



## **Section 1: Executive Summary**

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Bicycling and walking are popular activities in Anne Arundel County both for transportation and recreation. There are places in the County where walking and bicycling are pleasant and enjoyable activities. The Governor's Smart Growth Initiative has resulted in communities with well-designed sidewalks, multi-use trails, comfortable streetscapes and destinations that are close to home.

In many places, however, travel by foot and bicycle is difficult. Destinations are often separated by major highways and thoroughfares, leaving people with no choice but to drive to every destination. Parents who grew up walking or riding their bikes to school and around their neighborhoods are afraid to let their children do the same today, and with good reason. In 2000, an average of four pedestrians per week were injured or killed by automobiles in Anne Arundel County<sup>1</sup>.



(BWI Trail)

Anne Arundel County is in the process of establishing an outstanding network of off-road trails, several of which are already used as alternative transportation routes by residents and visitors to the County. However, there are limited opportunities to access these trails via local streets and roadways. In order to achieve a multi-faceted transportation network with a variety of opportunities for bicycle and pedestrian travel, physical improvements are needed to existing and future roadways throughout the County.

In addition to physical improvements, the bicycle program in Anne Arundel County must include other programs that support and encourage bicycling and walking. More County residents can be encouraged to bicycle and walk for short trips, especially those that are less than 2 miles in length (which accounts for over 40% of all trips in the County). As

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<sup>1</sup> Anne Arundel County 2000 Bicycle-Vehicle Crash Report



new bike lanes and sidewalks are built throughout Anne Arundel County, additional education and enforcement programs will be needed as well.

Continued efforts must be made now to ensure that bicyclists and pedestrians will be able to use the future roadway network throughout Anne Arundel County. The County is not alone in this initiative. There is growing support for bicycling and walking at the state and federal levels as well. The Maryland Department of Transportation (MDOT) has begun a number of new initiatives to fund bicycle and pedestrian improvements to transit facilities and roadways, and the U.S. Congress has been providing a consistent source of funding for these activities for the past ten years.

There are a variety of reasons bicycling and walking issues are important to Anne Arundel County residents:

## **1.1 Bicycling and Walking Benefits**

### ***Economic Benefits***

**Developing trails, bikeways and walkable communities makes good economic sense for Anne Arundel County.**

- Businesses tend to invest more in locations that have a high quality of life, and corporate employers have an easier time attracting good workers to these locations. Anne Arundel County's future as a first class employment location will depend on its perception as a high quality place to live.
- Bicycle tourism is big business in the United States, bringing millions of dollars in revenue to some parts of the country. For example, in Vermont, bicycle touring brings in more revenue than the maple syrup industry. Anne Arundel County has already gained national recognition for trails such as the Baltimore and Annapolis Trail and the BWI Trail. The East Coast Greenway (the urban equivalent of the Appalachian Trail) and the American Discovery Trail (the nation's major east-west route) will one day intersect in Anne Arundel County. It is clear that bicycle tourism should become a key feature of the region's future tourism strategy.
- A 1994 study of the Northern Central Rail Trail in Baltimore County indicated that \$3.4 million in goods were purchased in 1993 because of the trail. Additionally, the study indicated that the trail supports an estimated 264 jobs.

### ***Transportation Benefits***

**Bicycling and walking are a necessary part of the transportation system in Anne Arundel County.**

- Bicycle and pedestrian facilities are needed to form important connections between activity centers, population centers, shopping areas, parks and tourist attractions in the region.
- Many people in Anne Arundel County need an alternative method of travel to the automobile. A 1993 survey conducted by the Baltimore Metropolitan Council



- found that 17% of households in the Baltimore region had either no licensed drivers or no vehicles. Bicycling is an extremely affordable option when compared to the expense of owning and operating an automobile (\$120 per year compared to over \$5,000 per year).
- According to drivers license records, approximately one third of Maryland's population does not have a driver's license. Based on a population of 5.2 million, 1.8 million Maryland residents must rely on alternative modes of transportation. Many of these are seniors and children who need transportation alternatives.
  - The 1993 Baltimore Metropolitan Council household survey found that while bicycling and walking account for 13 percent of all trips and 3.9 percent of commuting trips, the potential to use these modes is far greater. Sixty-three percent of all trips in the region were found to be less than five miles, and 44 percent were less than three miles – many of these short trips could be made on foot or bicycle.
  - According to a survey conducted as part of the 1998 Baltimore Regional Transportation Plan, 61% of respondents indicated that they would walk or ride a bicycle to work or for other errands if it was safe and convenient.

## ***Environmental Benefits***

### **More greenways and increased levels of bicycling and walking will help to improve air and water quality in Anne Arundel County**

- Anne Arundel County is classified as a severe non-attainment area for ground level ozone by the U.S. Environmental Protection Agency. This means air quality in the County is below federal health-based standards for clean air. Motor vehicle pollution is a major contributor to ozone pollution.
- Increased levels of bicycling and walking can play an important role in reducing air pollution: By substituting a bicycling or walking trip for short auto trips, area residents can significantly reduce the amounts of pollutants generated by automobiles. Shorter auto trips produce far more pollution per mile than longer trips.
- Trails and greenways<sup>2</sup> can serve a dual purpose of offering an alternative transportation route while also preserving critical open space corridors in urban and suburban areas. Greenways filter stormwater run-off, remove pollutants from the air, and provide migratory routes for animal species.
- More bicycling and walking (and less driving) will mean better air quality and fewer non-point source pollutants in Anne Arundel County, which will help to improve the health of the Chesapeake Bay.

## ***Recreation and Health Benefits***

### **Bicycling and walking can play a vital role in improving the health of Anne Arundel County area residents.**

- Research conducted in 1999 by the Centers for Disease Control found that “obesity and overweight are linked to the nation’s number one killer – heart disease – as well as diabetes and other chronic conditions.” The report also

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<sup>2</sup> Greenways are protected corridors of open space that sometimes include trails.



states that one reason for Americans' sedentary lifestyle is that "walking and cycling have been replaced by automobile travel for all but the shortest distances." (October 1999 issue of the JAMA - Journal of the American Medical Association).

- In Maryland, the prevalence of obesity increased by 75.6% between 1991 and 1998, the fourth highest increase in the nation. By 1998, 20.5 % of adults in Maryland were obese. (Maryland Department of Health and Mental Hygiene, 1999).
- Total costs attributed to obesity (medical costs and lost productivity) amounted to an estimated \$99 billion in 1995, 10% of total national health care costs.
- Studies have shown tremendous health benefits for even a brief amount of light exercise (such as walking) each day.

### **Quality-of-Life Benefits**

Providing a livable community is a necessary part of attracting and keeping businesses, keeping our best and brightest young people here at home, and ensuring that Anne Arundel County remains competitive in the 21<sup>st</sup> century. Bicycling and walking are integral to the image of Anne Arundel County as a friendly and welcoming community.

### **1.2 Summary of Recommendations**

The Anne Arundel County Pedestrian and Bicycle Master Plan provides recommendations for specific actions, responsibilities, policies and procedures for future bicycle and pedestrian projects. The following are brief descriptions of each recommendation.

#### Recommendation 1:

**Build for success – begin construction of key on-road bicycle and pedestrian projects throughout the county.**

In order for Anne Arundel County to make this Plan a success, a variety of bicycle and pedestrian projects must be designed and built. The efforts to implement these improvements will require additional coordination between the County and SHA District Offices. In addition to the County's ongoing sidewalk construction projects, the following goals have been set for pedestrian and bicycle facility construction:

<i>Type of improvement</i>	<i>During Years 1-5</i>	<i>During Years 6-10</i>	<i>During Years 11-15</i>	<i>Total Years 1-15</i>
<i>Bike Lanes/Shoulders</i>	20 miles (4mi./yr.)	+75 miles (+15 mi./yr.)	+120 miles (+24 mi./yr.)	+215 miles
<i>Pedestrian Safe Intersections<sup>1</sup></i>	40 intersections (8./yr.)	+60 intersections (+12./yr.)	+60 intersections (+12./yr.)	+160 intersections

<sup>1</sup> There are many intersections in the County with dangerous conditions for pedestrians. These will require special studies either in conjunction with roadway improvement projects or as independent projects to determine better design treatments for pedestrians.



This plan includes seven corridor studies that provide conceptual bicycle and pedestrian improvements that can be made to specific streets and intersections in Anne Arundel County. These example locations were chosen based on public input – both in the form of comments received during the planning process and recommendations in Small Area Plans. Corridor plan locations were also chosen in locations in which there are obvious origin and destination points in close proximity (i.e. walking or bicycling distance) to each other. These corridor plans serve as example projects that can be completed in a short time frame at relatively low cost.

Recommendation 2:

**Build on the success of the trails program in Anne Arundel County – increase access to off-road trails.**

Anne Arundel County's existing trail network is one of the best in the country. We also have tremendous opportunities: Anne Arundel County is at the crossroads of the American Discovery Trail and the East Coast Greenway. The trails network should be expanded throughout the County, particularly in areas that are more heavily populated or are under development pressure. An expanded trail network will provide viable transportation alternatives and enhance recreational opportunities in the County.

Recommendation 3:

**Integrate bicycling and walking as a standard part of each new development and transportation project.**

Anne Arundel County residents have made it clear that they want communities where bicycling and walking are comfortable and convenient transportation options. This will require substantial changes to current policies and practices, both on the part of County and state agencies with jurisdiction over transportation facilities in the County. Section 6 provides more detailed recommendations for this strategy.

Recommendation 4:

**Establish new sources of funding for pedestrian and bicycle improvements.**

The most common method for funding bicycle and pedestrian projects is to combine local, public sector and private sector funds with funds from state, federal and other organizations. Many communities involved with bicycle, pedestrian and greenway implementation projects are choosing to leverage local money as a match for outside funding sources – something Anne Arundel County has done successfully in the past, and can improve upon in the future. Anne Arundel County needs to actively pursue innovative ways to obtain funding for pedestrian and bicycle improvement projects. Section 8 of this report provides detailed recommendations for funding the projects and activities identified in this Plan.

Recommendation 5:

**Provide increased opportunities for children and adults to become more educated on safe riding and walking behaviors.**

Education and awareness efforts are key ingredients to building a transportation system and community that encourages bicycling and walking. Education and awareness efforts also contribute to making the two modes safer and more enjoyable. In order to



continue to improve the overall physical network, effective support and education programs need to be developed. Section 7 of this Plan provides a compendium of model education and safety programs that should be considered for implementation in Anne Arundel County.

Recommendation 6:

**Create an organizational structure within the County to implement bicycle and pedestrian programs and projects.**

It will be necessary to assign staff members to implement the recommendations set forward in this Plan. A staff liaison within the Department of Public Works should be assigned to work closely with an inter-agency Pedestrian and Bicycle Workgroup to oversee various implementation activities, including the pedestrian and bicycle components of roadway improvement projects. This person should also be designated as the public point of contact on bicycle and pedestrian issues. Staff from other departments (including Planning and Zoning, Recreation and Parks, and others as appropriate) should be assigned implementation responsibilities through the DPW/OPZ work program.

The Pedestrian and Bicycle Workgroup will serve to coordinate the variety of programs and activities that result from this Plan. The Workgroup should work with designated county staff members to establish a volunteer program for a variety of education and promotional events.

## ***Conclusion***

Communities across America are supporting bicycling and walking in order to improve their physical infrastructure and quality of life. Anne Arundel County also recognizes this need to improve conditions for bicycling and walking in order to enhance its communities. The Anne Arundel County Pedestrian and Bicycle Master Plan establishes new goals for the County's transportation system, and will serve as a blueprint to improve the walking and bicycling environment for many years to come. In summary, a successful system will be accomplished by implementing the actions that are identified in this report. Specifically:

1. Construction of key on-road bicycle and pedestrian projects throughout the county.
2. Increased access to Anne Arundel County's growing system of off-road trails.
3. Integration of bicycling and walking as a standard part of each new development and transportation project.
4. Establishment of new funding sources for pedestrian and bicycle improvements.
5. Increased opportunities for children and adults to become more educated on safe riding and walking behaviors.
6. Creation of an organizational structure within the County to implement bicycle and pedestrian programs and projects.

Finally, as bicycle and pedestrian facilities and programs are put in place, it will be necessary to update this Master Plan on a regular basis to assess progress and establish new priorities.