenifer Rd	2	3
575	Reisterstown Rd	9801 Reisterstown Rd	10123 Reisterstown Rd	1	1
574	Smith Ave	Rockland Hills Dr	400 feet west	1	3
576	W Joppa Rd	Tally Ho Rd	2328 W Joppa Rd	1	2
579	Alter St	Campfield Rd	North Alter St	2	1
581	Bedford Rd	Sudbrook MS	Milford Mill Metro Station	1	2

### SPOT IMPROVEMENTS

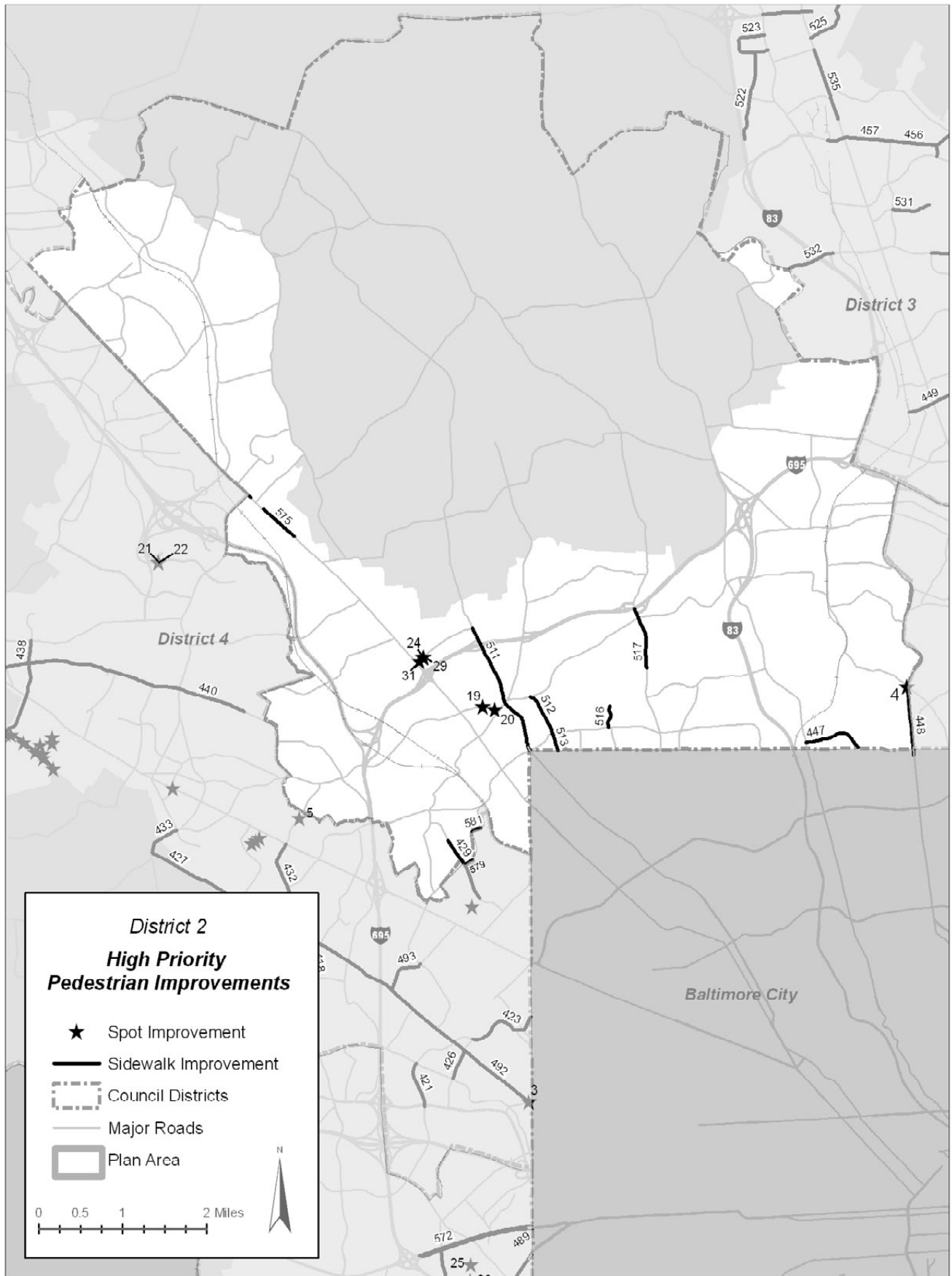
No.	Location	Improvement
4	Charles St and Bellona Ave	Crosswalk
19	Old Court Rd and Walker Ave	Ramp
20	Old Court Rd and Old Court Rd	Ramp
24	Hooks Ln and Greene Tree Rd	Crosswalk
29	Hooks Ln and Address 1	Sidewalk
31	Hooks Ln and Address 2	Sidewalk

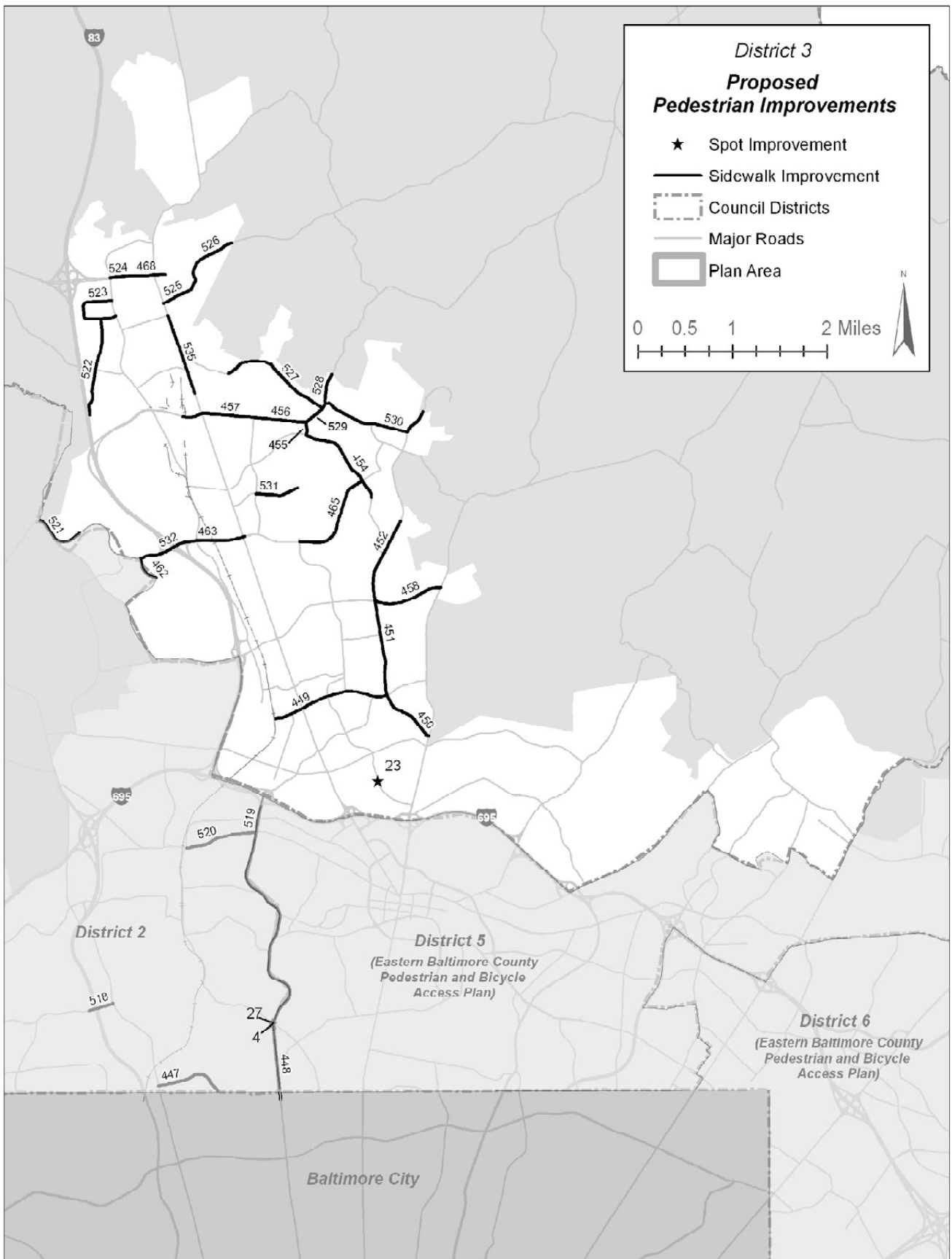
#### 1: Type Key

1 = Sidewalk required on one side of street  
2 = Sidewalk required on both sides of street

#### 2: Priority Key

1 = High priority, short-term implementation  
2 = Moderate priority, mid-term implementation  
3 = Low priority, long-term implementation







## Map Key DISTRICT 3 – PROPOSED PEDESTRIAN IMPROVEMENTS

No.	Street Name	From	To	Type <sup>1</sup>	Priority <sup>2</sup>
449	E Ridgely Rd	Dulaney Valley	York/Aylesbury	2	1
450	Pot Spring Rd	Dulaney Valley	Ridgely	2	2
451	Pot Spring Rd	Ridgely Road	Chantry	2	2
452	Pot Spring Rd	Chantry	Stella Maris	2	2
454	Cranbrook Rd	Mistwood	Ridgeland	1	2
455	Ridgeland Rd	Girdwood	Warren	2	1
456	Warren Rd	Greenside	Ridgeland	2	1
457	Warren Rd	York Road	Greenside	2	1
458	W Timonium Rd	Dulaney Valley Rd	Potspring Rd	2	1
462	Greenpoint Rd	Chatterton Lough Rd	Padonia Rd	2	2
463	E Padonia Rd	York Rd	I-83	1	1
465	W Padonia Rd	Cranbrook Rd	Eastridge Rd	1	1
468	Shawan Rd	York Road	Light Rail Road Crossing	2	1
521	W Padonia Rd	Roundwood Rd	Jenifer Rd	2	3
522	Gilroy Rd	Schilling Circle	End Of Gilroy Road	2	1
523	Schilling Cir	Schilling Road	McCormick Road	2	1
524	Shawan Rd	Light Rail Road Crossing	McCormick Road	1	1
525	Ashland Rd	York Road	Paper Mill Road	2	1
526	Paper Mill Rd	Ashland Road	Loch Raven Reservoir	2	1
527	Sherwood Rd	Tyrie Ave	Bosley Rd	2	3
528	Warren Rd	Bosley Rd	End Of Poplar Hill Rd	2	2
529	Warren Rd	Ridgeland	Bosley Road	2	1
530	Bosley Rd/Potspring Rd	Warren Rd	Colonnade Rd	2	1
531	Galloway Ave	Greenside Dr	Dead End Galloway	2	1
532	E Padonia Rd	I-83	Greenpoint Rd	2	1
535	York Rd	Matthews Ave	Wight Ave	2	1

### SPOT IMPROVEMENTS

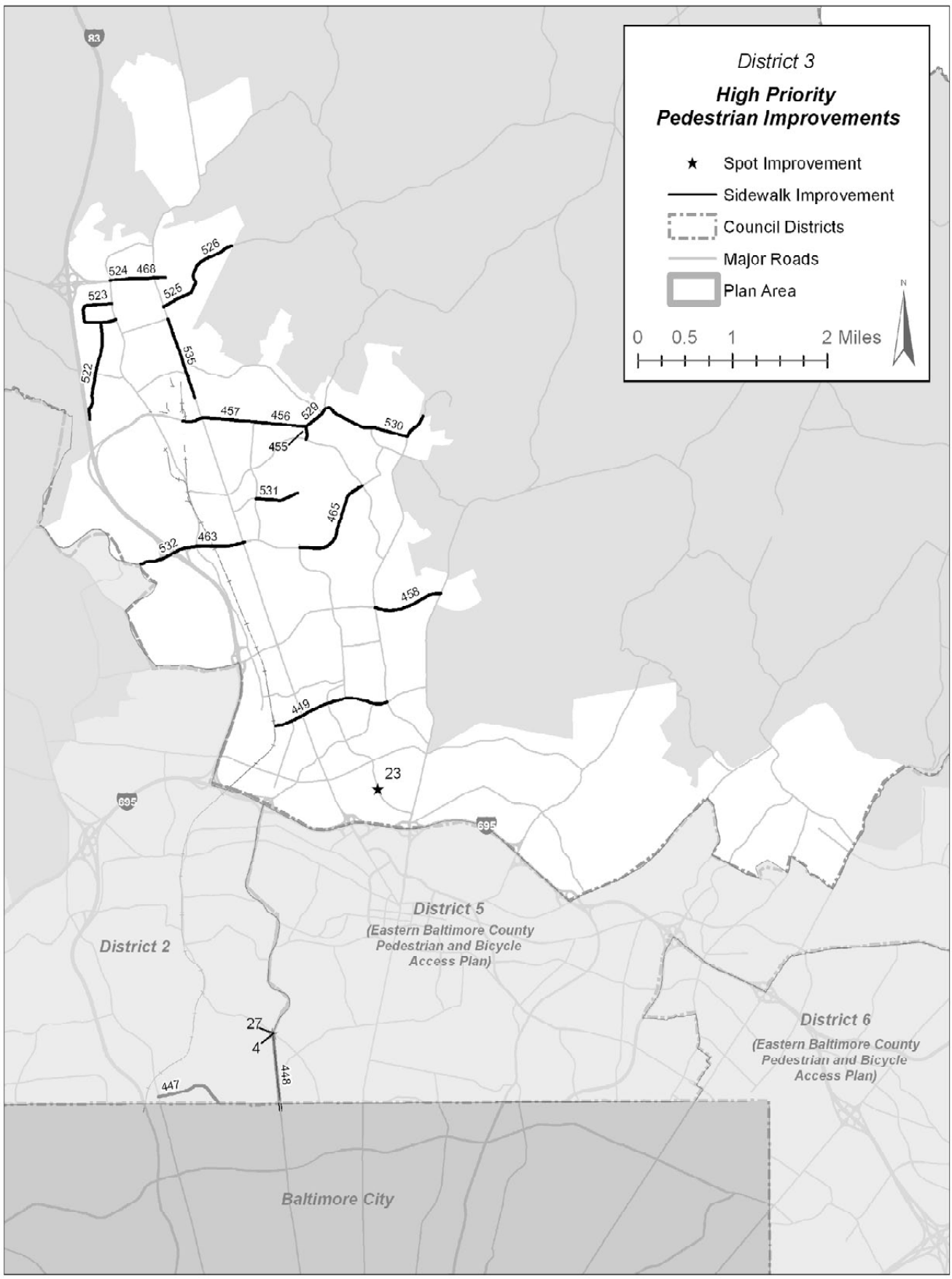
No.	Location	Improvement
23	Charmuth Rd and Felton Rd	Crosswalk

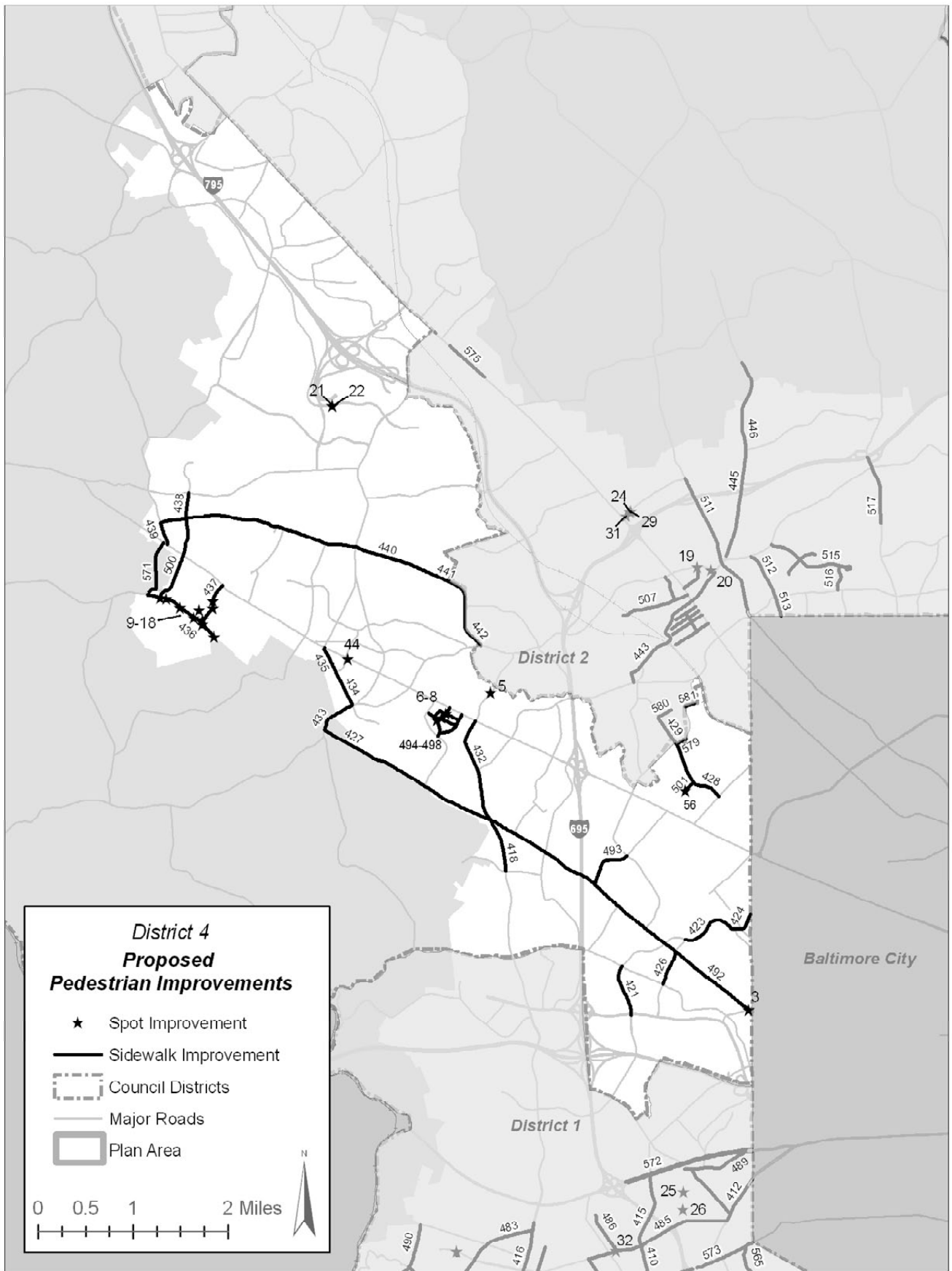
#### 1: Type Key

1 = Sidewalk required on one side of street  
2 = Sidewalk required on both sides of street

#### 2: Priority Key

1 = High priority, short-term implementation  
2 = Moderate priority, mid-term implementation  
3 = Low priority, long-term implementation







## DISTRICT 4 – PROPOSED PEDESTRIAN IMPROVEMENTS

Map Key



No.	Street Name	From	To	Type <sup>1</sup>	Priority <sup>2</sup>
418	Rolling Rd	Windsor Mill Rd	Windsor Blvd	2	1
421	Woodlawn Dr	Security Blvd	Dogwood Rd	2	1
423	Gwynn Oak Ave	Woodlawn Dr	Cedar Dr	1	1
424	Gwynn Oak Ave	Cedar Dr	Beethoven Ave	1	1
426	Gwynn Oak Ave	Dogwood Rd	Windsor Mill Rd	1	1
427	Windsor Mill Rd	Gwynn Oak Ave	Old Court Rd	1	1
428	Wildwood Ave	Campfield Rd	Patterson Ave	2	2
429	Campfield Rd	Bedford Rd	Wildwood Ave	2	1
432	Rolling Rd	Windsor Mill Road	Liberty Road	2	1
433	Old Court Rd	Windsor Mill Road	Greens Lane	2	1
434	Greens Ln	Old Court Road	Between Greenslanding/Marley	2	2
435	Greens Ln	Between Greenslanding/Marley	Liberty Road	2	2
436	Marriottsville Rd	Hernwood Es	Carriage Hills Park	2	1
437	Live Oak Rd	Liberty Rd	Marriottsville Rd	1	2
438	Marriottsville Rd	Liberty Rd	Lyons Mill Rd	1	1
439	Deer Park Rd	Liberty Rd	Winands Rd	2	3
440	Winands Rd	Deer Park Rd	Cedars Mill Rd	2	1
441	Winands Rd	Cedars Mill Rd	Horatio Rd	1	2
442	Winands Rd	Horatio Rd	Old Court Rd	1	2
492	Windsor Mill Rd	Kernan Dr	Gwynn Oak Ave	1	1
493	St Lukes Ln	Windsor Mill Road	Essex Road	2	1
494	Meadowdale Dr	Liberty Rd	Merryview Ct	2	3
495	Merryview Dr	Courtleigh Dr	Dead End Merryview Ct	2	3
496	Charmel Dr	Meadowdale Dr	Jean Dr	2	3
497	Merrymount Dr	Meadowdale Dr	Merryview Ct	2	3
498	Jean Dr	Liberty Rd	Merryview Ct	2	3
500	Marriottsville Rd	Lanamer Rd	Liberty Rd	2	1
501	Campfield Rd	Wildwood Avenue	Carol Rd	1	2
571	Sheraton Rd/Marriottsville Rd	Liberty Rd	Hernwood ES	2	2
579	Alter St	Campfield Rd	North Alter St	2	1
580	Campfield Pl	Campfield Rd	Sudbrook MS	2	2
581	Bedford Rd	Sudbrook MS	Milford Mill Metro Station	1	2

### SPOT IMPROVEMENTS

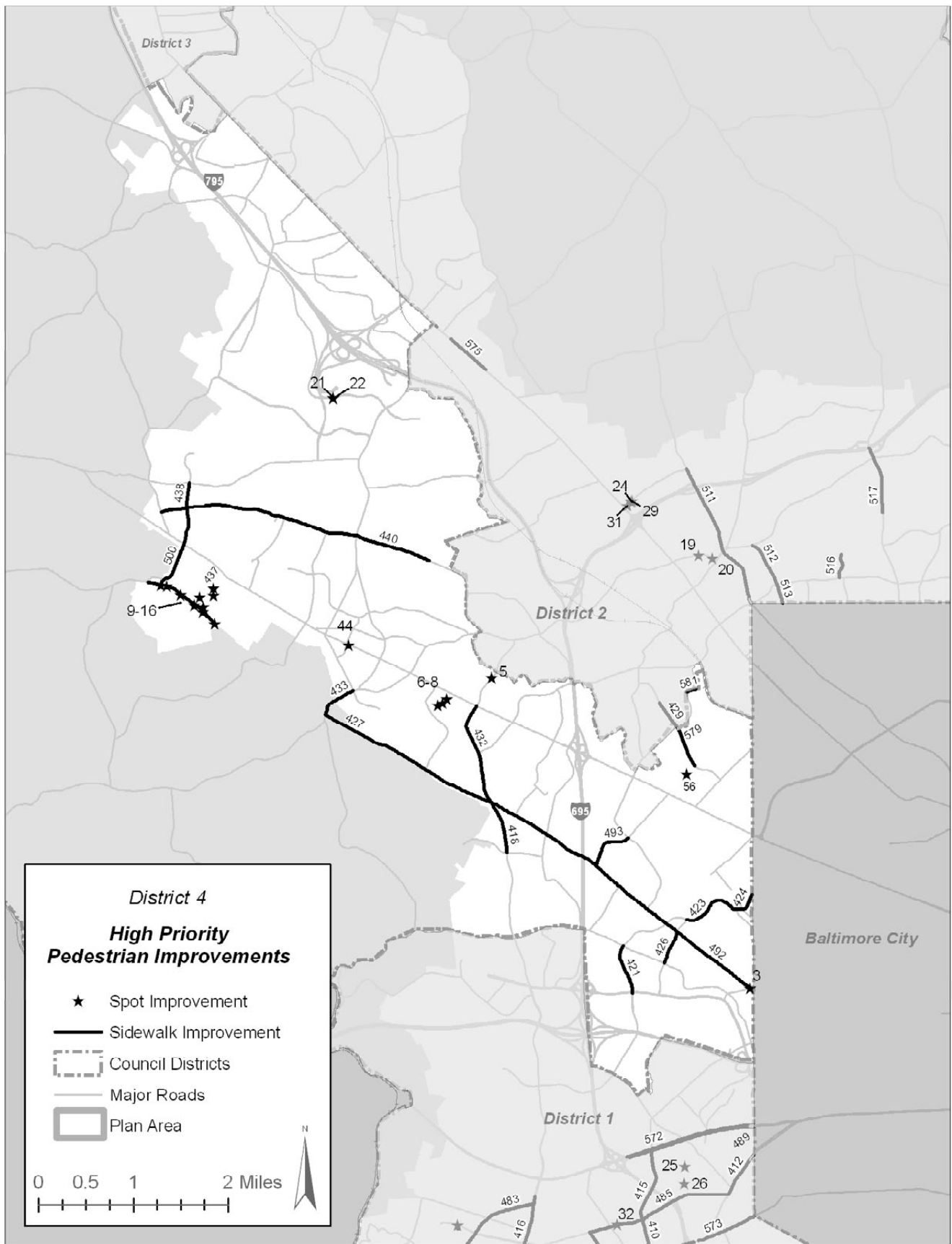
No.	Location	Improvement	
3	Windsor Mill Rd and Kernan Dr	Bus shelter	
5	Rolling Rd and Church Ln	Crosswalk	
6	Jean Dr and Merrymount Dr	Crosswalk	
7	Jean Dr and Charmel Dr	Crosswalk	
8	Jean Dr and Merryview Dr	Crosswalk	
9	Marriottsville Rd and Kings Point Rd	Ramp	
10	Marriottsville Rd and Kittridge Ct	Ramp	
11	Marriottsville Rd and Hobart Ct	Ramp	
12	Marriottsville Rd and Templar Rd	Ramp	
13	Marriottsville Rd and Corn Stream Rd	Ramp	
14	Marriottsville Rd and Orchard Shade Rd	Ramp	
15	Live Oak Rd and Waterwheel Sq	Ramp	
16	Live Oak Rd and Templar Rd	Ramp	
17	Live Oak Rd and Axhead Ct	Ramp	
18	Templar Rd and Oxyoke Ct	Ramp	
21	Red Run Blvd and Restaurant Park Rd	Crosswalk	
22	Red Run Blvd and Restaurant Park Rd	Bus shelter	
44	Along Liberty Road from Courtleigh to Offut Rd	Extend streetscaping and lighting	
56	Campfield Rd	Correct drainage problem	

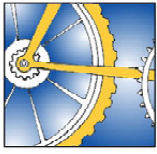
**1: Type Key**

1 = Sidewalk required on one side of street  
2 = Sidewalk required on both sides of street

**2: Priority Key**

1 = High priority, short-term implementation  
2 = Moderate priority, mid-term implementation  
3 = Low priority, long-term implementation





## On-street Bikeways

While the current law gives bicyclists the ability to operate on most of the roads in Baltimore County, the design of the roads, high traffic levels, and prevalent attitudes of motorists tend to discourage bicycling. To encourage bicycle use, a higher level of bicycle accommodation is needed.

A variety of roadway improvements can be made to accommodate bicycles. Which improvement is most appropriate will depend on a number of factors, including the available width and other physical characteristics of the roadway, traffic volume and speed, the continuity of bikeway facility type that can be achieved (frequent transitions between facility types within short distances should be avoided), and whether the governing jurisdiction (county or state) has approved the use of a particular type of improvement.

### Types of On-street Bicycle Facilities

Bikeway is a generic term that covers all types of facilities for cycling. The two basic on-street types are bicycle lanes and bicycle routes. Also included are facilities that support bicycling, such as short term and long term parking facilities, facilities for commuters such as showers, lockers, and changing facilities, bicycle repair facilities, and rental/sharing options.

**Bicycle Lane:** A bike lane is a striped lane with markings on the roadway, generally 5 feet in width, designating an area for preferential or exclusive use by bicyclists. These lanes, accompanied by signage, also serve to advise motorists of the possibility of the presence of bicyclists. Bike lanes accommodate one-way travel only, and are installed on both sides of a two-way road.

New, innovative, and experimental facilities also included in the bicycle lane category are cycle tracks and buffered bike lanes. Cycle tracks and buffered bicycle lanes are bicycle exclusive facilities located within the right of way, physically separated from motorized vehicle and pedestrian traffic.

**Bicycle Routes:** Bike routes are marked routes on roadways for bicycle trips where the travel lane is shared with motorists. Posted signage is used to indicate routes and destinations. On local neighborhood streets that have been identified as a component of a bicycle network, signage is all that would be necessary to accommodate a bicyclist due to the street's minimal vehicular traffic and slower speeds. A widened curb lane is a variation of a bike route that is sometimes used on collectors and arterials. Extra width is provided on the outside lane to accommodate bicyclists, but the area is not striped or marked. Widened curb lanes are typically used where the existing roadway is not wide enough to accommodate a



*From top: Bicycle lane, buffered bicycle lane, two-way cycle track, bicycle route.*



*Bicycle boulevard*



*Top: Bike rack in Catonsville*

*Bottom: A bike repair station that provides items like tubes, patch kits, water bottles, energy bars, plus air and a repair arm.*

standard bike lane. Shoulders can also be considered as a bike route when they are not marked as a designated bike lane.

New types of bike route facilities include shared lane markings, sometimes referred to as “sharrows,” which supplement posted signage noting the mixing of bicyclists and vehicular traffic, and bicycle boulevards/bicycle preferred streets. A bicycle boulevard is defined as a shared roadway which has been optimized and prioritized for bicycle traffic, and is often intended as an alternative route, devised to divert bicyclists from more heavily traveled streets. In many respects, a bicycle boulevard is a form of traffic calming, because many of the design treatments used in traffic calming are the same as those used for bicycle boulevards. Such streets discourage “cut through” traffic by motorized vehicles through the incorporation of a variety of design protocols to significantly reduce traffic speeds.

**Bicycle Parking:** Clients, patrons and visitors require short-term parking (less than two hours). Easy-to-use outside bicycle racks are the most common way to accommodate short-term parking. Employees and building tenants, including apartment or condo dwellers, require long-term parking areas. All bicycle parking should be conveniently located, secure, and provide an adequate level of weather protection.

**Bicycle Stations/Showers, Lockers, and Changing Facilities:** Bike stations are multi-service centers for cyclists, focused on serving bicycle commuters. In addition to providing secure parking, full-service bike stations provide members with private lockers, showers and changing areas and on-site repair services. Some centers provide café services and wireless internet services, as well as rental bikes for non-members. Commercial buildings can also provide showers, lockers, and changing areas, although it is still rare for municipalities to include requirements for this in their zoning codes. Comparable services can be provided on a shared basis in “transportation management districts,” or through agreements with local fitness centers.

## **Factors that Encourage/Discourage Bicycling**

**Lack of defined facilities:** At the workshops, many people expressed discomfort at riding on the county’s roadways because of the lack of marked bicycle lanes, requiring them to ride in traffic. Lane widths of many roads are narrow, and shoulders may be nonexistent, discontinuous, or in poor condition for bicycling.

Many find it difficult to get through intersections where they must mix with traffic, particularly when making left turns. National statistics show that even though only 11% of all bicycle accidents involve a collision with a car, 45% of these take place in intersections. Conflicts can develop between through and turning

traffic, because of the vastly different speeds of bicycles compared to motor vehicles. Treatments such as bike boxes, pocket lanes, through lane markings through intersections, etc., can be employed to address these concerns.

**Too much traffic:** Citizens cited “too much traffic” as the primary reason for not bicycling on county roadways. Even the most experienced on-road bicycle riders noted that they avoid particular routes because of heavy traffic.

**Storm drain grates:** The older grates with bars running parallel to the road, create slots that can easily catch a bicycle tire and throw the rider off the bike. While current regulations require roads and developments to use bicycle-appropriate storm grates, areas constructed before the change in regulations frequently have storm grates in place which are noncompliant.

**Traffic calming measures:** Devices such as speed humps may hinder bicycle movement; bump outs, sidewalk extensions, and other treatments may force bicyclists out into the motor travel lane. Drivers trying to avoid traffic calming devices may drive closer to bicyclists when passing or try to overtake the cyclist to the narrower section of the road.

**Going uphill:** Riding uphill is an issue of concern to bicyclists because motorists riding behind a slower-moving cyclist can become impatient. Climbing lanes are bicycle lanes on one side of a roadway that are placed to assist bicyclists with steep hills. Similar to uphill truck lanes, the lane allows vehicles to safely pass slower bicyclists.

**Freeway interchanges, bridges, underpasses, and culvert crossings** are common roadway barriers for bicycling. In the workshops, citizens frequently identified getting across these as a significant hindrance to walking and bicycling. Because of the number of freeways in the plan area—I-695, I-83, I-95, I-70, I-195, I-795 and I-895—they can pose significant barriers for anyone not traveling in a motor vehicle.

**Facilities maintenance:** Litter, debris, pavement condition and cracks, standing water, overgrown vegetation, and snow are issues of concern to bicyclists.

**Lack of bicycle parking at destinations:** Many places in the county, including high-demand destinations such as shopping centers, grocery stores, office buildings, town centers, and government buildings, do not have bicycle racks. Commuters or people potentially interested in commuting by bicycle also frequently mentioned the need for showers and changing facilities at or convenient to their final destination.



*Lack of parking for bikes is a frequent complaint of cyclists. Providing bike racks at major destinations would help encourage bicycling.*



*Bike lanes can be striped on roads that have extra width.*

## Issues and Opportunities in Constructing On-street Bikeways

While retrofitting bicycle improvements into the existing road network is a challenging task, opportunities do exist. Some state and county roads have been built with very wide cross sections. With trends toward traffic calming and narrower lane widths, the potential exists for restriping roadways to reduce the travel lane for cars from the average of 12' wide to a minimum of 10' wide, and to use the extra area for bicycle lanes or a widened curb lane. Reducing or eliminating non-essential center turn lanes, medians, or on-street parking lanes could also provide opportunities for bicycle lanes. These types of improvements can be done with minimal expense.

The most expensive solution for providing bikeways is widening the road right-of-way. In addition to the cost of land acquisition, it is likely that utility poles, storm drains, fire hydrants, driveway aprons, and other infrastructure will need to be relocated or reconstructed. However, if a road widening is planned due to increased vehicular traffic volumes, appropriate bicycle (and pedestrian facilities) should be included.

State and local policies and design standards for roads are increasingly including bicycle accommodations. Maryland State Highway Administration policies include the provision of bike lanes, widened curb lanes, wider shoulders, and bicycle-related signage where appropriate. Baltimore County recently adopted a new public works design manual that includes standards for bicycle facilities.

## Recommended On-street Bicycle Facilities

### Bicycle Level of Comfort

Planning staff analyzed the recommendations made by citizens using a methodology known as Bicycle Level of Comfort (BLOC).

BLOC is a nationally accepted means of analyzing bicycling conditions on roads. It is based on research that statistically evaluated how safe bicyclists felt after riding on roads with varying conditions including road width, posted speed limits, level of motor vehicle traffic, level of truck traffic, etc.

Level A reflects the best conditions for bicyclists. Roads with an A rating could be generally characterized as having excellent to good paving conditions, light traffic, and a wide shoulder or bicycle lane. Level F roadways have the worst conditions. A road with an F rating typically has heavy auto and truck traffic, high speeds, and no shoulder.

BLOC was calculated for each road segment both in its existing condition and then with the modifications to the numerical values for vehicle lane width, bike lane width, paving condition, and traffic speed to see what conditions would be needed to reach a BLOC of C or better. In general, one or more of the following adjustments were used to improve the BLOC score:

- Adding a striped bicycle lane or a shared parking/bicycle lane on a wide neighborhood collector road
- Narrowing the vehicle travel lanes by restriping and providing a widened curb lane or bicycle lane
- Reducing the posted traffic speeds by 5 mph (only used with narrowing of lanes or the addition of bicycle lanes where a traffic calming effect could be expected)
- Improving extremely poor paving conditions

Depending on the existing condition of the road, and the options available that could reasonably be implemented, a potential recommendation for improvements was made as a result of the analysis. In many instances, especially for arterial roads, the only option to providing safe and comfortable on-road bicycle facilities is to widen the road to accommodate bike lanes or cycle tracks. For a variety of these roads, widening will be difficult due to topographic constraints, location of adjoining structures, and extreme cost. In these cases, alternative routes using less heavily trafficked roads were sought, or if possible, a sidepath was recommended.

One of the factors that makes creating dedicated bicycle lanes more difficult is the existence of parking. It is very difficult for communities and commercial districts to give up on-street parking in favor of bike lanes, especially when the actual bike lane usage may be low during the initial phases of creating a bicycle route network. For the most part, recommending bike lanes through the elimination of parking was not recommended, unless the actual level of parking usage was extremely low.

## **Map Recommendations**

The maps and key that follow depict the plan recommendations for on-street bicycle facilities by council district.

The types of recommendations for bicycle improvements are shown in the map key according to the categories described below. Each successive category from 1 through 5 is an increasingly expensive type of improvement. It is very likely that type 4a, 4b, or 5 improvements will be prohibitively expensive if considered for bicycle improvements alone. It is expected that, in most cases, if these improvements are to occur, they would be made in conjunction with a project that also improves conditions for motor vehicles.

**1a. Bicycle Route:** This is the most minimal improvement, and consists of signage designating the roadway as a bicycle route as well as signage indicating route destinations and distance. The signage can be complemented by road markings such as sharrows. This type of improvement is recommended where the existing BLOC score is at least a C, and no other improvements are needed.



*A sharrow pavement marking denoting shared use of the roadway.*

**1b. Bike Boulevard:** A variation of a bicycle route, a bike boulevard is provided on a low speed, low volume local street that has been optimized for bicycle travel through treatments such as traffic calming and traffic reduction, pavement markings and intersection crossing treatments. Bike boulevards are intended to serve as bicyclist-preferred routes and as alternatives to major roads. This type is not currently recommended for any routes, but should be considered as an option at the time of implementation of type 1a or 1c projects.

**1c. Bicycle Route, Advanced:** A second variation of the bicycle route, but in this case, the BLOC is less than C. This improvement type is necessary in situations where the existing road and right-of-way conditions and lack of adequate alternatives make using busy roads unavoidable. Many of these routes are either already in use by advanced bicycle riders and should be signed to alert motorists, or are a critical part of an inter-connected network. If the associated roadway is widened, bike lanes or a sidepath should be included to bring the BLOC to a more comfortable level.

**2. Widened Curb Lane:** Narrowing the inner traffic lanes (to a minimum of 10 feet wide) to create a widened curb lane. There were no instances where this level of improvement resulted in a BLOC score of C or better. However, the widened curb lane can be an interim solution where space for a bike lane is created by narrowing the other traffic lanes during a road repaving project but where the route does not yet connect to destinations.

**3a. Bike Lane by Striping:** An existing shoulder or an area along the curb is striped and/or marked for a bike lane, without restriping any of the existing traffic lanes.

**3b. Bike Lane by Restriping:** The traffic lanes are narrowed (to a minimum of 10 feet wide) to accommodate bike lanes.

**4a. Bike Lane by Reconfiguring Medians:** Where a median exists, space for bike lanes is created by a combination of narrowing the median as well as the traffic lanes.

**4b. Bike Lane By Widening within Existing Right-of-Way:** Space for bike lanes is created by widening the road within the existing right-of-way. Since few roads have spare right-of-way, this type of improvement is rare.



**5. Bike Lane by Right-of-Way Widening:** Additional right-of-way or an access easement is needed to accommodate the added bike lane paving.

The priority recommendations of the projects are based according to the cost and complexity of implementation, as well as projected levels of use. In general, Type 1, 2 and 3 improvements are candidates for short term, high priority implementation because they are the easiest and least costly. Conversely, Type 4 and 5 projects which require right-of-way acquisition and road widening are generally prioritized as long term, low priority due to their complexity and cost.

Additionally, the following were considered in determining the implementation priority:

- Identified by citizens at the citizen workshops as a priority
- Potential for a high level of use:
  - Areas with high residential density
  - Serving popular destinations for pedestrians and bicyclists such as parks, schools, transit stops, and shopping areas
- Areas that already have pedestrian or bicycle activity but need improvement, particularly for safety reasons
- Important link in a broader or regional network
- Ability to be incorporated with another construction project or maintenance operation

As with shared use path and pedestrian projects, the availability of public funding will continue to be a factor in determining when a project can be implemented.

## **Signature Streets**

A Signature Street is a concept developed for the redevelopment of county arterial roads. It incorporates Context Sensitive Design and Complete Streets principles to accommodate many travel modes and serve individuals of all ages and abilities. The intention is, as the selected county road corridors are improved or widened, to rebuild them so that they are not only multi-modal, but also provide the design amenities that make them more like linear parks, providing an aesthetic quality that will help improve the image of the county.

The Signature Streets concept links the various smart growth planning visions and initiatives that Baltimore County has embraced, including community conservation, revitalization, transit-oriented development, redevelopment in community enhancement areas, and the promotion of livable and walkable communities—strengthening

and extending the quality of life enjoyed by Baltimore County residents.

Three county road corridors are designated as Signature Streets by this plan:

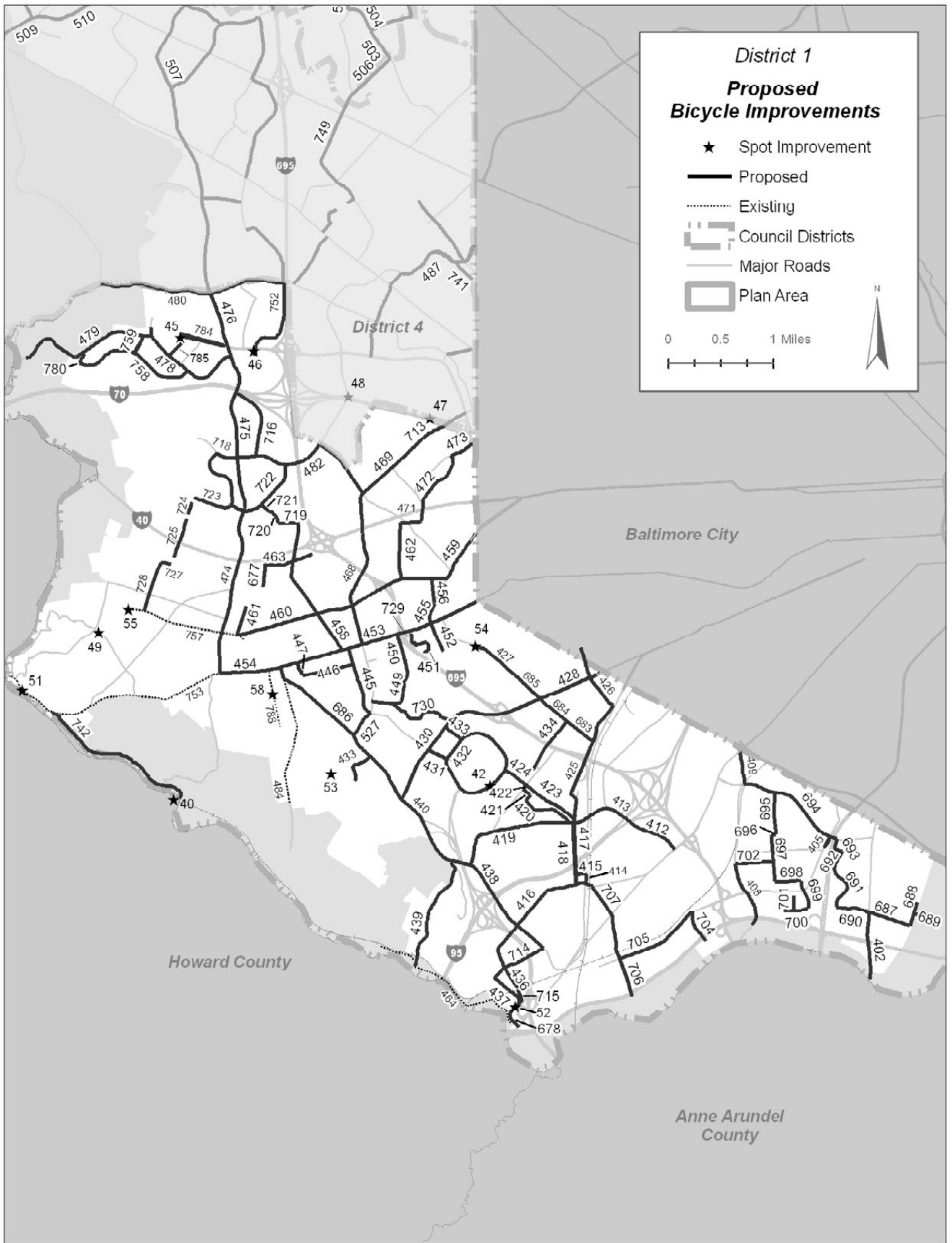


*The Signature Street concept transforms selected county arterials into attractive, multi-modal corridors.*

1) Rolling Road, the only direct north-south route in the plan area, is one of the busiest county arterial roads with average daily traffic as high as 26,000 vehicles on certain segments. The road is mostly four lanes. Some portions of lanes in either direction are used for parking, with gaps in the sidewalk network, and limited right-of-way, making it difficult to add dedicated bicycle lanes without widening.

2) Seminary Avenue, a significant east-west connection serving a variety of destinations, could be widened to include continuous facilities for bicycling and walking in a manner that is context sensitive to the adjoining land uses, which are mostly residential. The portion of Seminary Avenue between Falls Road and York Road is a state road. The road east from York Road to Providence Road is county owned and maintained.

3) The Joppa Road/Old Court Road corridor is also an important east-west connector. It spans not only the west side of the county, but links to the east side as well.





## Map Key DISTRICT 1 – PROPOSED BICYCLE IMPROVEMENTS

No.	Name	From	To	Type <sup>1</sup>	Existing BLOC	Proposed BLOC	Priority <sup>2</sup>
<b>EXISTING</b>							
464	Glen Artney/River Rd	Glen Artney parking lot	South Road	1a	A	-	0
484	Hilton Ave	S Rolling Rd	Basswood Ct	3	A	-	0
624	Connection to No. 8 Trolley Trail	Edmondson/Dutton Ave	No. 8 Trolley Trail	1a	-	-	0
753	Frederick Rd	Howard County line	City line	1a	-	-	0
757	Edmondson Ave	Chalfonte Dr	Oakdale Avenue	3	A	-	0
788	Montrose Ave	Frederick Rd	Tredegar Avenue	3	A	-	0
<b>PROPOSED</b>							
402	Annapolis Road	Virgina Avenue	Anne Arundel County line	3a	E	C	1
405	Hollins Ferry Road	BGE/Lansdowne HS	Daisy Ave	3b	E	C	3
407	Lansdowne Road	Hollins Ferry Road	Hammonds Ferry Road	3b	E	C	2
408	Hammonds Ferry Rd	5th Ave	Prop. Patapsco Valley Path	5	D	D	3
409	Hammonds Ferry Rd	Lansdowne Road	Baltimore City line	3a	C	C	2
412	Sulphur Spring Road	Washington Boulevard	I-95 Bridge	3a	D	B	1
413	Sulphur Spring Road	I-95 Bridge	Birch Avenue	3b	E	C	1
414	Southwestern Blvd	Tomday Blvd	Francis Ave	3b	F	D	1
415	Tomday Boulevard	Carville Avenue	Southwest Boulevard	1a	A	A	1
416	Francis Avenue	S Rolling Road	Selma Ave	1a	D	B	1
417	Oregon Avenue	Poplar Avenue	Francis Avenue	1a	A	A	1
418	Carville Avenue	Poplar Avenue	Francis Avenue	1a	A	A	1
419	Sulphur Spring Rd	Carville Ave	Selford Rd	1a	A	A	1
420	Birch Avenue	Sulphur Spring Road	Locust Avenue	1a	C	C	1
421	Locust Avenue	Birch Avenue	Shelbourne Road	1a	C	C	1
422	Shelbourne	Locust Avenue	Poplar Avenue	1a	C	C	1
423	Poplar Avenue	Shelbourne Road	East Drive	1a	C	C	1
424	Poplar Avenue	Hilltop Circle	Shelbourne Road	1a	A	A	1
425	Leeds Avenue	Linden Avenue	Maiden Choice Lane	1c	D	D	2
426	Beechfield Avenue	College Rd	Leeds Avenue	1c	D	D	3
427	Maiden Choice Lane	Leeds Avenue	Shelbourne Road	5	E	D	3
428	Wilkens Avenue	Leeds Avenue	Alan Drive	3a	E	B	1
429	Wilkens Avenue	Alan Drive	Valley Road	3b	C	A	1
430	Wilkens Avenue	Valley Road	Rolling Road	1a	C	B	1
431	Hilltop Road	Hilltop Circle	Wilkens Avenue	1a	C	C	1
432	Hilltop Circle	West Edge of Poplar Ave	East Edge of Poplar Ave	1a	C	C	1
433	Walker Avenue	Wilkens Avenue	Hilltop Circle	1c	D	D	1
434	Westland Boulevard	Linden Avenue	Maiden Choice Lane	1a	C	C	1
436	Arlington Ave	S Rolling Rd	Maple Ave	1a	B	B	1
437	S Rolling Rd	Francis Ave	South St	1a	B	B	1
438	Selford Road	Rolling Rd/Gun Road	Oakland Rd	3a	C	A	1

### 1: Type Key

1a = Share the road signage  
 1b = Bicycle boulevard  
 1c = Share the road signage, advanced  
 3a = Bike lane by striping  
 3b = Bike lane by restriping  
 4a = Bike lane by reconfiguring median  
 4b = Bike lane by widening within existing right-of-way  
 5 = Bike lane by widening existing right-of-way

### 2: Priority Key

0 = Existing  
 1 = High priority, short-term implementation  
 2 = Moderate priority, mid-term implementation  
 3 = Low priority, long-term implementation

## Map Key, Continued

# DISTRICT 1 – PROPOSED BICYCLE IMPROVEMENTS



No.	Name	From	To	Type <sup>1</sup>	Existing BLOC	Proposed BLOC	Priority <sup>2</sup>
439	Gun Road	S Rolling Road	State Park	1a	C	C	1
440	S Rolling Road	Bloomsbury Avenue	Gun Road	1c	F	E	1
443	Campus Drive	S Rolling Road	CCBC Campus	3a	C	B	2
445	Mellor Avenue	Frederick Road	Bloomsbury Avenue	1a	C	C	1
446	Magruder Avenue	Stanley Park Drive	Mellor Avenue	1a	B	B	1
447	Stanley Park Drive	Frederick Road	Magruder Avenue	1a	C	C	1
448	Asylum Lane	Bloomsbury Avenue	Hickory Drive	1a	C	C	2
449	Hickory Drive	Asylum Lane	Wade Avenue	1a	B	B	1
450	Wade Avenue	Locust Avenue	Frederick Road	1a	C	C	1
451	Shady Nook Avenue	Frederick Road	Short Line Trail	1a	A	A	1
452	Prospect Avenue	Frederick Road	Short Line Trail	1a	B	B	1
453	Frederick Road	Baltimore City Line	Forest Drive	3b	E	C	1
454	Frederick Road	Forest Dr	Rolling Road	3a	B	A	1
455	Edmondson Ridge Road/Prospect Ave	Ridge Road	Frederick Road	1a	B	B	1
456	Ridge Road	Edmondson Avenue	Edmondson Ridge Road	1a	A	A	1
457	Ingleside Avenue	Edmondson Avenue	Frederick Road	1c	D	D	3
458	Winters Lane	Frederick Road	Path connector at Walden Mill	1a	D	C	1
459	Edmondson Avenue	Baltimore City Line	Harlem Lane	3a	C	A	1
460	Edmondson Avenue	Harlem Lane	Oakdale Avenue	3a	D	B	1
461	Oakdale Avenue	Edmondson Avenue	Catonsville Park	1a	C	C	1
462	Harlem Lane	Old Frederick Road	Edmondson Avenue	1a	C	C	1
463	Old Frederick Road	Banneker Community Center	Dunbar Avenue	1a	A	A	1
468	Ingleside Avenue	Baltimore National Pike	Edmondson Avenue	1c	E	E	3
469	Ingleside Avenue	Sunset Ave	Baltimore National Pike	3a	D	B	1
471	Old Frederick Road	Harlem Lane	St. Agnes Lane	1c	D	D	2
472	St Agnes Lane	Old Frederick Road	Forest Park Avenue	1a	A	A	1
473	Forest Park Avenue	St Agnes Lane	Cooks Ln	3a	D	C	1
474	N Rolling Road	Baltimore National Pike	Frederick Road	5	E	E	3
475	N Rolling Road	Security Boulevard	Baltimore National Pike	1c	F	E	1
476	Rolling Road	Windsor Boulevard	Security Boulevard	1c	F	F	1
478	Fairbrook Road	Rolling Road	Red Line Path	1a	A	A	1
479	Johnnycake Road	Fairbrook Road	Pickall Dr	5	D	B	1
480	Dogwood Road	Western Area Park	Belmont Avenue	5	E	C	3
482	Crosby Road	Rolling Road	Johnnycake Road	3a	C	A	1
494	Ambassador Road	Dogwood Road	Lord Baltimore Drive	3a	D	B	3
526	Johnnycake Rd	Woodlawn Dr	Ingleside Av	1a	C	C	2
527	Bloomsbury Ave	Rolling Road	Mellor Ave	3a	D	C	1
677	Dunbar Avenue	Old Frederick Road	Catonsville Park	1a	A	A	1
678	South St	Washington Blvd	S Rolling Rd	1a	A	A	1
683	Maiden Choice Lane	Shelbourne Road	Wilkens Avenue	1a	C	C	2
684	Maiden Choice Lane	Wilkens Avenue	Maiden Choice Ctr	3a	B	B	1
685	Maiden Choice Lane	Maiden Choice Medical Ctr	Garden Ridge Road	5	E	C	3
686	Rolling Road	Frederick Road	Bloomsbury Avenue	1c	E	E	1
687	Virginia Avenue	Annapolis Road	Baltimore Street	1a	A	A	1
688	Baltimore Street	Virginia Avenue	Light Rail Stop	1a	A	A	1
689	Georgia Ave.	Baltimore Street	SW Area Park Path	1a	A	A	1
690	Virginia Ave	Annapolis Road	McDowell Ln	1a	A	A	1
691	McDowell Ln	Virginia Ave	Myrtle Ave	1a	A	A	1



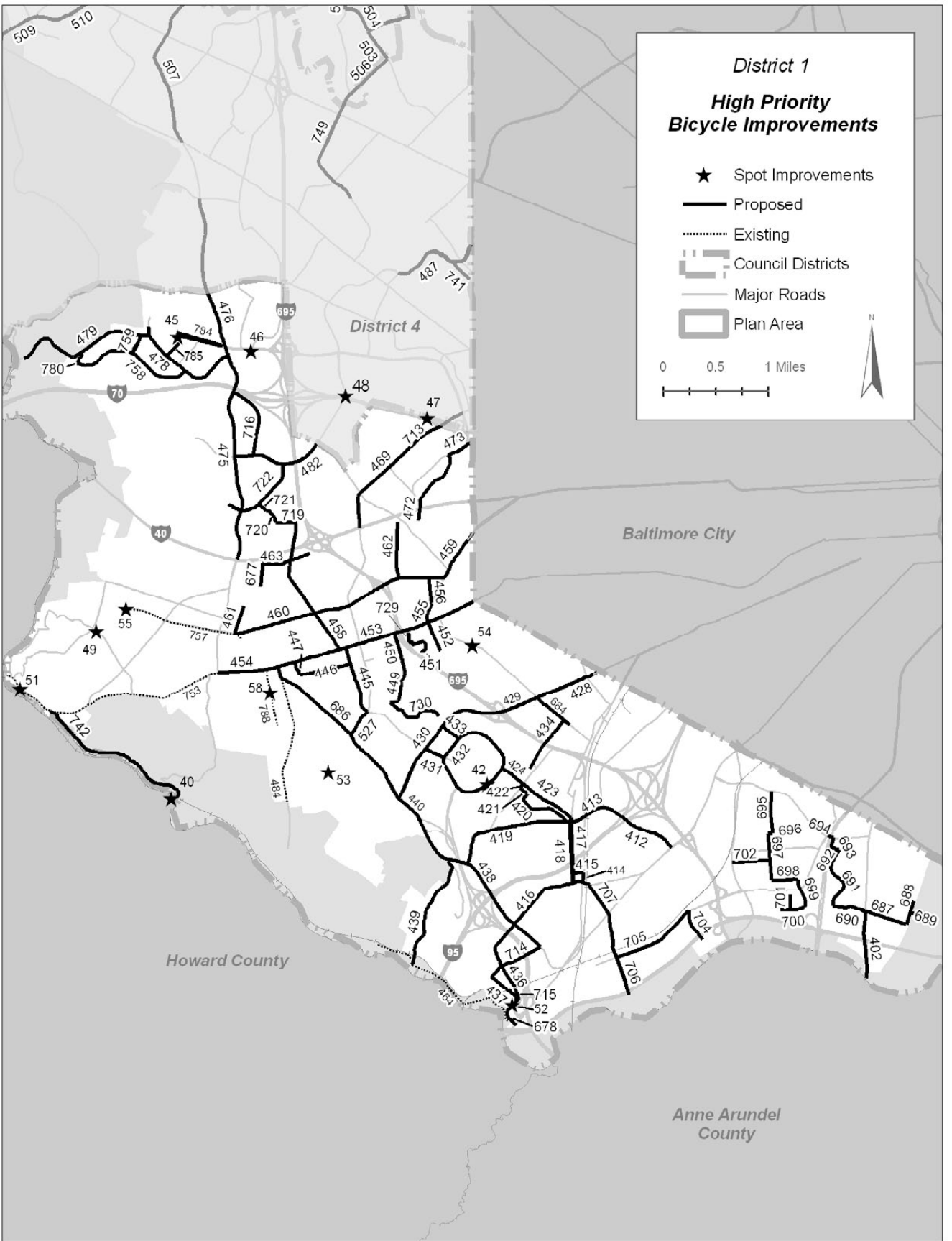
## Map Key, Continued

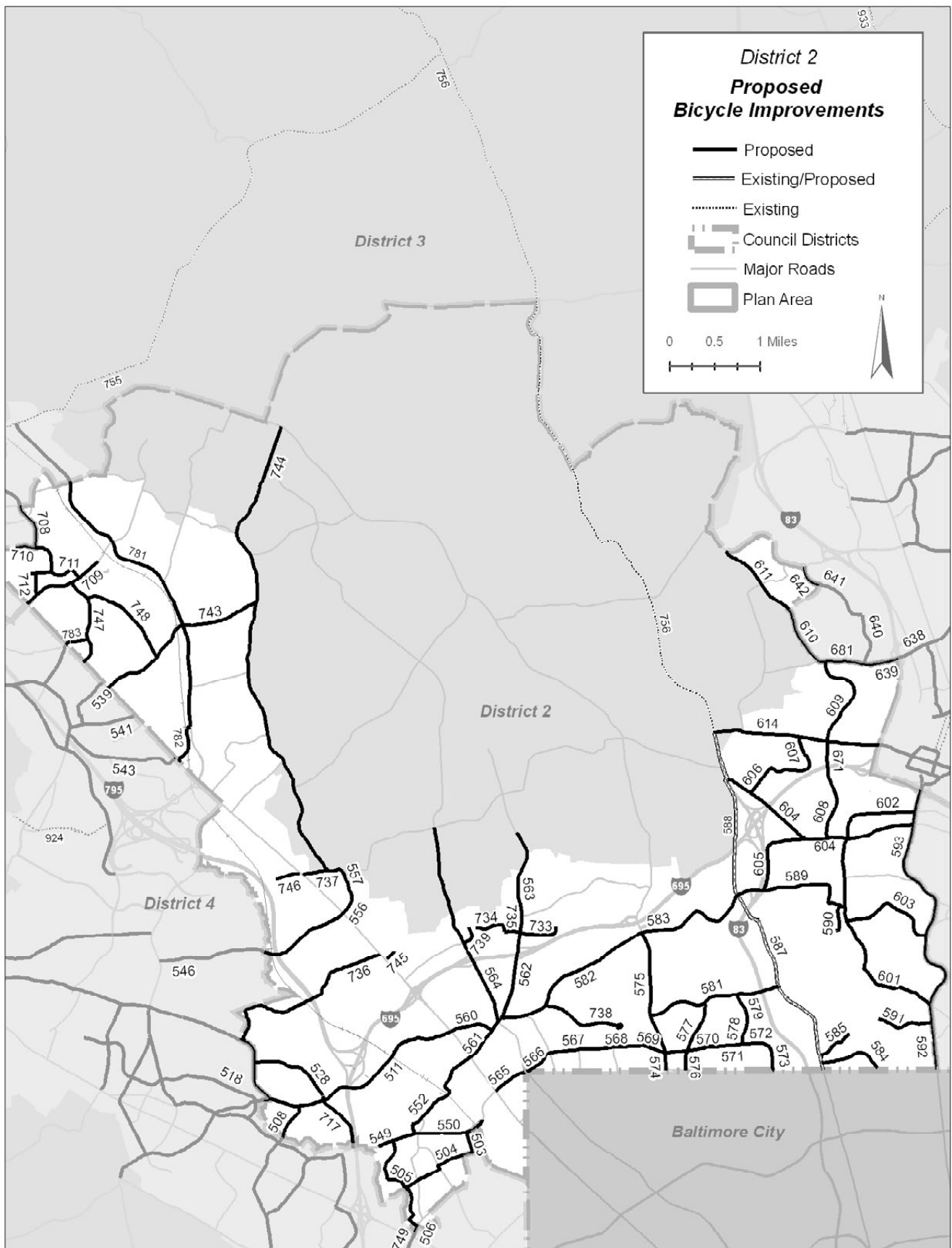
### DISTRICT 1 – PROPOSED BICYCLE IMPROVEMENTS

No.	Name	From	To	Type <sup>1</sup>	Existing BLOC	Proposed BLOC	Priority <sup>2</sup>
692	Myrtle Ave	McDowell Ln	Tulip Ave	1a	A	A	1
693	Tulip Ave	Myrtle Ave	Daisy Ave	1a	A	A	1
694	Daisy Avenue	Tulip Ave	Hollins Ferry Rd	1a	A	A	1
695	Alma Road	Lansdowne Road	Clyde Ave	1a	A	A	1
696	Clyde Ave	Alma Road	Charleston Ave	1a	A	A	1
697	Charleston Ave	Clyde Ave	Bigley Ave	1a	A	A	1
698	Bigley Ave	Charleston Ave	Bero Rd	1a	A	A	1
699	Bero Rd	Bigley Ave	Caledonia Ave	1a	A	A	1
700	Caledonia Ave	Bero Rd	End	1a	A	A	1
701	Kessler Rd	Caledonia Ave	Riverview ES	1a	A	A	1
702	5th Ave	Charleston Ave	Hammonds Ferry Rd	1a	A	A	1
704	Transway Rd	Hollins Ferry Rd	End	1a	A	A	1
705	Hollins Ferry Rd	Transway Rd	Halethorpe Farms Rd	3a	A	A	1
706	Halethorpe Farms Rd	Patapsco Trail	Washington Blvd	1a	A	A	1
707	Selma Ave	Washington Blvd	Francis Ave	1a	A	A	1
713	Ingleside Ave	Sunset Ave	Future Rail Stop	3a	A	A	1
714	Cedar Ave	Selford Ave	Arlington Ave	1a	A	A	1
715	East St	Rolling Rd	St Denis Rail Stop	1a	A	A	1
716	Johnnycake Rd	Rolling Rd	Crosby Rd	1a	C	C	1
718	Crosby Rd	Pleasant Valley Dr	Rolling Rd	1a	B	B	2
719	Walden Mill Way	Winters Ln	Alexander Ave	1a	A	A	1
720	Alexander Ave	Walden Mill Way	Gilston Park Rd	1a	A	A	1
721	Gilston Park Rd	Alexander Ave	Chesworth Rd	1a	A	A	1
722	Chesworth Rd	Pleasant Valley Dr	Crosby Rd	1a	A	A	1
723	Pleasant Valley Dr	Path Connection	Crosby Rd	1a	A	A	2
724	Nuwood Dr	Path Connection	Path Connection	1a	A	A	2
725	Nuwood Dr	Baltimore Natl Pike	Baltimore Natl Pike	1a	A	A	2
726	Shared Driveway	Baltimore Natl Pike	Baltimore Natl Pike	1a	A	A	2
727	West Geipe Rd	Path Connection	Oak Lodge Rd	1a	A	A	2
728	Oak Lodge Rd	West Geipe Rd	Edmondson Ave	1a	A	A	2
729	Altamont Ave/ Blackeney Rd/Alley	Shady Nook	Short Line Path at Frederick Rd Bridge	1a	A	A	1
730	Oak St/Ash St	Asylum Ln	Valley Rd	1a	B	B	1
731	East Dr	Poplar Ave	Linden Ave	1c	E	E	2
732	Linden Ave	East Dr	Leeds Ave	1c	D	D	2
740	Valley Rd	Oak Rd	Wilkens Ave.	1a	A	A	2
742	River Road	Frederick Rd	Howard County	1a	A	A	1
752	Belmont Ave	Security Mall	Dogwood Rd	3a	D	C	2
758	Cantwell Rd	Fairbrook Road	Cross Trails Road	3a	A	A	1
759	Oldstone Rd	Johnnycake Road	Cantwell Rd	3a	A	A	1
780	Cross Trails Road	Johnnycake Road	Cantwell Rd	3a	A	A	1
784	Security Blvd	Rolling Rd	CMS Drwy	3b	A	A	1
785	Winder Rd	Fairbrook Road	Chadwick ES	1a	A	A	1

#### SPOT IMPROVEMENTS

No.	Location	Improvement
40	At new bridge on Grindmill Trail	Parking
42	UMBC loop	Remove rumble strips
45	Red Line Rail Stop at CMS	Bike parking
46	Red Line Rail Stop at Security Square Mall	Bike parking
47	Red Line Rail Stop at SSA near 1-70	Bike parking
49	No. 9 at Oella Ave.	Path crossing, rumble strips
51	Frederick Rd near Oella	Address blind spot
52	South Street	Replace inlet grates
53	CCBC Campus Drive	Replace inlet grates
54	Short Line and Maiden Choice Ln	Crosswalk, signage
55	Chalfonte and Edmondson	Add stop signs on Chalfonte to facilitate path access
58	Montrose Ave	Construct bike lane bypass around barrier







## Map Key

# DISTRICT 2 – PROPOSED BICYCLE IMPROVEMENTS



No.	Name	From	To	Type <sup>1</sup>	Existing	Proposed	Priority <sup>2</sup>
					BLOC	BLOC	
<b>EXISTING</b>							
756	Falls Rd	Seminary Rd	Mt Carmel Rd	1c	-	-	0
<b>PROPOSED</b>							
503	Roman Frasier Ln	Bedford Rd	Milford Mill Rd	1a	A	A	1
504	Bedford/Campfield/ Bedford Rd	Prince George Rd	Roman Frasier Ln	1a	A	A	1
505	Prince George/Villa Nova/Queen Anne Rd	Essex Rd	Milford Mill Rd	1a	B	B	1
506	Essex Road	Liberty Road	Queen Anne Road	1c	D	D	1
508	Rolling Road	Old Court Road	MD 26 Liberty Road	3a	E	B	1
511	Old Court Road	Liberty Road	Reisterstown Road	1c	F	E	1
525	Winands Road	Marriottsville Rd	Cedars Mill Road	3a	C	A	2
528	Scotts Level Road	Old Court Road	Winands Road	3a	D	B	1
546	McDonogh Road	Painters Mill Road	Reisterstown Road	5	F	C	3
549	Milford Mill Road	Cloudyfold Rd	Sudbrook Rd	3a	D	C	2
550	Milford Mill Road	Sudbrook Rd	Roman Frasier Ln	3a	E	C	2
552	Sudbrook Lane	Reisterstown Road	Milford Mill Road	1c	D	D	2
556	Craddock Lane	Reisterstown Road	After Village Queen Dr	3b	C	B	2
557	Craddock Lane	After Village Queen Drive	Green Spring Valley Road	1c	D	D	2
560	Old Court Road	Reisterstown Road	Park Heights Avenue	1c	F	E	1
561	Sudbrook Lane	Reisterstown Road	Park Heights Avenue	3a	C	A	1
562	Stevenson Road	Old Court Road	Philips Drive	3a	C	B	1
563	Stevenson Road	Philips Drive	Greenspring Valley Rd	5	E	E	3
564	Park Heights Avenue	Old Court Road	Green Spring Valley Rd	1c	F	E	1
565	Slade Avenue	Reisterstown Road	Park Heights Avenue	3b	E	B	2
566	Slade Avenue	Park Heights Avenue	Seven Mille Lane	3b	E	C	2
567	Smith Avenue	Seven Mile Lane	Sanzo Road	3a	D	C	1
568	Smith Avenue	Sanzo Road	Wickfield Road	3a	D	B	1
569	Smith Avenue	Wickfield Road	Old Pimlico Road	3a	D	B	1
570	Smith Avenue	Old Pimlico Road	Deancroft Road	5	E	B	3
571	Smith Avenue	Deancroft Road	Broadview Road	3b	D	C	3
572	Smith Avenue	Broadview Road	Penny Lane	5	D	B	3
573	Smith Avenue	Penny Lane	Baltimore City Line	3a	D	C	3
574	Green Spring Avenue	Baltimore City Line	Smith Avenue	3a	C	B	1
575	Green Spring Avenue	Old Court Road	Smith Avenue	1c	F	F	1
576	Old Pimlico/Pimlico Rd	Smith Avenue	Baltimore City Line	1a	B	B	1
577	Old Pimlico Road	Old Pimlico/Greensummit Rd	Smith Avenue	1a	B	B	1
578	Pheasant Cross Dr	Smith Avenue	Dead End Pheasant Cross	3a	B	A	3
579	Rockland Hills Drive	Dead End Rockland Hills Dr	Green Summit/ Old Pimlico Rd	3a	C	B	3
581	Old Pimlico/Greensummit Rd	Falls Road	Greenspring Avenue	3b	D	B	2
582	Old Court Road	Park Heights Avenue	Green Spring Avenue	1c	E	E	1
583	Old Court Road	Green Spring Avenue	Falls Rd	1c	E	E	1
584	Lake Ave	Baltimore City Line	Falls Rd	1c	E	E	1

### 1: Type Key

1a = Share the road signage  
 1b = Bicycle boulevard  
 1c = Share the road signage, advanced  
 3a = Bike lane by striping  
 3b = Bike lane by restriping  
 4a = Bike lane by reconfiguring median  
 4b = Bike lane by widening within existing right-of-way  
 5 = Bike lane by widening existing right-of-way

### 2: Priority Key

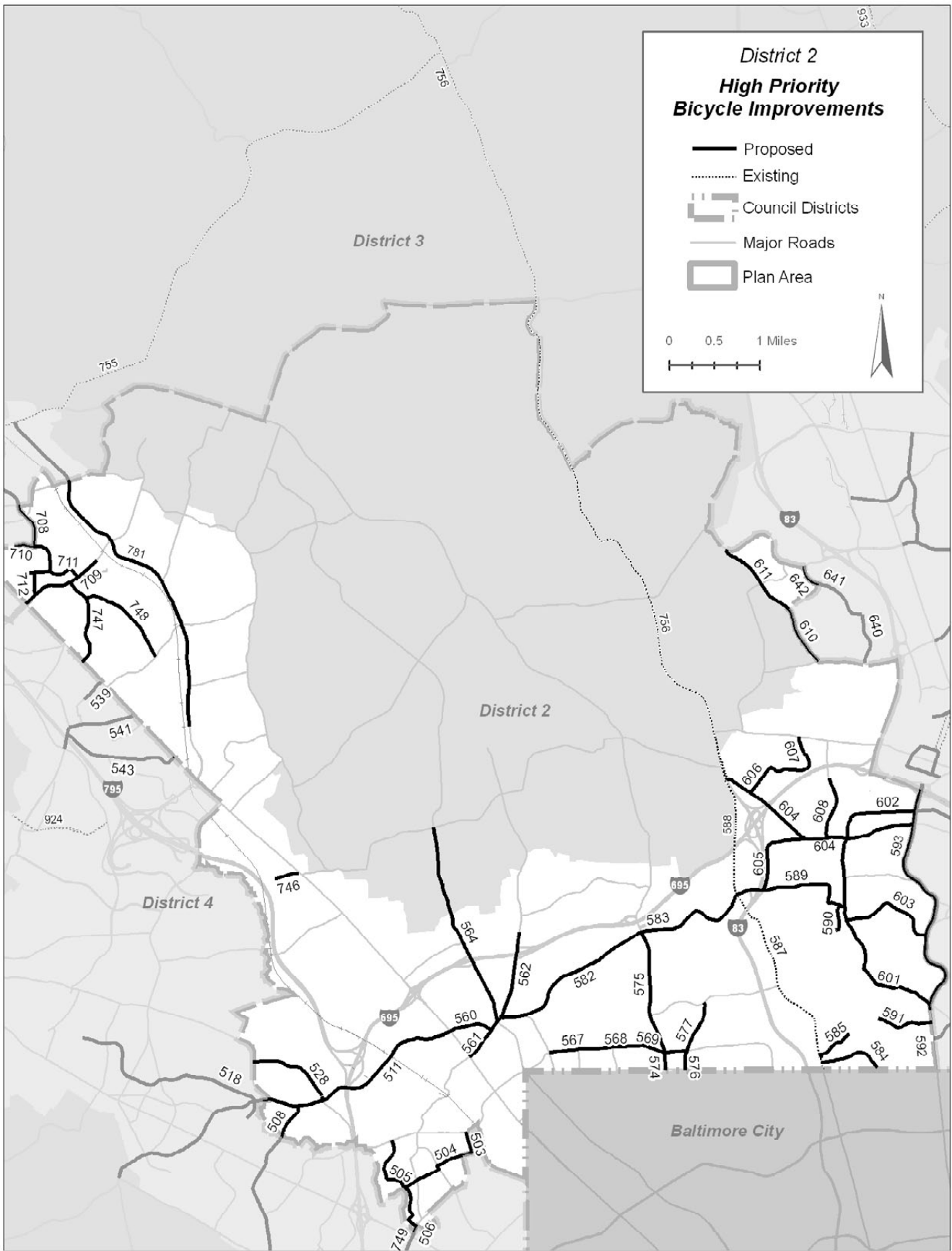
0 = Existing  
 1 = High priority, short-term implementation  
 2 = Moderate priority, mid-term implementation  
 3 = Low priority, long-term implementation

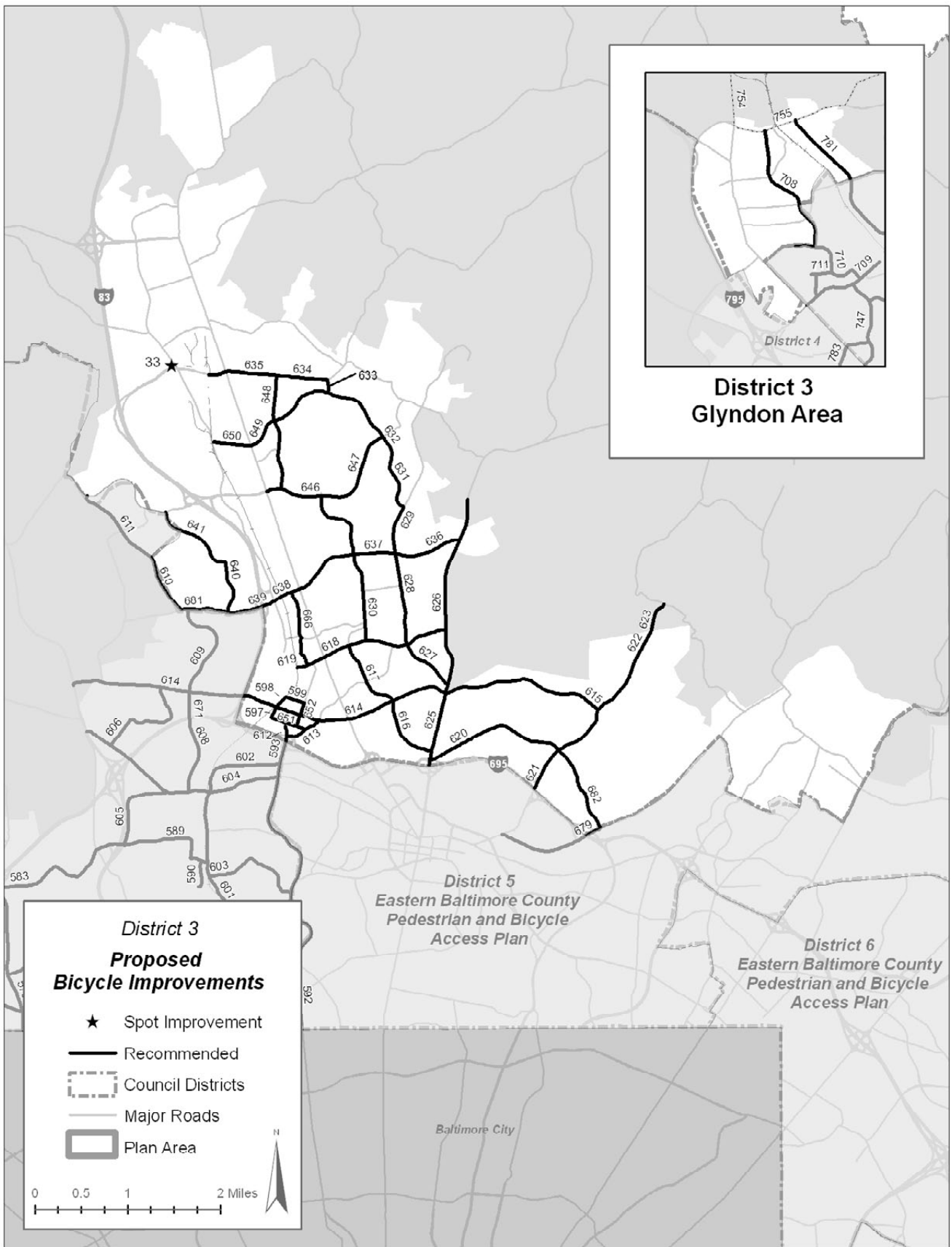


## Map Key, Continued

### DISTRICT 2 – PROPOSED BICYCLE IMPROVEMENTS

No.	Name	From	To	Type <sup>1</sup>	Existing BLOC	Proposed BLOC	Priority <sup>2</sup>
585	Lakeside Drive	Falls Road	Robert E Lee Park	1a	C	C	1
587	Falls Road	Ruxton Road	City Line	1c	E	C	3
588	Falls Road	Ruxton Road	Seminary Ave	1c	F	C	3
589	Ruxton Road	Bellona Avenue	Falls Road	1c	E	E	3
590	L' Hirondelle Club Rd	Ruxton Road	Club House	1a	B	B	1
591	Woodbrook Lane	Charles Street	Robert E Lee Park	1a	C	C	1
592	Charles Street	Baltimore City Line	Bellona Avenue	3b	E	D	2
593	Charles Street	Bellona Ave	Towsontown Boulevard	3a	B	A	1
594	Charles Street	Towsontown Boulevard	Joppa Road	3a	C	C	1
595	Charles Street	Joppa Road	Bellona Avenue	3a	C	B	1
601	Bellona Avenue	Charles Street	Ruxton Road	1c	D	D	1
602	Bellona Avenue	Ruxton Road	Charles Street	1c	D	D	1
603	Malvern Avenue	Bellona Avenue	Charles Street	1a	B	B	1
604	Joppa Road	Charles Street	Falls Road	1c	E	E	1
605	Old Court Road	Joppa Road	Ruxton Road	1c	E	E	1
606	Tally Ho Road	Joppa Road	Clearfield Circle	1a	B	B	1
607	Tally Ho Road	Clearfield Circle	Seminary Avenue	1a	A	A	1
608	Thornton Road	Joppa Road	Landon Ave	1a	D	B	1
609	Thornton Road	Seminary Avenue	Timonium Road	3a	C	A	2
610	Jenifer Road	Timonium Road	Oak Farm Court	1a	C	C	1
611	Jenifer Road	Oak Farm Court	Padonia Road	1c	D	D	1
614	W Seminary Avenue	Dulaney Valley Road	St Paul School	4b	D	C	3
639	Timonium Road	I-83	Pine Valley Drive	5	E	C	3
642	Greenpoint Road	Chatterton Road	Padonia Road	1a	C	B	1
671	Thornton Road	Landon Ave	Joppa Road	5	E	A	2
681	Timonium Road	Pine Valley Drive	Jenifer Road	4a	E	D	3
708	Sacred Heart Ln	Butler Rd	Walgrove Rd	3a	C	C	1
709	Cherry Hill Rd	Reisterstown Rd	End	3a	A	A	1
710	Walgrove Rd	Reisterstown Es	Shirley Manor Rd	1a	A	A	1
711	Shirley Manor Rd	Hannah More Park	Cherry Hill Rd	3a	A	A	1
712	Lindellen Ave	Shirley Manor Rd	Cherry Hill Rd	3a	A	A	1
717	Scotts Level Rd	Old Court Rd	Milford Mill Rd	5	E	A	3
733	Philips Dr	North Of Red Barn Ct	Melody Ln	1c	A	A	2
734	Woodvalley Dr	West End	Melody Ln	1c	A	A	2
735	Melody Ln	Woodvalley Dr	Philips Dr	1c	A	A	2
736	Mt Wilson Ln	Reisterstown Rd	Winands Rd	1c	D	D	2
737	Greenspring Valley Rd	Craddock Ln	Garrison Forest Rd	1c	D	D	2
738	Lightfoot Dr	Greenspring Quarry Trail	Garrison Forest Rd	1a	B	B	2
739	Michelle Way	Park Heights Ave	Connector Path	1a	A	A	2
743	Gwynnbrook Ave	Reisterstown Rd	Garrison Forest Rd	1c	D	D	3
744	Garrison Forest Rd	Greenspring Valley Rd	Greenspring Ave	1a	C	C	2
745	Keller Rd	Reisterstown Rd Sidepath	End	1a	A	A	2
746	Tobins Ln	Reisterstown Rd	End	1a	A	A	1
747	Highfalcon Rd	E Cherry Hill Rd	Reisterstown Rd	3a	C	B	1
748	Academy Ave	Highfalcon Rd	Gwynnbrook Ave	1c	D	D	1
781	Central Ave/Owings Mills Blvd	Butler Rd	Groff Rd/Stevenson Univ	3b	-	-	1
782	Groff Rd	Owings Mills Blvd	Reisterstown Rd	1a	A	A	2
783	Timber Grove/Delight Rd	Highfalcon Rd	Church Rd	1c	-	-	2





## Map Key

# DISTRICT 3 – PROPOSED BICYCLE IMPROVEMENTS



No.	Name	From	To	Type <sup>1</sup>	Existing BLOC	Proposed BLOC	Priority <sup>2</sup>
<b>EXISTING</b>							
754	Hanover Pike	Carroll County line	Butler Rd	1a	-	-	0
755	Butler Rd	Hanover Pike	Falls Rd	1a	-	-	0
<b>PROPOSED</b>							
597	Front Avenue	Lincoln Avenue	W Seminary Avenue	1a	B	B	1
598	Front Avenue	W Seminary Avenue	Morris Avenue	1a	B	B	1
599	Morris Avenue	Front Avenue	Francke Avenue	1a	A	A	1
610	Jenifer Road	Timonium Road	Oak Farm Court	1a	C	C	1
612	Charles Street	Bellona Avenue	End	1a	B	B	3
613	Bellona Avenue	Charles Street	W Seminary Avenue	5	E	B	3
614	W Seminary Avenue	Dulaney Valley Road	St. Paul School	4b	D	C	3
615	Seminary Avenue	Providence Road	Dulaney Valley Road	1a	D	C	2
616	Charmuth Road	Dulaney Valley Road	Seminary Avenue	1a	C	B	1
617	Charmuth Road	Seminary Avenue	Ridgely Road	3a	C	B	1
618	Ridgely Road	Dulaney Valley Road	York Road	3a	C	B	1
619	Ridgely Road	York Road	Lutherville L.R. Station	1a	C	B	1
620	Hampton Lane	Dulaney Valley Road	Providence Road	1a	C	A	1
621	Providence Road	Beltway 695	Hampton Lane	1a	B	B	1
622	Providence Road	Hampton Lane	Lake Crest	1c	E	D	1
623	Providence Road	Lake Crest	Loch Raven Reservoir	1c	C	C	1
625	Dulaney Valley Road	Beltway 695	Pot Spring Road	3b	F	C	2
626	Dulaney Valley Road	Pot Spring Road	Stella Maris Road	3a	E	D	2
627	Potspring Road	Dulaney Valley Road	Ridgely Road	1a	C	B	1
628	Potspring Road	Ridgely Road	Girdwood Road	1a	C	B	1
629	Pot Spring Rd	Chantrey Road	Stella Maris Road	1a	A	A	1
630	Eastridge Road	Ridgely Road	Padonia Road	3a	D	B	1
631	Girdwood Road	Potspring Road	Treherm Rd	1a	B	B	1
632	Cranbook Road/Girdwood	Greenside Drive	Treherm Rd	1a	D	C	2
633	Ridgland Road	Girdwood Road	Warren Road	1a	B	B	2
634	Warren Road	Greenside Drive	Ridgeland Road	5	F	C	2
635	Warren Road	York Road	Greenside Drive	5	F	E	2

**1: Type Key**

1a = Share the road signage  
 1b = Bicycle boulevard  
 1c = Share the road signage, advanced  
 3a = Bike lane by striping  
 3b = Bike lane by restriping  
 4a = Bike lane by reconfiguring median  
 4b = Bike lane by widening within existing right-of-way  
 5 = Bike lane by widening existing right-of-way

**2: Priority Key**

0 = Existing  
 1 = High priority, short-term implementation  
 2 = Moderate priority, mid-term implementation  
 3 = Low priority, long-term implementation



## Map Key, Continued

### DISTRICT 3 – PROPOSED BICYCLE IMPROVEMENTS

No.	Name	From	To	Type <sup>1</sup>	Existing BLOC	Proposed BLOC	Priority <sup>2</sup>
636	Timonium Road	Dulaney Valley Road	Potspring Road	4b	F	C	2
637	Timonium Road	Potspring Road	York Road	3a	E	B	1
638	Timonium Road	York Road	Beltway 83	5	F	C	3
639	Timonium Road	Beltway 83	Pine Valley Drive	5	E	C	3
640	Pine Valley Drive	Timonium Road	Dead End Pine Valley Dr	1a	A	A	1
641	Greenpoint Road	Pine Valley Drive	Chatterton Road	1a	A	A	1
642	Greenpoint Road	Chatterton Road	Padonia Road	1a	C	B	1
646	E Padonia Road	Eastridge Road	York Road	3a	D	B	1
647	E Padonia Road	Cranbrook Road	Eastridge Road	3a	D	C	1
648	Greenside Drive	Warren Road	Padonia Road	3a	D	B	1
649	Cranbrook Road	Greenside Drive	York Road	1a	D	D	1
650	Church Lane	York Road	Rail Road	1a	C	C	1
651	Lincoln Ave	Front Avenue	Bellona Avenue	1a	B	B	1
652	Francke Ave	Lincoln Ave	Morris Avenue	1a	B	B	1
653	Shopping Center Road	Ridgely Road	W Aylesbury Rd	5	D	D	2
666	Aylesbury Road	Shopping Center Rd	Timonium Road	1a	C	C	2
679	Cromwell Bridge Road	Providence Rd	Cowpens Ave	3a	D	B	1
681	Timonium Road	Pine Valley Drive	Jenifer Road	4a	E	D	3
682	Cowpens Avenue	Cromwell Bridge Road	Providence Road	1a	D	C	3
708	Sacred Heart Ln	Butler Rd	Walgrove Rd	3a	C	C	1
781	Central Ave/ Owings Mills Blvd	Butler Rd	Groff Rd/ Stevenson Univ	3b	-	-	1

### Spot Improvements

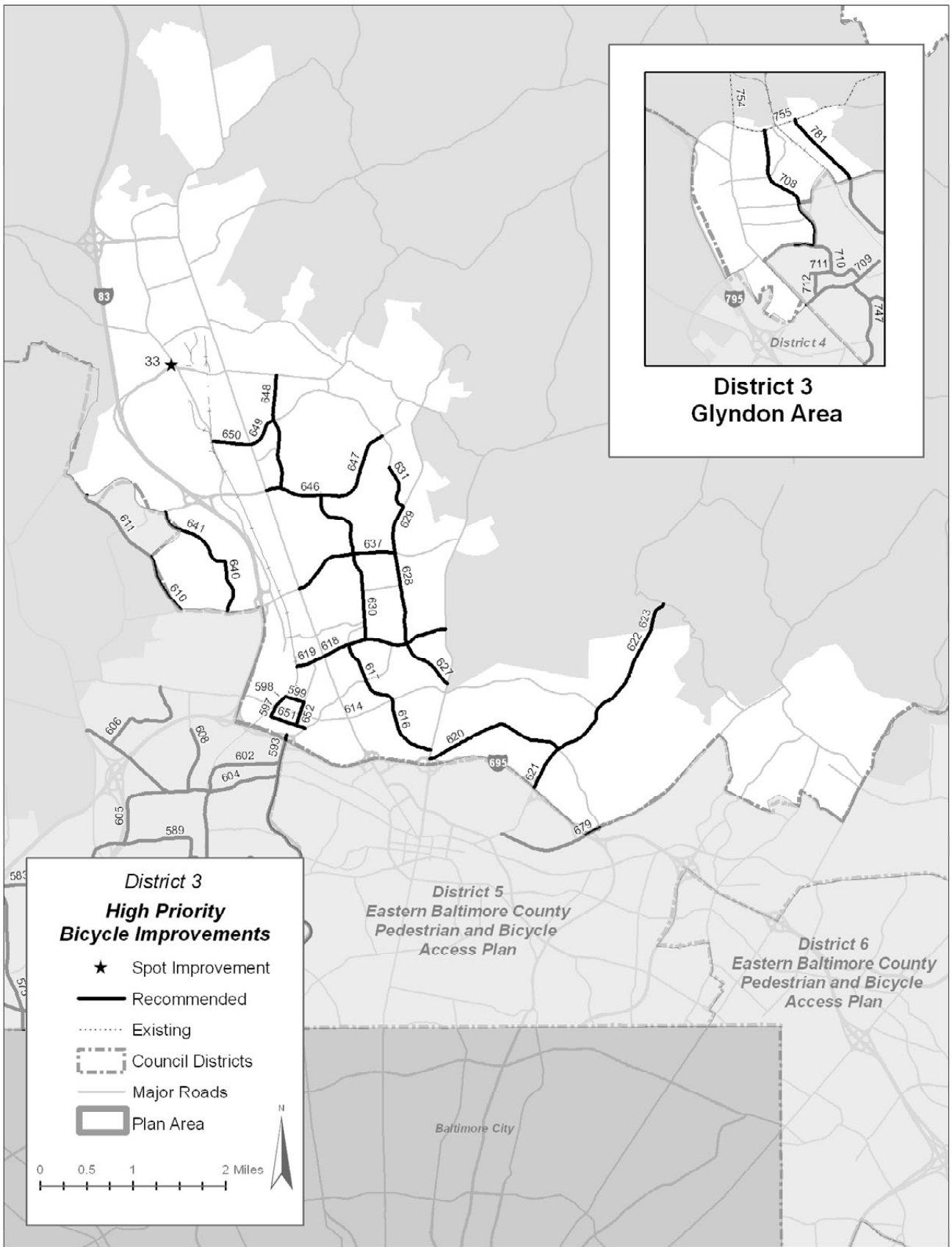
No.	Location	Improvement
33	Warren Rd Light Rail Station	Bike Rack

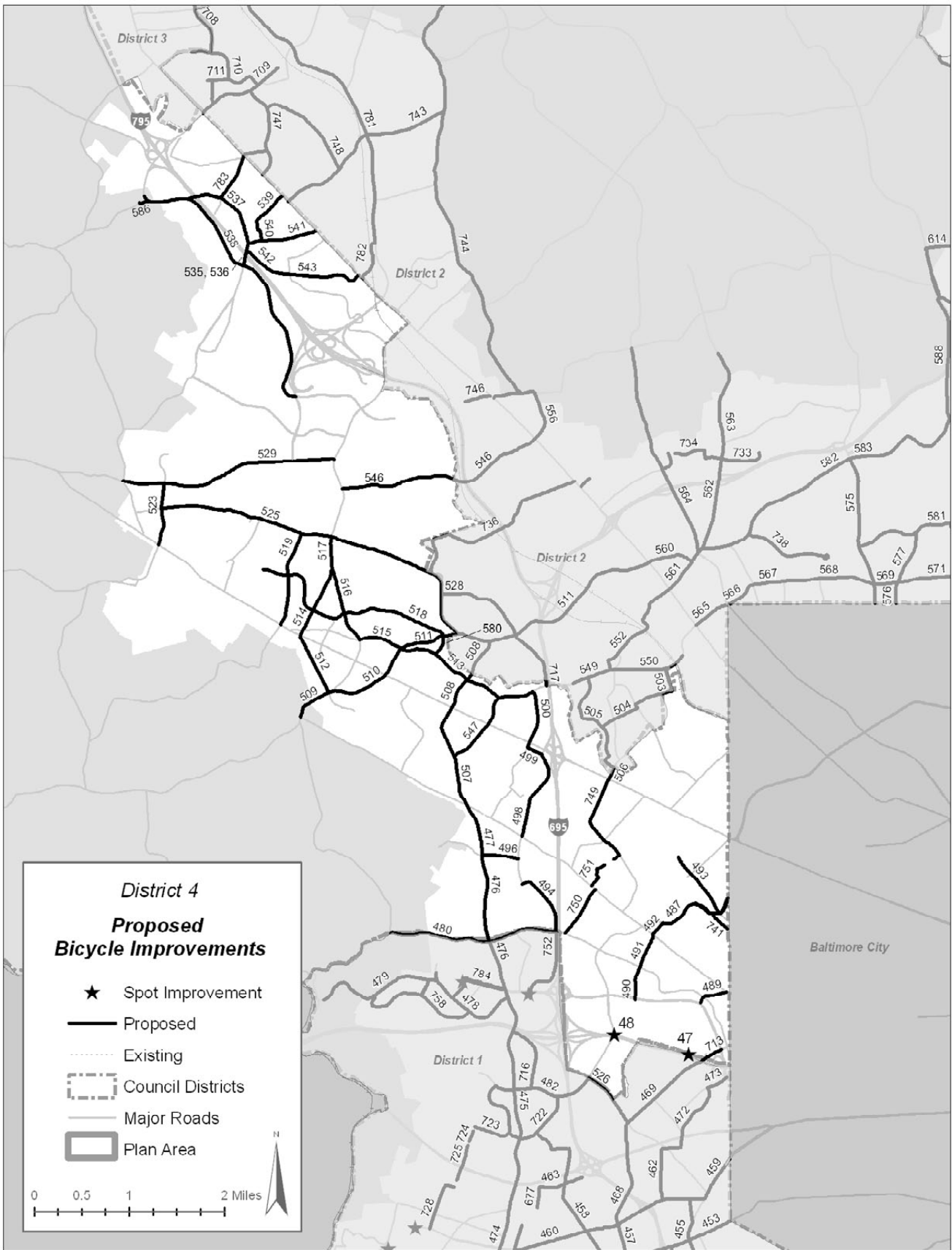
#### 1: Type Key

1a = Share the road signage  
 1b = Bicycle boulevard  
 1c = Share the road signage, advanced  
 3a = Bike lane by striping  
 3b = Bike lane by restriping  
 4a = Bike lane by reconfiguring median  
 4b = Bike lane by widening within existing right-of-way  
 5 = Bike lane by widening existing right-of-way

#### 2: Priority Key

0 = Existing  
 1 = High priority, short-term implementation  
 2 = Moderate priority, mid-term implementation  
 3 = Low priority, long-term implementation







## Map Key

# DISTRICT 4 – PROPOSED BICYCLE IMPROVEMENTS



No.	Name	From	To	Type <sup>1</sup>	Existing BLOC	Proposed BLOC	Priority <sup>2</sup>
<b>PROPOSED</b>							
476	Rolling Road	Windsor Boulevard	Security Boulevard	1c	F	F	1
477	Rolling Road	Windsor Mill Road	Windsor Boulevard	5	F	F	3
480	Dogwood Road	Western Area Park	Belmont Avenue	5	E	C	3
487	Gwynn Oak Avenue	City Line	West of Cedar Drive	1a	D	C	1
489	Kernan Drive	Dogwood Road	Windsor Mill Road	3a	D	B	2
490	Gwynn Oak Avenue	Security Boulevard	Dogwood Road	3b	D	C	2
491	Gwynn Oak Avenue	Dogwood Road	Windsor Mill Road	1c	D	D	2
492	Gwynn Oak Avenue	Windsor Mill Road	Woodlawn Drive	1c	D	C	2
493	Gwynndale Avenue	Gwynn Oak Avenue	Kelox Road	1a	C	B	2
494	Ambassador Road	Dogwood Road	Lord Baltimore Drive	3a	D	B	3
496	Windsor Boulevard	Ambassador Road	Rolling Road	3b	D	B	3
498	Lord Baltimore Drive	Windsor Mill Road	Lynne Haven Dr	5	E	C	3
499	Lynn Haven Drive	Lord Baltimore Drive	Washington Avenue	1a	A	A	3
500	Washington Avenue	Lynn Haven Drive	Milford Mill Road	3a	D	B	2
503	Roman Frasier Ln	Bedford Rd	Milford Mill Rd	1a	A	A	1
504	Bedford/Campfield/ Bedford Rd	Prince George Rd	Roman Frasier Ln	1a	A	A	1
506	Essex Road	Liberty Road	Queen Anne Road	1c	D	D	1
507	Rolling Road	Liberty Road	Windsor Mill Road	1c	F	F	1
508	Rolling Road	Old Court Road	Liberty Road	3a	E	B	1
509	Old Court Road	Windsor Mill Road	Greens Lane	1c	E	D	1
510	Old Court Road	Greens Lane	Liberty Road	1c	E	C	1
511	Old Court Road	Liberty Road	Reisterstown Road	1c	F	E	1
512	Greens Lane	Old Court Road	Liberty Road	1c	E	E	3
513	Church Lane	Old Court Road	Milford Mill Road	1a	B	C	2
514	McDonogh Road	Liberty Road	Brenbrook Drive	3a	D	B	2
515	Church Lane	Old Court Road	Brenbrook Drive	1c	D	D	2
516	Brenbrook Drive	Church Lane	McDonogh Road	1c	D	D	3
517	McDonogh Road	Brenbrook Drive	Winands Road	3b	D	B	2
518	Allenswood Road	Collier Road	Old Court Road	1a	A	A	1
519	Offutt Road	Liberty Road	Winands Road	3a	C	B	2
523	Marriottsville Road	Liberty Road	Lyons Mill Road	3a	C	A	1
525	Winands Road	Marriottsville Rd	Cedars Mill Road	3a	C	A	2
526	Johnnycake Rd	Woodlawn Dr	Ingleside Av	1a	C	C	2
529	Lyons Mill Road	Liberty Road	Painters Mill Road	5	E	E	3
535	Pleasant Hill Road	Red Run Boulevard	Tollgate Road	1a	A	A	1
536	Pleasant Hill Road	Tollgate Road	Church Road	1a	B	B	1
537	Church Road	Pleasant Hill Road	Red Run Boulevard	1a	B	B	3
538	Red Run Boulevard	Painters Mill Road	Owings Mills Boulevard	3b	F	C	3
539	Dolfield Boulevard	Millpond Court	Reisterstown Road	1a	C	C	1
540	Featherbed Lane	Pleasant Hill Road	Millpond Court	1a	C	A	2
541	Pleasant Hill Road	Church Rd	Reisterstown Road	1a	C	C	1
542	Tollgate Road	Ritters Lane	Pleasant Hill Road	1a	C	C	1
543	Tollgate Road	Reisterstown Road	Ritters Lane	1a	A	A	1
546	McDonogh Road	Painters Mill Road	Reisterstown Road	5	F	C	3
547	Milford Mill Road	Rolling Road	Washington Avenue	3a	D	C	2
550	Milford Mill Road	Sudbrook Rd	Roman Frasier Ln	3a	E	C	2
580	Downey Dale Dr	Allenswood Rd	Church Ln	1a	A	A	1



## Map Key, Continued

### DISTRICT 4 – PROPOSED BICYCLE IMPROVEMENTS

No.	Name	From	To	Type <sup>1</sup>	Existing BLOC	Proposed BLOC	Priority <sup>2</sup>
<b>PROPOSED</b>							
586	Church Road branch	Red Run Boulevard	Church Road	1a	A	A	3
713	Ingleside Ave	Sunset Ave	Future Rail Stop	3a	A	A	1
717	Scotts Level Rd	Old Court Rd	Milford Mill Rd	5	E	A	3
741	Purnell Dr	Gwynn Oak Ave	City Line	1a	A	A	1
749	Essex Rd	Liberty Rd	Windsor Blvd	3a	C	A	1
750	Featherbed Ln	Windsor Mill Rd	Dogwood Rd	1c	D	D	2
751	Sauter Ln	Windsor Mill Rd	Windsor Blvd/Path	1a	A	A	2
752	Belmont Ave	Security Mall	Dogwood Rd	3a	D	C	2

#### SPOT IMPROVEMENTS

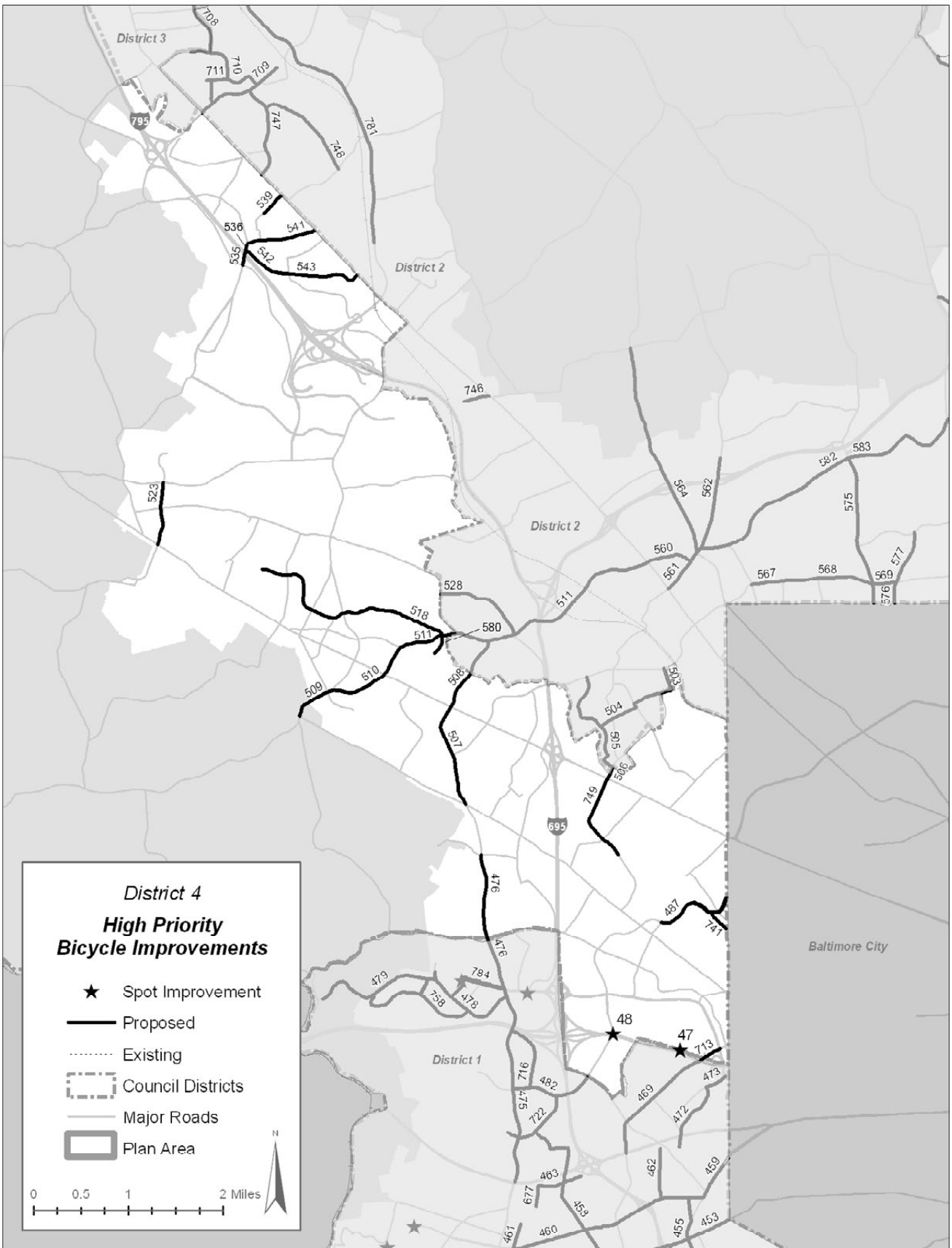
No.	Location	Improvement
47	Red Line Rail Stop at Woodlawn Dr.	Bike Parking/Stairs with Bike Gutter
48	Red Line Rail Stop near I-70 interchange	Bike Parking

#### 1: Recommendation Key

1a = Share the Road Signage  
 1b = Bicycle Boulevard  
 1c = Share the Road Signage, Advanced  
 3a = Bike Lane by Striping  
 3b = Bike Lane by Restriping  
 4a = Bike Lane by Reconfiguring Median  
 4b = Bike Lane by Widening within Existing Right-of-way  
 5 = Bike Lane by Widening Existing Right-of-way

#### 2: Priority Key

0 = Existing  
 1 = High priority, short-term implementation  
 2 = Moderate priority, mid-term implementation  
 3 = Low priority, long-term implementation



# Targeted Pedestrian, Bicycle and Shared Use Path Improvements

In addition to the priorities of the improvement lists, this plan also recommends that the Catonsville area be the focus of the initial improvements made in western Baltimore County.

The framework for establishing a highly walkable and bikeable community already exists and can be readily built upon. Catonsville has an active private nonprofit organization, Catonsville Rails To Trails, which has been instrumental in creating the No. 8 Streetcar Path, and is developing the Short Line Trail. The only existing bike lanes on county roads are located in Catonsville at Edmondson Road and Hilton Avenue.

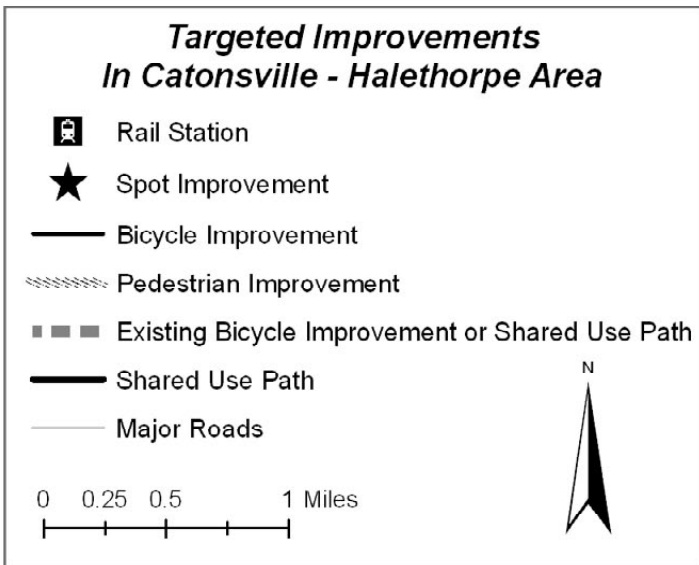
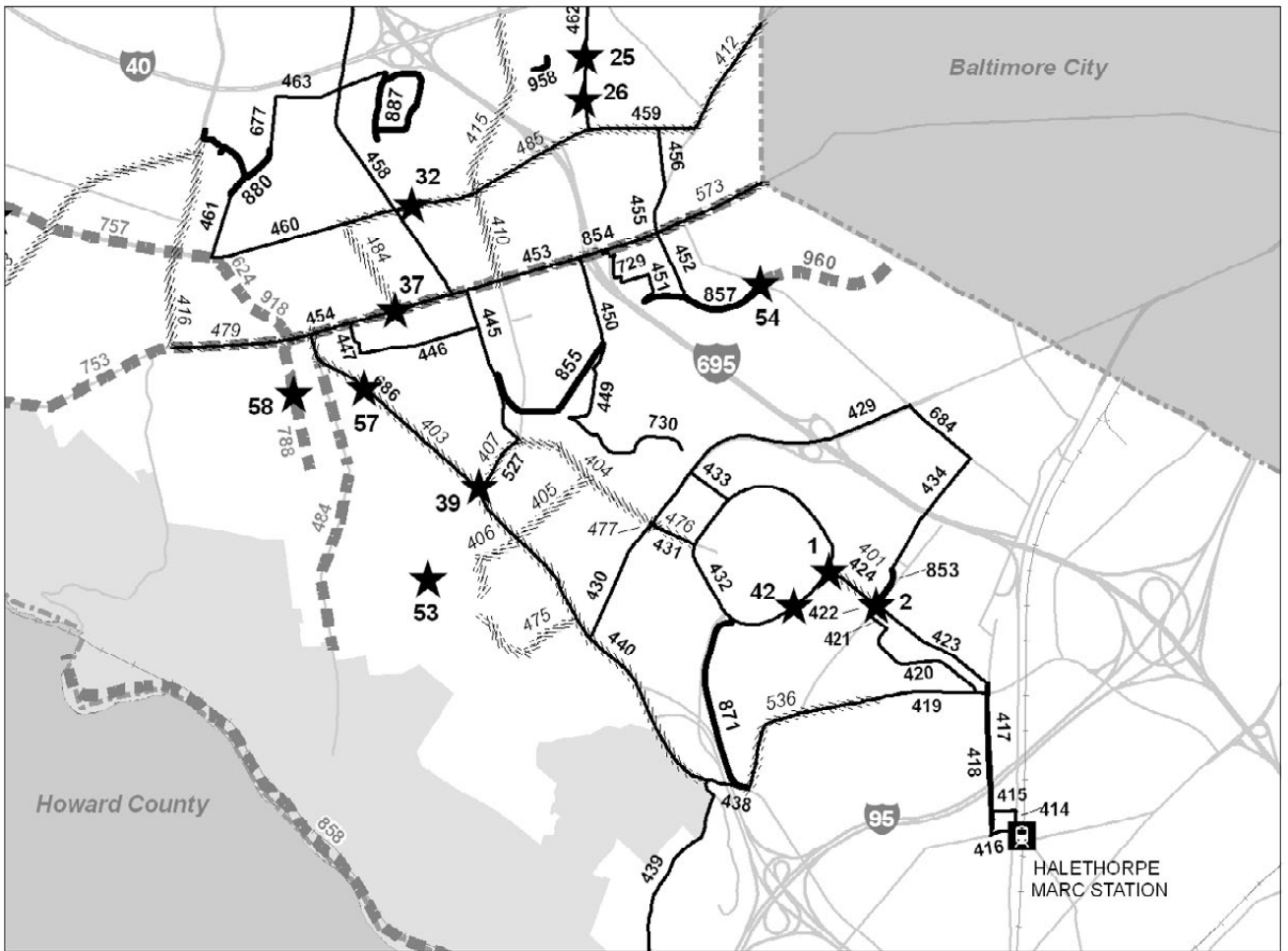
The presence of these facilities has increased the interest of the community in walking and bicycling, and the ability of new facilities to attract users is high. In addition, there are two nearby colleges— the Catonsville campus of the Community College of Baltimore County and the University of Maryland Baltimore County campus. Students attending these institutions are likely to use a well-connected bicycle system for commuting and to access commercial areas.



**Map Key**  
**TARGETED IMPROVEMENTS IN CATONSVILLE – HALETHORPE AREA**

No.	Name	From	To	Type <sup>1</sup>	Comment
<b>EXISTING IMPROVEMENT</b>					
484	Hilton Ave	S. Rolling Rd	Basswood Ct	3	Existing Bicycle lane
624	Connection to No. 8 Trolley Trail	Oakdale Ave	No. 8 Trolley Trail	1a	Existing route
753	Frederick Rd	Oella county line	City line	1a	Existing signed shoulder
757	Edmondson Ave	Chalfonte Dr	Oakdale Avenue	3	Existing shared parking/bike lane
788	Montrose Ave	Frederick Rd	Tedegar Ave	3	Existing Bicycle lane
858	Patapsco Valley State Park Trail	Glen Artney Rd Parking	Ilchester/River Road	6b	Existing Shared Use Path
918	No. 8 Trolley Trail	Edmondson Junction	Frederick Rd	6b	Existing Shared Use Path
960	Short Line Rail Trail	Maiden Choice Ln	Charlestown Ret. Village	6a	Existing Shared Use Path
<b>SHARED USE PATHS</b>					
853	Connector Path	Westland Boulevard	Poplar Avenue	6b	UMBC connector
854	Short Line Rail Trail	Wade Ave	Blakeney Rd Alley	6b	Shared Use Path Connection over Frederick Rd Bridge
855	Short Line Rail Trail	Mellor Avenue	Maple Street	6b	Shared Use Path
857	Short Line Rail Trail	Shady Nook Ave	City Line	6b	Shared Use Path
871	Metropolitan Blvd Sidepath	Hilltop Circle	Sulphur Spring Rd	6b	Sidepath
880	Catonsville Park Trail	Oakdale Avenue	Park parking lot/ Dunbar Ave	6b	First phase in engineering
887	Banneker CC Trail	Old Frederick Road	Banneker Community Center	6b	Shared Use Path
958	Existing Path Repaving	Longview Dr	Westowne ES	6b	Consider conversion to path

*Continued on Page 64*



**Map Key, Continued**  
**TARGETED IMPROVEMENTS IN CATONSVILLE – HALETHORPE AREA**

No.	Name	From	To	Type <sup>1</sup>	Comment
<b>PEDESTRIAN IMPROVEMENTS</b>					
401	Poplar Ave	Hilltop Circle	Shelbourne	1	
403	S Rolling Rd	Frederick Rd	IMetropolitan Boulevard	2	
404	Hilltop Rd	Wilkins Avenue	Bloomsbury Avenue	2	
405	Valley Rd	S Rolling Road	Hilltop Road	2	
406	Campus Dr	S Rolling Road	CCBC Campus	1	
407	Bloomsbury Ave	Mellor Ave	S Rolling Road	1	
410	Ingleside Ave	Edmondson Ave	Frederick Rd	2	
412	Edmondson Ave	Baltimore City Line	Harlem Ln	2	
415	Ingleside Ave	Baltimore National Pike	Edmondson Ave	2	
416	N Rolling Rd	Baltimore National Pike	Frederick Rd	2	
475	Collegiate Dr	S Rolling Rd	Ccbc Campus	1	
476	Hilltop Rd	Hilltop Circle	Wilkins Ave	1	
477	Hilltop Rd Roundabout	East Side Hilltop Road	West Side Hilltop Road	1	
479	Frederick Rd	Mellor Ave	Rolling Rd	2	
483	Old Frederick Rd	Rolling Road	Frederick Road	2	
484	N Beaumont Ave	Edmondson Ave	Frederick Rd	2	
485	Edmondson Ave	Harlem Ln	Beaumont Ave	2	
573	Frederick Rd	City Line	Bishops Ln	2	Planned streetscape project
<b>BICYCLE IMPROVEMENTS</b>					
414	Southwestern Blvd	Tomday Blvd	Francis Avenue	3b	Restripe for Bike Lane
415	Tomday Blvd	Carville Avenue	Southwest Blvd	1a	Share the Rd/Bicycle Route Sign
416	Francis Ave	Carville Avenue	Southwest Blvd	1a	Share the Rd/Bicycle Route Sign
417	Oregon Avenue	Poplar Avenue	Francis Avenue	1a	Share the Rd/Bicycle Route Sign
418	Carville Avenue	Poplar Avenue	Francis Avenue	1a	Share the Rd/Bicycle Route Sign
419	Sulphur Spring Rd	Carville Avenue	Selford Rd	1a	Share the Rd/Bicycle Route Sign
420	Birch Avenue	Sulphur Spring Road	Locust Avenue	1a	Possible Bike Boulevard
421	Locust Avenue	Birch Avenue	Shelbourne Road	1a	Share the Rd/Bicycle Route Sign
422	Shelbourne	Locust Avenue	Poplar Avenue	1a	Share the Rd/Bicycle Route Sign
423	Poplar Avenue	Shelbourne Road	East Drive	1a	Possible Bike Boulevard
424	Poplar Avenue	Hilltop Circle	Shelbourne Road	1a	Share the Rd/Bicycle Route Sign
428	Wilkins Avenue	Leeds Avenue	Alan Drive	3a	Shared bike/parking lane
429	Wilkins Avenue	Alan Drive	Valley Rd	3a	Shared bike/parking lane
430	Wilkins Avenue	Valley Road	Rolling Road	1a	Reduce speed; Share the Rd/Bicycle Route Sign
431	Hilltop Road	Hilltop Circle	Wilkins Avenue	1a	Share the Rd/Bicycle Route Sign
432	Hilltop Circle	West edge of Poplar Ave	East edge of Poplar Ave	1a	Remove rumble strips at bike area
433	Walker Avenue	Wilkins Avenue	Hilltop Circle	1c	Road width varies, pinch point
434	Westland Boulevard	Linden Avenue	Maiden Choice Lane	1a	Share the Rd/Bicycle Route Sign
438	Selford Rd	Rolling Rd/Gun Rd	Carville Avenue	3a	Shared bike/parking lane
440	S Rolling Rd	Bloomsbury Avenue	Gun Rd	1c	Share the Rd; Future widening
445	Mellor Avenue	Frederick Road	Bloomsbury Avenue	1a	Share the Rd/Bicycle Route Sign

**Map Key, Continued**  
**TARGETED IMPROVEMENTS IN CATONSVILLE –HALETHORPE AREA**

No.	Name	From	To	Type <sup>1</sup>	Comment
446	Magruder Avenue	Stanley Park Drive	Mellor Avenue	1a	Share the Rd/Bicycle Route Sign
447	Stanley Park Drive	Frederick Road	Magruder Avenue	1a	Share the Rd/Bicycle Route Sign
449	Hickory Drive	Asylum Lane	Wade Avenue	1a	Share the Rd/Bicycle Route Sign
450	Wade Avenue	Locust Avenue	Frederick Road	1a	Share the Rd/Bicycle Route Sign
451	Shady Nook Avenue	Frederick Road	Short Line Trail	1a	Share the Rd/Bicycle Route Sign
452	Prospect Avenue	Frederick Road	Short Line Trail	1a	Share the Rd/Bicycle Route Sign
453	Frederick Road	Baltimore City Line	Forest Drive	3b	SHA streetscape project from City to Bishops Ln; Consider parking on one side only
454	Frederick Road	Forest Dr	Rolling Road	3a	Existing shoulders marked as bike lanes
455	Edmondson Ridge Rd/Prospect Ave	Ridge Road	Frederick Road	1a	Share the Rd/Bicycle Route Sign
456	Ridge Road	Edmondson Avenue	Edmondson Ridge Road	1a	Share the Rd/Bicycle Route Sign
458	Winters Lane	Frederick Road	Trail Connector at Walden Mill	1a	Share the Rd/Bicycle Route Sign
459	Edmondson Avenue	Baltimore City Line	Harlem Lane	3a	Stripe shared bike/parking lane, interim bike route signage
460	Edmondson Avenue	Harlem Lane	Oakdale Avenue	3a	Shared bike/parking lane, narrow center turn lane if possible
461	Oakdale Avenue	Edmondson Avenue	Catonsville Park	1a	Share the Rd/Bicycle Route Sign
463	Old Frederick Road	Banneker Community Center	Dunbar Avenue	1a	Share the Rd/Bicycle Route Sign
527	Bloomsbury	Rolling Road	Mellor Ave	3a	Stripe shared bike/parking lane
677	Dunbar Avenue	Old Frederick Road	Catonsville Park	1a	Share the Rd/Bicycle Route Sign
684	Maiden Choice Ln	Wilkens Ave	Maiden Choice Med Ctr	3a	Stripe shared bike/parking lane
686	Rolling Road	Frederick Road	Bloomsbury Avenue	1c	Share the Rd/Bicycle Route Sign; future bike lane by widening
729	Altamont Ave/Blackeney Rd/Alley	Shady Nook	Short Line Path over Frederick Rd Bridge	1a	Share the Rd/Bicycle Route Sign
730	Oak St/Ash St	Asylum Ln	Valley Rd	1a	Share the Rd/Bicycle Route Sign

**SPOT IMPROVEMENT**

No.	Location	Improvement
1	Hilltop Circle and Poplar Ave	Bus shelter
2	Shelbourne Rd and Poplar Ave	Bus shelter
25	Harlem Ln and Maple Forest Rd	Ramp
26	Harlem Ln and Harlem Ln	Ramp
32	Edmondson Ave and Wesley Ave	Sidewalk
37	Across Frederick Road at Catonsville Library	Improved crosswalks
39	Catonsville HS at Rolling Rd	Improved crosswalks
42	UMBC loop	Remove rumble strips
53	CCBC Campus Drive	Replace inlet grates
54	Short Line and Maiden Choice Ln	Crosswalk, signage
57	S. Rolling Rd and Park	Crosswalk
58	Montrose Ave	Construct bike lane bypass around barrier

**1: Type Key**

- |                                       |                              |
|---------------------------------------|------------------------------|
| 1 = Sidewalk on One Side              | 3 = Existing Bike Lane       |
| 2 = Sidewalk on Both Sides            | 3a = Bike Lane by Striping   |
| 1a = Share the Road Signage           | 3b = Bike Lane by Restriping |
| 1c = Share the Road Signage, Advanced | 6b = Paved Shared Use Path   |



*Training programs for adults and children can be expanded in the county.*

## Education

Construction of bicycle and pedestrian facilities needs to be complemented by programming strategies to assist people in making the transition to walking and/or bicycling, after having become accustomed to getting around by automobile for many years. Furthermore, everyone, including motorists, needs education about safe practices, rules of the road, and access to safety information.

### Training Programs for Adults

The League of American Bicyclists (LAB) has developed a set of courses for children and adults covering safety skills, commuting, and motorist education, as well as a system of training and certifying instructors, who are then qualified to offer the training programs independently. In turn, these courses are often the model for programs offered by local and regional bicycling organizations, in adult education programs, and other settings. Education specific to bicycling includes safely sharing the road, traffic laws, proper roadway positioning, such as navigating intersections, and defensive bicycling.

The Community College of Baltimore County offers continuing education programs on walking and biking. Many of the county's senior centers offer programs and activities on walking including an annual fundraiser, a 5K run/walk. The Ateaze Senior Center in particular has an active "Cycling Seniors" affinity group offering a variety of rides at different levels of difficulty.

In the Baltimore region, the StreetSmart advertising program, sponsored by the Maryland Highway Safety Office and the Baltimore Metropolitan Council, delivers a variety of traffic safety messages through billboards, bus and transit advertisements, and television and radio spots to promote driver awareness, and safe walking and bicycling practices. As more area residents take up walking and bicycling, additional driver education and enforcement will become even more critical.

### Training Programs for Children and Youth

According to the White House Task Force on Child Obesity, only 13% of students rode a bike or walked to school in 2009, compared to 44% in 1969. The percentage of students riding a school bus has also declined and more students report coming to school by personal vehicle. Parents cite many barriers as why they do not encourage or allow their children to walk or bike to school, referencing distance to school, traffic-related danger, weather, safety, fear of crime, as well as school policies that prohibit walking and biking to school.

The Maryland State Highway Administration (SHA) has developed a Pedestrian and Bicycle Safety Education Program for elementary school-aged children. In Baltimore County, the training is sponsored



by the Baltimore County Police Department. The program supports various curriculum and learning objectives (focused on health, wellness, and safety) and is divided into two sections, a pedestrian safety program for kindergarten through second grade students and a bicycle safety program for third through fifth grade students, teaching skills that are essential to developing a basic understanding of pedestrian and bicycle safety.

At the request of the school principal, the police department arranges for a certified instructor to train the teachers who will deliver the program to the students. The SHA supplies the educational materials (including bicycles) necessary to conduct the course.

This program has been introduced to elementary schools through the school system physical education department and subsequent in-service training. At this time, 16-18 of the county's 107 public elementary schools have participated. The police department has also provided training to youth groups and one of the county's senior centers. Thus far, private schools have not participated in the program.

A federal program is available to local nonprofit groups and government agencies to promote safety education for students in grades K-8. "Safe Routes to School" can provide funding for educational programs and infrastructure improvements. Each state has a Safe Routes to School coordinator who oversees the program. In Maryland, the program is managed by SHA's Highway Safety Office.

## **Education Programming Recommendations**

1. Work with Baltimore County Public Schools to explore expanded pedestrian and bicycling safety education as a regular part of the curriculum at elementary, middle school and high school levels.
2. Offer pedestrian and bicycle safety and education programs through Recreation and Parks Councils, Senior Centers, health, and other organizations to children, youth and adults.
3. Ensure that education programs are made available to all demographic groups such as women, seniors, and ethnic groups.
4. Working with multiple partners, offer an annual sustainable transportation expo featuring pedestrian and bicycle educational materials and demonstrations.



## Encouragement

Research on behavior and physical activity finds that typically, many sedentary people have attempted but failed to maintain physical activity programs. It generally takes eight weeks of regular physical activity before people are able to build new fitness routines, habits, and behaviors, thereby adopting new long-term positive health behaviors. It has been found that the number of people regularly engaging in physical activity can be significantly increased through moderate amounts of social support, including the organization of peer groups, encouragement by email or occasional phone calls, or meetings with fitness counselors.

By creating a network of support and encouragement programs, it is possible for people to be successful at adopting active transportation behaviors. Existing community and recreation organizations and programming can be leveraged to create this network, by replicating successful programming models and offering them through other organizations, reaching a variety of audiences across the county.



An important encouragement program that has gained momentum nationwide is the Walk (and Bicycle) to School program, targeted to elementary school children. A number of county elementary schools have large numbers of children walking to school. One example is Stoneleigh Elementary School in Towson, which has had a parent-initiated Walk to School program for about five years. Many of the 624 students enrolled at Stoneleigh do walk to school. Collectively, the students' school-based walking totals about 14,000 miles in an average year.



*Encouragement programs such as community walks and group cycling rides can help motivate people to undertake regular walking and bicycling activities.*

One of the barriers to expanding walk to school efforts concerns the supply of available crossing guards. School crossing guards are managed by the police department, not by the school system. Funds to pay school crossing guards come from the police department budget. Because it is part-time work (10 hours/week) for relatively low wages, the department has a difficult time keeping the 273 required positions filled. For each empty position, sworn police officers fill in, diverting officers from patrol and other duties.

There are a variety of other types of encouragement programs in addition to Walk to School. Many organizations sponsor fun runs, walks, and bicycle rides. The WalkArlington program in Arlington County, Virginia sponsors neighborhood and community walking tours—sometimes the tour guides are locally elected officials and other notable members of the community.

BikeArlington's annual bicycle ride through Arlington and Alexandria (now expanded to and including DC, with co-sponsorship from the city), and the Baltimore City group rides "Tour dem Parks" and "Tour de Port" rides are examples of community cycling events.

The “Sunday Streets” pilot in Baltimore City, which closed part of Roland Avenue for 5 hours on Sunday October 25<sup>th</sup>, 2009, treating the street as a “public park” for walking, biking, running, etc., is an example of a community event focused on promoting fitness, active transportation, and sustainability. In Baltimore County, a 3-mile stretch of Loch Raven Drive along the Loch Raven Reservoir is shut down to vehicular traffic to allow for runners, bicyclists, walkers and roller-bladers to enjoy the natural setting.

Some parks and trails units such as the Heritage Rail Trail in York County, Pennsylvania, have organized “trail ambassador” programs to engage volunteers to assist park visitors with information and serve as “eyes” and “ears” on multi-user trails, and some ambassadors are trained and certified to perform repairs and provide first aid services. The Washington Area Bicycle Association and the Chicago Bicycle Federation, among others, have volunteer ambassadors who provide mentoring and advice for taking up bicycle commuting.

Some regional shopping centers offer indoor walking and fitness opportunities, at various times, including some times when the center might not be normally open. Many worksite employee assistance and commuting programs also provide assistance to employees considering alternative ways of commuting to work.

Bike sharing is a program that allows people to try out bicycling without having to make the investment in buying a bicycle. Bicycle sharing systems provide low cost access to bicycles, to support short, local trips, making for easier connections between transportation modes and to reduce the use of automobiles for short trips. Typically, systems are funded through a variety of means including institutional support and sponsorships, as well as membership fees.

Systems are best deployed in areas where activity centers are linked and there is a high level of residential and/or employment density. In the county, places like Towson, Owings Mills, White Marsh, and Catonsville-UBMC, may have conditions favorable to bicycle sharing.



*Bicycle sharing programs allow people to try out cycling without having to purchase a bicycle.*

## **Encouragement Programming Recommendations**

1. Work with community organizations, Recreation and Parks Councils, Senior Centers, and other stakeholders to organize walk and bicycle rides in neighborhoods, parks, and trails as a way for people to explore their communities and to experiment with active transportation.
2. Develop cross-community walking-bicycling events, covering areas larger than neighborhoods.
3. Consider organizing park and trail events around National Trails Day (first Saturday in June). More than 100 people



*Holding and publicizing events such as International Walk to School Day or an organized cycle race can raise interest in walking and bicycling.*

regularly participate in National Trails Day events at Patapsco Valley State Park. Events can be used to generate publicity and fundraising for Baltimore County trails efforts.

4. Develop ambassador programs to deliver programming that supports walking and bicycling. Ambassadors, mentors, and buddies can assist people in moving along a ladder of active transportation, from experimentation to regular walking and riding.
5. Work with local schools and PTAs to provide walk to school/ bike to school programs. Consider providing support to events and programs organized around international walk to school day during the first week of October.
6. Investigate alternates to address the need for additional school crossing guards, including grant funding and parent volunteers.
7. Work with campuses and business organizations so that they can support sustainable transportation by providing walking and bicycling encouragement programs to their staff and students.
8. Work with local gyms and fitness facilities to develop reduced-cost memberships for bicycle commuters by providing showers, lockers, and secured bicycle parking.
9. Encourage major employment centers in the county to participate in Bike to Work programs, including the regional Bike to Work Day. Currently, Towson is the only location in the county for Bike to Work Day participants.
10. Explore providing a college-based bicycle shop linked to a campus-based recreation center as a kind of combined bicycle station, providing showers, lockers, secured parking, and repair facilities for bicyclists.



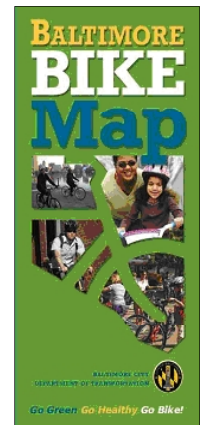
*A Bike to Work Day rally is held at the Towson Courthouse Plaza every year during Clean Commute Month.*

12. Provide an information system for college students (and faculty and staff) on sustainable transportation options, with material available in the college library, student union, student bookstores, and other key facilities on campuses. (E.g., the Portland State University Library, University of Washington Student Bookstore have extensive kiosks with local transit information.)
13. Encourage employer participation in the Bicycle Benefits ([www.bicyclebenefits.com](http://www.bicyclebenefits.com)) program, which provides incentives and rewards to cyclists participating in commuting programs, as well as federal transit/bicycle assistance programs such as the \$20/month benefit authorized by the Federal Bicycle Commuter Act.

## Communications and Media

It is important to create a comprehensive program for the production and delivery of information promoting active transportation. In large part this can be accomplished through the sharing of information products already being produced such as the *Bicycle Commuter Resource Guide* and the *Employer Guide to Bicycle Commuting* published by the Baltimore Metropolitan Council, *Safe Bicycling in Maryland* published by MDOT, and the Maryland State Bicycle Map.

In addition to printed or digital media, signage plays an important function in improving the bicycling experience. Effective signage heightens drivers' awareness of cyclists and promotes safety and offers information on direction and services, while at the same time promoting bicycling and encouraging people to take up cycling, and can serve as an identity and branding system for bicycling related programming. It can also identify points of interest by listing relevant activity centers, civic assets, and points along specific routes, as well as service locations such as rest areas and bicycle repair facilities.



## Communications Recommendations

1. Identify quality pedestrian and bicycle education materials and work to make them available within local education programs, on the web and as budget permits, in printed formats.
2. Work with Baltimore Metropolitan Council, MTA and other organizations to coordinate the production and distribution of information promoting active transportation. This could include the development of a regional tool for trip planning for walking and bicycling.



*Maps of bicycle routes and facilities provide helpful information to cyclists, when made available at convenient locations such as transit stops.*

3. Develop an outreach program to represent walking and bicycling programs at community events.
4. Provide county-wide maps of bicycle and walking facilities. Maps could list bicycle shops, information about safe walking and bicycling, and other information. Neighborhood and area maps can be created for areas with high potential for walking and bicycling and for Walk to School programs.
5. Work with tourism organizations to deliver bicycling maps and tour information. List bicycle tours online and produce printed maps/guides.



6. Public communications programs used to promote pedestrian, bicyclist, and driver safety (such as “Street Smart”) could be broadened to include messages promoting walking and bicycling. Municipal vehicles, bus shelters, etc. can be used to advertise walking and bicycling. Public libraries, parks, recreation centers, schools, and other public facilities are places where these materials can be distributed.



*Signage programs are extremely important in providing directions to destinations, and for making people (both cyclists and motorists) aware of the locations they can reach by bike.*

7. Develop and install a wayfinding signage program to provide information on routes, including directions, distance, transportation connections, and points of interests, while also serving as identity and branding system that promotes and markets bicycling as an active transportation mode. A means of contact (phone number, webpage URL) should be printed on the signs so that people can report problems or get more information.
8. Consider the development of a specific request and information webpage that allows pedestrians and bicyclists to ask questions and send requests for maintenance needs, suggestions for locations for bicycle rack installations, etc. BMC has a similar feature with regard to requests for bicycling and walking facilities.
9. Develop a coordinated program with MTA to create a sustainable transportation kiosk information program. Existing kiosks that provide information on transit could be expanded to provide information on walking and biking. The kiosk system could also be expanded to include additional locations.

## Economic and Business Development

The close proximity of walking and bicycling facilities, and in particular, shared use paths, offers an incentive to employees to use them before and after work, or during lunch, leading to a healthier

workforce. It makes the area an attractive and vibrant place to locate a business to the benefit of the whole community.

Local business organizations can also be encouraged to participate as “Friends of the Path” to help with construction or maintenance costs, and by sponsoring special events. The Owings Mills Roundtable provides a model in their willingness to participate in a public/private partnership with the county for the development of sites along the recently constructed Red Run Stream Valley Trail with benches and other amenities.

In addition to the economic benefits resulting from the location of bicycling and walking facilities within employment areas, bicycling can be a potentially significant component of retail business and tourism development strategies. Many Maryland counties promote bicycle-based tourism, publishing brochures with multiple routes covering various destinations and attractions. Carroll County, Caroline County, and Talbot County, among others, have such programs. A number of counties on the Delmarva Peninsula have created the “Great Delmarva Bicycle Trail” as a tourism effort, providing information on long-distance routes that link places across Delaware, Maryland, and Virginia.

An economic impact study of the Northern Central Railroad trail in Baltimore County, conducted in 1994, found that 264 jobs statewide are supported by the more than \$3.3 million of goods and services purchased in association with trail activities. The most recent study of the economic impact of the Heritage Rail Trail in York County, Pennsylvania (this trail connects to the NCR Trail), found that trail users spent an average of \$367/year on bicycle-related merchandise and accommodations as part of their trip.



*Bicycle touring can bring revenue into the county, and promote economic development in the form of bicycle shops, food service and accommodations.*

## **Business Promotion Recommendations**

1. Partner with the Owings Mills Roundtable and other business groups to develop and implement programs and facilities for walking and bicycling targeted to employees.
2. Assist the strengthening and development of bicycle shops and rental programs as an economic and business development initiative, by providing focused technical assistance and funding as part of existing business support programs.
3. Conduct a bike retailer roundtable to identify opportunities to increase bicycling. Retailers have an interest in improving the bicycling environment. Seek opportunities to collaborate on common goals that encourage bicycling.
4. Work with bicycle shops other entities to develop a commuter bicycling accessories kiosk program.

5. Support bicycle tourism efforts where practical. For example, it is possible to convert vacant restaurants and large buildings in Franklintown into bed & breakfasts and other facilities supporting tourism related to the Gwynns Falls Trail and bicycling in the Baltimore region.
6. Consider developing Bike Tours/Bike Racing in the county (perhaps in conjunction with Baltimore City and Carroll County, which actively promotes bicycle-based tourism and tours) as an economic development and promotional venture. One example is the Philadelphia International Bicycle Race centered on the Manayunk neighborhood. This one-day, 156 mile race draws thousands of visitors to the city.

## **Enforcement and Traffic Safety**

Creating a safe environment for walking and bicycling depends not only how facilities are designed, but also on how they are used. Traffic safety enforcement, coupled with engineering, education, and encouragement, is integral to traffic safety.

Enforcement efforts should be built upon community partnerships and education, and encourage safe and lawful travel by strategically targeting high-risk behavior and locations. Balancing traffic enforcement with safety education and encouragement efforts will improve road safety for pedestrians, bicyclists, and motorists.

Through accident data compiled by the traffic analysis personnel of the Baltimore County Police Department, as well as from the Maryland Highway Safety Office, priorities for additional traffic enforcement are set. An analysis that determines the primary factors contributing to pedestrian and bicycle crashes could lead to other types of engineering or education countermeasures. For example, an area experiencing a high rate of accidents may be due in part to the physical design of the roadway. Funding and capital improvement projects can be prioritized to address problematic situations.

Unfortunately, the analysis is hampered by the lack of timely crash data. Crash reports are submitted to the Maryland State Police, who compile and tabulate the data for the entire state. The data the county police department receives from the state is 18 months behind. There are currently plans to automate the process, which will improve the timeliness of the data, but it will likely be at least two years before this is complete.

Police officers are more likely to enforce laws they understand and acknowledge. All police officers should be trained on:



- Rules of the road for bicyclists
- Types of illegal motorist behaviors that endanger bicyclists
- Dangerous types of bicycling behaviors
- Common causes of bicycle crashes
- Importance of reporting bicycle crashes
- Importance of investigating serious bicycle crash sites
- Best ways to prevent bicycle theft
- Advantages to policing by bicycle
- Transportation, health, and environmental benefits of bicycling



As the amount of pedestrian and bicycling activity increases in Baltimore County, it will be important for police officers to become more familiar with relevant laws.

The Federal Highway Administration publishes two volumes, *Pedsafe: Pedestrian Safety Guide and Countermeasure Selection System* and *Bikesafe: Bicycle Countermeasure Selection System*, which provide solutions in response to common types of accidents, accompanied by software tools.



*Enforcement activities include ticketing violators, keeping records of pedestrian and cyclist-involved accidents, and initiating programs or roadway improvements to improve safety for all users of the road.*

## **Enforcement Recommendations**

1. Develop a coordinated accident analysis program designed to identify and correct problems that may lead to a disproportionate number of pedestrian and/or bicycling accidents. Participants could include the Traffic Analysis and Traffic Enforcement personnel from the police department, as well as other county and state agencies as appropriate.
2. Continue to increase enforcement activities at locations experiencing a disproportionately high number of pedestrian and/or bicycle crashes and injuries. Targeting enforcement at locations with more accidents is an effective use of limited enforcement resources.
3. Continue through enforcement activities to target those behaviors, including those of motorists as well as pedestrians and bicyclists, determined to be the greatest threats to pedestrian and bicyclist safety, such as mid-block crossing by pedestrians.
4. Develop continuing education opportunities for police officers on specific enforcement issues. Reach police officers in inexpensive and effective ways, such as screening videos at roll call and distributing Action Alerts, memorandums to police officers on specific enforcement issues.



## Evaluation and Planning (Implementation)

The fifth “E” of pedestrian and bicycle planning—evaluation and planning, concerns the systems that communities have in place to evaluate current programs and plan for the future. For Baltimore County, which is just at the beginning of initiating a comprehensive pedestrian and bicycle program with the adoption of its first county-wide plan, the fifth “E” covers the process of implementing the engineering, education, encouragement and enforcement recommendations of this plan, and as well as instituting a mechanism for evaluation and planning for future improvements.

Implementation of the Baltimore County Pedestrian and Bicycle Access Plan is dependent upon a comprehensive program of activities which include inter-agency coordination, capital and operational funding, amendments to existing ordinances and guidelines, adjustments to the development approval process, and the development or re-focussing of education, safety, and promotional programs.

## An Active Transportation Policy

According to a recent federal survey, one-quarter of all walking trips take place on roads without sidewalks or shoulders, and bike lanes are available for only about 5 percent of bicycle trips. Likely, this has resulted from design standards which, over the past 50 years as the interstate highway system and suburban road networks have been constructed, have prioritized the movement of motor vehicles, with an unbalanced transportation system as the result. Over the past 15 years, multi-modal roadway design philosophies have been evolving to better balance the speed and comfort demands of motor vehicles with both the needs of pedestrians, bicyclists, transit riders, and other users, and with demands and desires on the part of communities for roadways that fit more closely with land use context.

“Complete Streets” and “Context Sensitive Design” are design philosophies that have the same intent. Each promotes design values to rebalance the significance and role of streets within our communities so that they serve the needs of all transportation users. The concept is simple—each time a road is built or reconstructed, provide quality service for all transportation modes and types of users, in a manner that is sensitive and appropriate to the environment around it.

Homes and neighborhoods, schools, shopping, employment centers, recreation areas and other destinations should be connected by a

*A Complete Street policy would provide an appropriate level of accommodation and design for pedestrian, bicycle, transit and motor vehicle facilities in every county road improvement.*



network of Complete Streets, including facilities for walking, bicycling and transit. Ingredients of a Complete Street are dependent on context and may include sidewalks, bike lanes, wide paved shoulders, special bus lanes, comfortable and accessible transit stops, and accommodations making it easier to cross the street, etc.

Recently, the county has taken several steps toward improving the quality of the pedestrian and bicycling environment. The county's Master Plan 2020, adopted in October 2010, provides a framework for the development of walkable and bikeable communities. The county Public Works Design Manual includes updated standards for pedestrian and bicycle facilities, and stresses a Context Sensitive Design approach. In February 2011, the Baltimore County Council enacted the creation of a Pedestrian and Bicycle Advisory Committee composed of citizens and stakeholders to work with county agencies in the development of a comprehensive pedestrian and bicycle program.

## **Policies, Management and Oversight**

In order to ensure that pedestrian and bicycling improvements and programs can be delivered in an efficient and coordinated fashion, the following organizational support activities are proposed:

1. Along with the adoption of this plan by the Baltimore County Planning Board and the County Council, it is recommended that the council pass a resolution confirming the adoption of a Complete Streets policy to reinforce the county Public Works Design Manual. The resolution would set guiding principles and practices to be considered in transportation, parks, schools, and other capital projects and land use planning, so as to encourage walking, bicycling and transit use while promoting safe operations for all users.

2. Using existing staff resources, create an inter-agency bicycle and pedestrian work group to work with the Pedestrian and Bicycle Advisory Committee, overseeing the engineering, maintenance, programming and outreach efforts of the plan. The work group would coordinate activities of the Departments of Public Works, Planning, Recreation and Parks, Environmental Protection and Sustainability, Aging, and other appropriate agencies, including interaction with the Baltimore County Public Schools on walk and bike to school matters, and the Police Department on traffic safety education and enforcement.
3. Designate the chair of the inter-agency work group as the lead, or coordinator, of bicycle and pedestrian matters for Baltimore County, or alternatively, seek funding for a Bicycle and Pedestrian Coordinator through the federal Unified Planning Work Program administered by the Baltimore Metropolitan Council. A new bicycle/pedestrian coordinator position is dependent on obtaining grant funds that fully cover all expenses related to the position.
4. Through the joint participation of the advisory committee and inter-agency work group, prepare and maintain a six-year pedestrian and bicycle project implementation and funding plan for consideration during the annual review of the county's Capital Improvement Program. As part of this process, incorporate improvements into related CIP projects to the maximum extent feasible, maximize opportunities to tap non-county funding sources, and work with local community groups and adjoining property owners to fine tune project design. Timing of project implementation will depend on the availability of public funding.
5. Develop a standardized transportation protocol and checklist for walking, bicycling, and transit for use by appropriate government agencies in the evaluation of road projects and development proposals. Incorporate the standard checklist into the existing development review process to ensure that developers are not subject to an additional level of review.
6. Modify the process for creating community plans to include a "sustainable transportation" element as a standard section, covering walking, bicycling, and transit. This element should cover programming opportunities as well as facility recommendations. The community planning process provides an opportunity to further refine the recommendations of this plan.
7. Prepare amendments to the Baltimore County Zoning Regulations to require bicycle parking and other necessary accommodations.



*A community walkability audit can be performed to analyze existing conditions and recommend improvements.*

8. Revise the Baltimore County Code to address maintenance and liability issues concerning sidewalk easements.
9. Revise the Comprehensive Manual of Development Policies to directly address bicycle and pedestrian accommodations.
10. Develop and implement a policy requiring provision of bicycle parking at major county government buildings, schools, parks, recreation and community centers, libraries, senior centers, and health facilities, for both visitors and employees.
11. Review plans for the construction of county facilities for pedestrian and bicycle access, especially in siting decisions.
12. Design county overpasses, underpasses, interchanges, bridges and culverts to provide safe and convenient pedestrian and bicyclist accommodations.
13. Produce an annual report on the implementation status of the plan recommendations including facilities, education, encouragement, enforcement, planning, and management.
14. Evaluate and update the plan for pedestrian and bicycle access periodically.

## **Implementation of Construction Projects**

The priorities shown in this plan are a general guide, and should be adjusted as opportunities and constraints occur. If the opportunity to incorporate an improvement occurs through a private development project or a public road improvement project, it should be undertaken regardless of its priority. At the very least, accommodations should be made to provide the right-of-way and/or space for the facility, and paving if appropriate.

As discussed above, it is recommended that implementation of this plan be guided by the Pedestrian and Bicycle Advisory Committee working with an inter-agency work group. The committee will have the ability to recommend adjustments to the types of facility improvements, funding sources and scheduling as appropriate to meet community needs and to take advantage of opportunities to combine projects. In their considerations, the committee should include the recommendations of adopted local area community plans that provide a further refinement of pedestrian and bicycle improvement needs.

Prior to the implementation of any projects, a detailed review of the proposal with the citizens affected by the improvement will be undertaken by Baltimore County staff and/or the Pedestrian and Bicycle Advisory Committee. Also, before the implementation of any on-street bicycle facility project, the Baltimore County Department of

Public Works and the Maryland State Highway Administration, as appropriate, will evaluate the project to ensure that impacts to motorized traffic capacity and safety are not of concern. If there is a concern, the project may be postponed until the situation can be remedied.

### **Specific Recommendations for Shared Use Paths**

1. Seek grants to perform feasibility studies for shared use paths along stream valleys, develop plans and undertake construction.
2. To address concerns of various constituencies and the protection of natural resources and park facilities, it is recommended that Baltimore City DPW (Loch Raven Reservoir), the Maryland State DNR (Gunpowder Falls State Park), and the Baltimore County Department of Recreation and Parks (Cromwell Valley Park), join together in a combined planning process to produce a pedestrian/bicycle access (including mountain biking) management plan.
3. Working with local community groups, property owners and developers, produce management plans for proposed paths, covering security, maintenance and provision for transportational access during times when facilities may otherwise be closed. Encourage the formation of volunteer groups to assist with maintenance and security patrols.

### **Specific Recommendations for Pedestrian Facilities**

1. Sidewalk improvements can be requested by citizens through the petition process. For cost efficiency, the county usually includes construction or upgrading of curb and gutter, storm drainage, and road resurfacing into the project. However, in locations where only sidewalk is needed, the county should consider the option of constructing the sidewalk alone. Conversely, where the county upgrades street surfaces, storm drainage or curb and gutter, the project should include sidewalk where it is lacking and adequate right-of-way exists.
2. Sidewalk improvements should be of high quality design in accordance with the county development standards to the extent possible by providing an adequate buffer area between the walk and roadway, and incorporating street trees.
3. To eliminate gaps in the sidewalk network on state roads, sidewalk retrofit projects in accordance with the programmatic requirements of this SHA program should be actively initiated.

## **Specific Recommendations for On-street Bicycle Facilities**

1. Adopt and implement standards and practices for on-street bikeway maintenance, including snow removal as appropriate.
2. Incorporate accommodations for bicyclists into the design practices of the county Neighborhood Traffic Management Program (traffic calming).
3. Continue to replace storm sewer grates that pose safety hazards to bicyclists.
4. Further develop the concept of Signature Streets. Consider organizing a citizen design workshop to develop place-appropriate designs for individual roads/areas.
5. Work with MTA to provide supportive infrastructure at transit stops, including bike racks or lockers.
6. Develop a bicycling facilities mapping/database layer in GIS to map bicycle and pedestrian facilities for use in publications as well as to track implementation of the plan. Use an established set of common definitions and symbols so that the information can be shared with adjoining jurisdictions to create regional maps.
7. Explore the development and creation of a bicycle sharing program to serve various locations in Baltimore County.
8. Explore the development of bike stations. County defined growth areas and major employment centers would be likely areas to consider.
9. As a demonstration project, consider the inclusion of shower and changing facilities at major government facilities and centers, such as at the County Government Center in Towson.

## Evaluation and Reporting

Setting specific achievement targets will foster the realization of pedestrian and bicycling improvements. At the end of each year, a report should be prepared by inter-agency plan implementation committee on the progress in achieving the improvements as recommended in the Pedestrian and Bicycle Access Plan. The report should be presented to the Bicycle and Pedestrian Advisory Committee and the Planning Board. Below is a set of proposed target measurements, although specific numeric targets are not yet established.

1. ENGINEERING
  - a. Install/repair sidewalks (miles)
  - b. Install/sign/mark bike lanes and bike routes (miles of lanes/routes, number of signs)
  - c. Construct shared use paths (miles)
  - d. Install bike racks (number)
2. EDUCATION
  - a. Deliver the state pedestrian and bicycle training curriculum to all public elementary schools in Baltimore County (number of students trained)
  - b. Develop and deliver educational programs for middle schools and high schools (number of students trained)
  - c. Develop and deliver educational programs for adults (number of adults trained)
3. ENCOURAGEMENT
  - a. Increase the mode share of walking and bicycling as part of all trips. (5-year mode share percentage comparisons)
  - b. Directly engage pedestrians and cyclists in a variety of programs, with a focus on increasing the number of daily work, school, and shopping trips made on foot or by bicycle (number of programs and people participating)
  - c. Develop and deliver communication materials (amount of materials distributed; hits on webpage)
4. ENFORCEMENT/SAFETY
  - a. Conduct safety awareness programs for pedestrians, bicyclists and motorists (number of programs and people participating)
  - b. Reduce bike collision and pedestrian accident rate (annual comparison of accident rates; 5-year comparative analysis of accidents vs. change in number of trips)
5. EVALUATION/PLANNING
  - a. Establish benchmarks by which to measure progress.
  - b. Collect and report data on on-street bicycle and path usage.
  - c. Revise and update the county-wide plan periodically.



## Funding Sources and Strategies

The creation of a more complete transportation system is a considerable public investment that will result in sustainable mobility and significantly improve the quality of life in Baltimore County.

### Funding Sources

How quickly plan this plan can be implemented is largely contingent on the availability of funding. In the current economic climate, county funding for improvements is not available. Federal, state and private funding sources will be necessary.

1. *Federal funding.* Three federal programs, the Federal Transportation Enhancement Program, Congestion Mitigation and Air Quality Improvement Program, and the Transportation and Community System Preservation Program, could be significant sources of funding for sustainable transportation projects within Baltimore County. Other federal programs such as the Land and Water Conservation Fund and the National Recreational Trails Program can also be tapped for paths and recreation projects. The Maryland Highway Safety Program can be a source of funding for the development of new and innovative education and encouragement programs.

Each of these programs requires local matching funds, generally from 20% to 50% of the cost of the project. The match can be met with private funds, or in-kind donations.

2. *State funding.* In addition to their own planning efforts, state agencies endeavor to construct projects that are part of approved local and regional plans, although it can take many years to do so due to the large demand for projects across the state. Separately from federal programs which they also administer, the Maryland Department of Transportation has a variety of programs which fund bicycle and/or pedestrian improvements on state roads including the Retrofit Sidewalk Program, Community Enhancement and Safety, Streetscapes, Retrofit Bicycle Program, Bikeways Program, Bikeshare Program and the Primary/Secondary program. Baltimore County has been the recipient of many projects funded through these programs. The county should continue working with the Maryland Department of Transportation to have pedestrian and bicycle improvement projects that are eligible for state funding included in the Consolidated Transportation Program (CTP), which is the state's six-year capital budget for transportation projects.

The county should take an active role in seeking the 100% SHA funding available for sidewalk retrofit projects on state

roads within the plan area. The state requires that these projects must be locally initiated (by residents, community associations, the county government, etc.), with coordination of community participation by the Department of Public Works.

The county should also be active in requesting state funding for pedestrian and bicycle facility improvements through state bond bills by submitting requests for matching or non-matching funds during legislative sessions.

3. *Public/Private Partnerships.* The relationship that the county's Recreation and Parks Councils have with the county is a good example of partnerships. In county-owned recreation and park facilities, the programming offered is established, operated, funded, and delivered by the recreation councils, with the guidance and support of the Recreation and Parks Board and the Department of Recreation and Parks.

According to statistics maintained by the Department of Recreation and Parks, recreation and parks councils engaged over 76,000 volunteers who dedicated more than 1.7 million hours of service in FY 09. The councils raise approximately \$11-\$13 million annually to support public recreation programs.

Catonsville Rails to Trails (CRTT) is another good example of a public/private partnership. CRTT leases one trail from the Maryland Transit Administration which is open to the public and is developing another which it plans to turn over to the county.

NeighborSpace, a 501(c)(3) nonprofit land trust that receives some funding from the county, serves established neighborhoods in Baltimore County by acquiring land for small parks, gardens, and open space. This organization is a potential partner in creating shared use paths.

Public/private partnerships may be the best means of creating bicycle sharing systems and bicycle stations. Typically the operation of these systems can be covered through membership fees, rental fees, and other revenues, but the initial investment to create the system can't be fully recovered from operating revenues. By bringing together like-minded organizations such as health institutions, universities, large employers and business groups or foundations with county government through the local Revenue Authority or similar entity, such facilities can be created.

4. *Grant funding.* Nonprofit organizations working with the county in public/private partnerships are also eligible for grant funding from a variety of sources including state and federal programs and foundations. Catonsville Rails to Trails has received grants to construct and operate trails from individuals, businesses such as REI, and foundations.

## Funding Strategies

A number of other strategies should be undertaken to facilitate the implementation of the plan, such as the following:

1. Design plans for county projects should be created before construction funding is available. If the county has an inventory of “shovel-ready” projects, it would be able to tap unanticipated funding sources, such as the federal American Recovery and Reconstruction Act of 2009 and the merit-based grants program known as TIGER (Transportation Investments Generating Economic Recovery).
2. Developers should provide the sidewalks, shared use paths, sidepaths and on-street bicycle facilities recommended in this plan as part of the development process in three situations:
  - (a) Where the property to be developed or an adjoining road right-of-way includes the area recommended for an improvement by this plan, or other adopted plan;
  - (b) Where the improvement is required by the county’s road standards; or
  - (c) Where the developer provides offsite pedestrian and/or bicycle improvements as part of a public benefit.

If a waiver of the facility should be granted, the land area to accommodate future facility construction should be reserved, pregraded and free from impediments such as street trees, fences, signs, utility appurtenances, etc., and with appropriate public access rights recorded. The project’s storm water management facilities should be designed to manage the impact of the future paved area.

3. A program should be developed so that developers can pay a fee in lieu equal to the cost of constructing pedestrian or bicycle improvements when they are waived. The fee would be used to provide a future pedestrian or bicycle facility at the location, or to construct or improve similar facilities at another location in accordance with the county pedestrian and bicycle plan or other approved community plan. When a fee in lieu is paid, the amount should be designated for a specific improvement to allow facilities linking destinations to be completed in the shortest time frame possible.
4. Consideration should be given to allowing improvements recommended by this plan to serve as linear open spaces in accordance with county requirements for Local Open Space. This will allow for more efficient use of county and private financial resources, and will also provide an additional

incentive to developers to create a internal path network linking to other types of open space.

## **Appendices**

<b>A: Sample Survey: Walking and Biking in Western Baltimore County .....</b>	<b>88</b>
<b>B: Factors that Encourage/Discourage Walking and Bicycling .....</b>	<b>94</b>

# A: Sample Survey: Walking and Biking in Western Baltimore County

Name:

Address:

Zip code:

Email:

Gender  Male  Female

## Age

Under 18 years  18-29

30-40  41-59

60+

## Walking (on sidewalks)

### 1. Destination

Think of the primary place that you walk to, or would like to walk to. This should be a place where the pedestrian route is in need of some improvement. You can also consider trips made by other family members.

Destination: \_\_\_\_\_

### 2. How often do you walk?

Frequently

Seldom

Never

### 3. What is the primary purpose of your trip?

Exercise (e.g., jogging)

Recreational

To get to work

Shopping

Library/Other community facilities

To get to a bus/transit stop

Don't walk

Other \_\_\_\_\_

### 4. Would you walk more if pedestrian facilities were improved?

Yes

No

Prefer to drive

Not interested

Other \_\_\_\_\_

### 5. Problems with pavement conditions

Please identify problems that can be experienced while walking to reach these destinations.

No sidewalk, paths, or shoulders

Sidewalk not continuous (gaps)

Access by walking is restricted (gates, etc.)

- Limited buffer between walking area and the roadway
- Sidewalks/ramps broken or cracked
- Obstructions: poles, signs, dumpsters, etc.
- Obstructions: shrubbery, tree branches, etc.
- Inadequate lighting
- Lack of shade
- Puddles/inadequate drainage
- Walking surface too steep
- Drivers going in/out of driveways don't yield to pedestrians
- Other \_\_\_\_\_

**6. Problems while crossing the street**

- No crosswalk
- Crosswalk markings need to be repainted
- No curb ramps at intersection
- No pedestrian signal
- Traffic signals made pedestrians wait a long time or did not provide enough time to cross the street
- Road too wide to cross quickly and safely
- No medians/pedestrian islands
- Trees or plants blocked view of traffic
- Parked cars blocked view of traffic
- Puddles in crosswalk/at curb when it rains
- Other \_\_\_\_\_

**7. Problems at bus stops and transit stations**

- No sidewalk to get to the bus stop or station
- No "pad" to stand on while waiting for the bus
- No bench
- No bus shelter
- Bus shelter in need of repair
- No trash can (litter)
- Transit stop not maintained during inclement weather
- Do pedestrians entering/leaving buses conflict with cars, bicycles, or other pedestrians?
- Inadequate pavement markings
- Other \_\_\_\_\_

**8. Problems with the walking environment**

- High-speed vehicle traffic makes it feel unsafe
- Large vehicles (trucks, buses) make it feel unsafe
- Vehicles did not yield to people crossing the street
- Vehicles turning right conflict with people trying to cross the street
- Vehicles speeding to beat "red lights"
- Other \_\_\_\_\_

**9. Solutions**

Do you have other ideas for improvements such as street trees, wider sidewalks, crosswalks, decorative pavement, and other streetscape improvements that can create a better environment for walking? Please describe:

---



---

---

---

**10. Other comments and suggestions:**

---

---

---

---

## Bicycling on streets

### 11. Destination

Think of the primary place that you bicycle to/would like to bicycle, using the road network. This should be a place where the route is in need of some improvement. You can also consider trips made by other family members.

Destination: \_\_\_\_\_

### 12. How often do you bicycle?

- Frequently
- Seldom
- Never

### 13. Describe your level of experience

- Advanced, confident rider, comfortable bicycling in most traffic situations
- Intermediate rider, sometimes uncomfortable in traffic situations
- Beginner, prefers to ride separated from cars, on paths, trails, or side streets
- Other \_\_\_\_\_
- Don't bicycle

### 14. What is the primary purpose of your trip?

- Exercise (e.g., jogging)
- Recreational
- To get to work
- Shopping
- Library/Other community facilities
- To get to a bus/transit stop
- Other \_\_\_\_\_

**15. If you bicycle to get to work, what is the total round trip mileage: \_\_\_\_\_.**

### 16. About how far are you willing to bicycle on a single trip?

- short (1 – 3 miles)
- medium (3 - 10 miles)
- long (10+ miles)

### 17. Would you bicycle more if facilities were improved?

- Yes
- No
- Prefer to drive



- Not interested
- Other \_\_\_\_\_

**18. Physical problems encountered when cycling on-street**

- Pavement rough/potholes etc.
- Bicycle lane or paved shoulder not continuous
- No space for bicyclists to ride safely
- Difficult/limited space to cross bridges or tunnels
- Debris on roadway (glass, litter, etc.)
- Dangerous drain grates, utility covers, metal plates etc.
- Slippery surfaces when wet (i.e., bridges, road markings, etc.)
- Puddles/inadequate drainage in roadway
- Branches/shrubbery in the roadway
- Railroad track crossings
- Inadequate lighting
- No bicycle rack at final destination
- Other \_\_\_\_\_

**19. Traffic problems while cycling on-street**

- Heavy traffic
- Fast traffic
- Many large vehicles (trucks, buses, etc.)
- Vehicles passed too close for comfort
- Other \_\_\_\_\_

**20. Intersection problems while cycling on-street**

- Difficult intersections to get through while riding
- Conflicts with vehicles making left turns across the roadway
- Conflicts with vehicles making right turns while riding through the intersection
- Other \_\_\_\_\_

**21. Bicycle Parking**

- No place to safely and securely lock my bicycle at my final destination

**22. Solutions**

What are the most important bikeway improvements that would encourage you to ride by making it safer or easier?

- Marked bicycle lanes
- Continuous/wide shoulders
- Share the road signage/bicycle route signage
- Off-road paths
- Bicycle parking facilities (racks, etc.)
- Showers and lockers at work or school
- Other \_\_\_\_\_

**23. This question is intentionally left blank**

**24. Other comments and suggestions:**

---

---

---

---

---

## Using off-road trails

**25. Destination:** \_\_\_\_\_

**26. How often do you use this trail?**

- 3-5 times/week
- 1-2 times/week
- A couple times/month
- Once/month
- A few times/year
- First time

**27. What is your primary activity on the trail?**

- Walking/Hiking
- Jogging/Runner
- Rollerblading
- Biking
- Walking pet
- Horseback riding
- Cross country skiing
- Other \_\_\_\_\_

**28. Generally, when do you use the trail?**

- Weekdays
- Weekends

**29. At what time of day?**

- Morning
- Midday
- Afternoon
- Evening

**30. Do you use the trail?**

- By yourself
- With family
- With friends
- As part of an organized group or outing (e.g., hiking or bicycling club)

**31. On each visit, about how much time do you generally spend?**

- Less than 30 minutes
- 30 minutes to 1 hour
- 1-2 hours
- More than 2 hours

**32. Would you consider your use of the trail to be for ...?**

- Recreation/Fitness
- Transportation (commuting, errands)
- Other \_\_\_\_\_

**33. If you use the trail to bicycle to work, what is the total round trip mileage: \_\_\_\_\_.**

**34. Problems on off-road trails**

- Conflicts with other users. Please describe: \_\_\_\_\_
- Uneven surface
- Trail poorly maintained
- Trail ended abruptly
- Trail didn't go where I wanted to go
- Trail intersected with roads that were difficult to cross
- Trail was crowded
- Trail was unsafe because of sharp turns
- Trail was isolated, didn't feel safe
- Risky downhill/hilly route
- Trail was poorly lighted
- Trail hard to get to
- No maps, signs, or markings to help me find my way
- Limited hours/other restrictions
- Other \_\_\_\_\_

**35. How did you find out about the trail? (check all that apply)**

- Word of mouth
- Roadside signage
- Driving past
- Newspaper
- Parks Department
- Bicycle shop
- Brochure/map/guide
- Tourism information/Visitor Center
- Internet website
- Other \_\_\_\_\_

**36. Improvement suggestions**

- More trails
- Extend trail
- Restrooms/water fountains
- More trailside facilities
- Shade/Trees
- Transit connections
- More parking
- Other \_\_\_\_\_

**37. Other comments and suggestions:**

---

---

---

## **B: Factors that Encourage/Discourage Walking and Bicycling**

### **Encourage – Walking**

- Safe, well-maintained infrastructure
- More complete environments for walking
- Prioritize crossing improvements
- More multi-user trails
- Make sure that there is a connected network of sidewalks on major roads
- Restroom access and other amenities
- Community efforts and programming to encourage people to walk (i.e., walking clubs)
- Emergency communications devices on trails
- Encourage walk to school programs
- Special programs that close roads in favor of walking and biking (i.e., Loch Raven Reservoir on weekends)
- More traffic calming initiatives
- Focus on making communities walkable
- Safer walkways and crosswalks around schools
- Highlight historical landmarks as destinations
- Sponsor walk/run events
- Lighting
- Better maintenance of the environment
- Better conditions at bus stops
- More police presence
- Walking trails around recreation and community centers
- Signage for destinations and on trails

### **Discourage – Walking**

- Lack of sidewalks/gaps
- Deteriorated sidewalks in need of repair
- No buffers between pedestrians and cars
- Difficulty crossing intersections
- Heavy traffic – volume, speed, courtesy
- Overgrown vegetation
- Many places still don't have curb ramps
- Crosswalk signals still favor cars
- Many sidewalks are too narrow/need to be wider
- Snow removal does not include sidewalks
- Lack of sidewalk/road connections between neighborhoods make it hard to get places
- Need lighting at night in areas with transit stops, evening walking
- Crossing bridges and freeway ramps is difficult
- Need more crossing guards for walking to school
- Bicyclists on sidewalks can be a problem for pedestrians
- Pedestrian-car interaction at street crossings and driveways
- Tree root upthrust on sidewalks
- Sometimes bike racks encroach into walkways
- Grade issues/watershed/drainage/lack of right of way make building sidewalks difficult in some areas
- More roads ought to have medians and boulevards to make conditions better for walking
- Lack of public squares and destinations for walking
- Lack of amenities (trees, benches, etc.)

## **Encourage – Bicycling**

- Safe, well-maintained infrastructure
- More bike trails
- Bike parking
- Bike sharing systems
- More bike lanes
- More connections and routes
- More signage and road markings
- Build community awareness
- Wider roads and shoulders
- Cleaner shoulders
- Less parking on streets, more bike lanes
- Connections to Baltimore City
- Restrooms and other facilities
- Incentives to get people started
- Awareness and education training and promotion
- Better access to town centers
- Maps in all forms (printed, online, phone applications)
- Bike hooks on light rail and subway cars
- More cyclists increases motorist awareness
- When repairing streets, create bike lanes at the same time
- Handrails at intersections
- Snow removal on trails
- Coordination across jurisdictions to create continuous facilities
- More protected bike parking overnight at transit stations
- Sponsor neighborhood bicycle events

## **Discourage – Bicycling**

- No bike lanes/limited facilities
- Discontinuous shoulders
- High traffic volume
- Speeding traffic
- Drivers often show little respect for bicyclists
- Potholes
- Debris on the side of the road/sidewalk
- Slotted storm drains that catch bicycle wheels
- Narrow roads for biking
- Blind spots and hilly terrain
- Snow removal does not include road shoulders
- Distracted drivers
- Facilities don't connect
- Crossing roads when on trails
- Major highways are crossing barriers for bicyclists
- Few long distance connections for bicyclists
- Need signage
- Cars park in bike lanes
- Drivers don't know cyclists have rights to use the road
- No bicycle racks

## **Western Baltimore County Pedestrian and Bicycle Advisory Committee**

**Ray Bahr**, Catonsville Rails to Trails

**Barry Blank**, Pikesville Greenspring Community Coalition

**Jeffrey Budnitz**, Ruxton-Riderwood-Lake Roland Improvement Association

**Mary Concannon**, Nutrition Extension Educator, University of Maryland Extension Baltimore County

**Mary Davidson**, Pedestrian and Bicycle Coordinator, Maryland State Highway Administration

**Linda Forsyth**, representing Senator Delores Kelley, Maryland State Senate

**Bruce Galanter**, Reisterstown Owings Mills Glyndon Coordinating Council (May-June)

**Derrick 'DeJay' Jones**, Reisterstown Owings Mills Glyndon Coordinating Council (January-March)

**James Kelly**, representing Councilman McIntire

**Kerri Lastner**, President, Graystone Community Association

**Jack Lattimore**, President, Franklinton Community Association

**Terry Maxwell**, Maryland Byways/Recreational Trails, Maryland State Highway Administration

**Dan Reagle**, Environmental Planning, Maryland Transit Administration

**Debbie Risper**, representing Councilman Oliver

**Eric Rockel**, Greater Timonium Community Council

**Ellen Spokes**, Sudbrook Park Community Association

**Eric Tombs**, Traffic Management, Maryland State Highway Administration

**Wendy Wolcott**, Chief, Engineering Systems Design Team, Maryland State Highway Administration

### County Staff

**Tony Baysmore**, Western Sector Coordinator, Office of Community Conservation

**Jessie Bialek**, Third District Community Planner, Department of Planning

**David Green**, Fourth District Community Planner, Department of Planning

**Linda Grossman, MD**, Department of Health (May-June)

**Ray Heil**, Streetscape Coordinator, Office of Community Conservation

**Diana Itter**, Second District Community Planner, Department of Planning

**Ernest Lehr**, Traffic Safety Education, Baltimore County Police Department

**Jeff Mayhew**, Chief, Community Planning, Department of Planning

**Patrick McDougall**, Planner, Department of Recreation and Parks

**Corporal Chuck Schruhl**, Traffic Enforcement, Baltimore County Police Department

**Steve Weber**, Traffic Engineering, Department of Public Works

**Dennis Wertz**, First District Community Planner, Department of Planning

**Ralph Wheeler**, Highway Design, Department of Public Works

**Darrell Wiles**, Chief, Traffic Engineering and Transportation Planning, Department of Public Works

**Officer David Wiseman**, Traffic Enforcement, Baltimore County Police Department

### Project Staff

**Kathy Schlabach**, Chief, Strategic Planning, Department of Planning

**Richard Layman**, Project Manager, Department of Planning

**Bineeta Sihota**, GIS Analyst, Department of Planning



**Baltimore County**  
**Department of Planning**

The Jefferson Building  
105 W. Chesapeake Avenue, Suite 101  
Towson, Maryland 21204

*<http://www.baltimorecountymd.gov/planning>*