TPB 6/21/2006 Item #12

# **Bicycle and Pedestrian Plan** for the National Capital Region

# DRAFT

June 15, 2006

# CREDITS

# **Technical Oversight**

Bicycle and Pedestrian Subcommittee Of the TPB Technical Committee

# **Director, Department of Transportation Planning**

Ronald F. Kirby

# **Chief, Program Coordination**

Gerald K. Miller

# **Report Authors**

Michael J. Farrell Andrew Meese

## Contributors

Andrew Austin Wendy Klancher Jim Sebastian

#### CREDITS

# OUTLINE/TABLE OF CONTENTS

# EXECUTIVE SUMMARY

## INTRODUCTION

## 1. PLANNING CONTEXT

А.	Overview	1-1
B.	Transportation Vision of the Transportation Planning Board	1-1
C.	TPB Actions to Encourage Walking and Bicycling	1-3
D.	TCSP Reports	1-3
E.	Federal and State Policies	1-5
F.	Americans with Disabilities Act	1-6
G.	SAFETEA-LU	1-7
H.	Safe Routes to School	1-7
I.	Constrained Long-Range Plan	1-8
J.	Transportation Improvement Program	1-8
K.	Local Bicycle and Pedestrian Plans Summary Table	1-10
L.	Local Bicycle and Pedestrian Planning Staffing Table	1-11
M.	Priority Unfunded Bicycle and Pedestrian Projects	1-12
N.	Regional Bicycle Plans	1-14
0.	Sources of the Regional Plan Projects	1-14
P.	Outlook	1-15

# 2. BICYCLING AND WALKING IN THE WASHINGTON REGION

A.	Overview	
B.	Jurisdictional Trends according to the US Census	
C.	Mode Share by Census Tract	
D.	Bicycling in the Metro Core	
E.	Demographics of Pedestrian and Bicycle Commuters	
F.	Commute Trip Distances	
G.	Non-work trips	
H.	Walking and Bicycling to Transit	
I.	Outlook	
J.	Data Sources	

#### 3. PEDESTRIAN AND BICYCLE SAFETY

A.	Overview	3-1	1
----	----------	-----	---

# OUTLINE/TABLE OF CONTENTS

В.	Scope of the Problem	
	Distribution of Fatalities and Injuries by Jurisdiction	
D.	Factors Contributing to Pedestrian and Bicycle Crashes	
E.	Legal Status of Pedestrians and Bicyclists	
	Street Smart Pedestrian and Bicycle Safety Campaign	
	Evaluation Results	
H.	Outlook	

# 4. EXISTING FACILITIES FOR BICYCLISTS AND PEDESTRIANS

Overview	
Shared-Use Paths	
Side-Paths	
Bicycle Lanes	
Dual Facilities	
Signed Bicycle Routes	
Long-distance Bicycle Routes	
Exclusive Bus/Bike Lanes	
Bridges	
Bicycles and Public Transit	
Pedestrian Access to Transit	
Outlook	
	Shared-Use Paths Side-Paths Bicycle Lanes Dual Facilities Signed Bicycle Routes Long-distance Bicycle Routes Exclusive Bus/Bike Lanes Bridges Bicycles and Public Transit Pedestrian Access to Transit

# 5. BEST PRACTICES

## 6. THE 2030 BICYCLE AND PEDESTRIAN NETWORK

А.	Regional Bicycle and Pedestrian Network in 2030
B.	Cost Estimates
C.	Explanation of Project Listings
D.	Maps

## APPENDIX:

- A. 2006 Plan Bicycle and Pedestrian Projects
- B. Project Database Data Dictionary and Sample Database Entry Form
- C. Bicycle and Pedestrian Projects in the CLRP
- D. Bicycle and Pedestrian Projects in the TIP

- E. Completed projects from the 1995 Bicycle Plan
- F. Metro Core Cordon Counts
- G. Table 2-10: Origin Station Sorted by % Walk Mode of Access
- H. Table 2-11: Origin Station Sorted by % Bike Mode of Access
- I. Table 3-1: Bike racks and lockers at Metro Stations
- J. Links and Resources\*
- K. Glossary
- L. Glossary of Acronyms
- M. Priorities 2000 Projects
- N. Bibliography\*

## MAPS

1.	Figure 2-1:	Bike to Work by Census Tract	2-5
2.	Figure 2-2:	Bike to Work by Census Tract with Bike Routes, Inner Region	2-6
3.	Figure 2-3:	Walk to Work by Census Tract	2-7
4.	Figure 2-4:	Walk to Work by Census Tract, Inner Region	2-8
5.	Figure 6-1:	Major Bicycle and Pedestrian Projects	6-6
6.	Figure 6-2:	Major B/P Projects in the Central Washington Region	6-7
7.	Figure 6-3:	Major Bicycle and Pedestrian Projects included in the CLRP	6-8
8.	Figure 6-4:	Major B/P Projects in central Washington included in the CLRP.	6-9

\* To be added later

# **Executive Summary**

# Overview

The *Bicycle and Pedestrian Plan for the National Capital Region* identifies the capital improvements, studies, actions, and strategies that the region proposes to carry out by 2030 for major bicycle and pedestrian facilities. The National Capital Region Transportation Planning Board (TPB), made up of governments and agencies from around metropolitan Washington, has developed this plan with the support of its Bicycle and Pedestrian Subcommittee. The plan builds upon the TPB's 1998 *Vision* to guide the region's transportation investments into the 21st Century. This is the first all-new regional plan specifically for bicycle facilities since 1995, and represents the first-ever regional pedestrian facilities plan.

In addition to building upon the TPB Vision, the Bicycle and Pedestrian Plan for the National Capital Region draws on and has been shaped by a number of regional, state, and local policy statements, plans, and studies. These include the TPB's Transportation and Community and System Preservation greenways and circulation systems reports (published in 2000); the TPB's regularly updated Constrained Long Range Plan (CLRP) and Transportation Improvement Program (TIP); federal and state guidance on bicycle and pedestrian facilities; and a wealth of state and local bicycle and pedestrian plans from around the region.

The *Bicycle and Pedestrian Plan for the National Capital Region* is intended to be advisory to the CLRP and TIPs, and to stand as a resource for planners and the public. In contrast to the CLRP, the *Bicycle and Pedestrian Plan* includes both funded and unfunded projects – projects in this plan may not yet have funding identified to support their implementation.

## **Planning Context**

A number of federal, state, and local activities, as noted above, provide the planning context (Chapter 1) for this document. Jurisdictions and agencies around the region maintain active bicycle and pedestrian planning and coordination programs. Within this context, the TPB incorporates bicycle and pedestrian considerations into overall regional transportation, in the CLRP as well as the bike-to-work components of the Commuter Connections program and the region's Access for All Committee concerning minority, low-income, and disabled communities. The TPB supports bicycling and walking and its health, community, pollution reduction, and congestion reduction benefits for the region.

## Bicycling and Walking in the National Capital Region

The state of bicycling and walking in the Washington region (Chapter 2) includes success stories, challenges, and opportunities for improvement. Data from the U.S. Census, surveys, and

other sources provide an understanding of where bicycling and walking are taking place and by whom. These data may point to opportunities for increasing these activities, and support the need to consider bicycling in walking in overall roadway and transit planning and engineering.

# Safety

Bicycle and pedestrian safety (Chapter 3) is a key challenge for the region. The plan describes the scope of the safety problem, its geographic and demographic distribution across the region, and the legal rights and responsibilities of drivers, pedestrians, and bicyclists. Unfortunately, bicycle and pedestrian safety issues are found throughout the region. The region and member agencies are actively pursuing a number of engineering, enforcement, and educational strategies to reduce deaths and injuries.

# **Existing Facilities**

The Washington region benefits from a number of popular bicycle and pedestrian facilities in place in our communities (Chapter 4). The region's transit agencies have also worked to provide access and accommodation of bicycling and walking to and on their systems. A goal of this plan is to complement and augment the existing system of facilities.

# Planned Bicycle and Pedestrian Facilities and Improvements

Improvements included on the plan's list of regional bicycle and pedestrian projects (overview in Chapter 6 and the full listing in Appendix A) were identified and submitted and reviewed by agency staffs of TPB member jurisdictions. The plan includes approximately 400 bicycle and pedestrian facility improvement projects from across the region. If every project in the plan were implemented, in 2030 the region will have added over 200 miles of bicycle lanes, over 400 miles of shared-use paths, hundreds of miles of signed bicycle routes (signage without additional construction), more than 50 pedestrian intersection improvements, and a number of pedestrian/bicycle bridges or tunnels. Two new bicycle and pedestrian crossings over the Potomac would be created, at the American Legion and Woodrow Wilson Bridges, and bridges over the Anacostia River would be improve pedestrian and bicycle access and amenities in Ballston, Bethesda, Clifton, Haymarket, Manassas, Tysons Corner and other locations.

# Costs

Total estimated cost of projects in the draft plan is about \$530 million (2006 dollars). 30% of the plan projects have specific agency-submitted cost estimates, totaling about \$190 million of the \$580 million. About \$110 million of the \$190 million is for projects included in the CLRP. For the remaining 70% of draft plan listings project-specific cost estimates were not available. Total estimated cost for projects without an agency-submitted estimate was imputed on a mileage and project type basis at about \$340 million of the \$530 million. Cost estimates should be considered as order-of-magnitude and in most cases do not reflect engineering-level estimates

## **Best Practices**

Convenient and safe bicycle and pedestrian access is a key goal of the TPB's *Vision*. To help achieve this, the Bicycle and Pedestrian Subcommittee developed a set of recommended best practices (Chapter 5) for the design and implementation of bicycle and pedestrian facilities, as well as for the incorporation of bicycling and walking considerations into overall roadway and transit design. Best practices are based upon national and state laws and guidelines.

## **On-Line Resources**

Development of the *Bicycle and Pedestrian Plan for the National Capital Region* has benefited from an on-line plan project database, a resource separate from the printed document. For the first time, Bicycle and Pedestrian Subcommittee members were able to view, enter, and edit their project listings on-line. This on-line database will facilitate keeping the regional list accurate and up-to-date, and will facilitate integration of information from this plan into the region's *Constrained Long-Range Plan* and Transportation Improvement Program as necessary. An on-line version of this plan also will be maintained for public access on the TPB's Web site at www.mwcog.org/transportation.

# Outlook

Overall, the TPB's *Vision* calls for convenient, safe bicycle and pedestrian access, walkability in regional activity centers and the urban core, reduced reliance on the automobile, increased walking and bicycling overall, inclusion of bicycle and pedestrian facilities in new transportation projects and improvements, and implementation of a regional bicycle and pedestrian plan. The *Bicycle and Pedestrian Plan for the National Capital Region* provides a blueprint for progress on these issues and for making the region a better place for bicycling and walking.

# Introduction

# Bicycling, Walking and the Vision of the Transportation Planning Board

The National Capital Region Transportation Planning Board has long recognized the benefits of bicycling and walking in the region's multi-modal transportation system. The Transportation

Planning Board's *Transportation Vision* for the 21<sup>st</sup> Century, adopted in 1998, emphasizes bicycles and pedestrians in its goals, objectives and strategies. A key part of the vision is a strong urban core and a set of regional activity centers, which will provide for mixed uses in a walkable environment and reduced reliance on the automobile. The Vision also calls for the implementation of a regional bicycle and pedestrian plan. Recommendations in this plan will help realize the Vision.

## Bicycling and Walking in the National Capital Region



The Washington region is nationally known for the quality, beauty, and extent of its bicycle paths. Its walkable core neighborhoods attract residents and visitors alike. The region has a strong foundation of walking and bicycling facilities to build upon.<sup>1</sup>

The Urban Core has a Growing Network of Bicycle Lanes

Bicycling and walking together are a significant mode of transportation in the Washington

Walking and Bicycling account for 8.3% of all trips in the region region. According to the Metropolitan Washington Council of Governments' 1999 Household Travel Survey there are roughly 1.1 million pedestrian trips per day in the region, which is 7.8% of all trips. There are roughly 76,000 bicycle trips per day in the region, which is one-half of one percent of the almost 14 million daily trips for all modes of transportation.

Recent years have seen progress for bicyclists and pedestrians. Several major new trails have opened, and most local governments have adopted

bicycle, pedestrian, and/or trail plans. The Washington Metropolitan Area Transit Authority has eliminated the requirement for bike-on-rail permits, expanded bicycle boarding hours, and added

<sup>&</sup>lt;sup>1</sup> All photos in this plan are by TPB/Michael Farrell unless otherwise noted.

bike racks to its buses. Bicycle or pedestrian coordinators and trail planners are now found at most levels of government. In accordance with federal guidance and new state policies, pedestrian and bicycle facilities are increasingly being provided as part of larger transportation projects. Employers are investing in bike facilities at work sites, and developers are including paths in new construction.<sup>2</sup>



The Capital Crescent Trail Bridge over Rock Creek, Chevy Chase, MD opened in 2003 Bicycling and walking could reach a greater potential in the Washington region, however. Many trips currently taken by automobile could potentially be taken by bicycle. The average work trip length for all modes in the Washington Metropolitan Statistical Area is 16.2 miles.<sup>3</sup> But 17% of commute trips are less than five miles, a distance most people can cover by bicycle.

Many people who live far from their jobs, but closer to transit or a carpool location could walk or bike to transit or the carpool instead of driving. The average trip distance to transit or carpool is only 3.1 miles.<sup>4</sup> Only 15% of transit

riders and carpoolers travel more than five miles to the transit or carpool location<sup>5</sup>

The potential for shifting non-work trips to bicycle or walking is probably even greater than for work trips. The average non-work trip is a little more than five

miles, and nearly 3/4 of all trips are non-work trips.<sup>6</sup> Destinations such as schools, shopping, and recreational facilities are often close enough to walk or bicycle. Bicycling and walking have considerable potential to displace automobile trips if suitable transportation, design, safety, parking, school siting, and land development policies are followed.

<sup>&</sup>lt;sup>2</sup> Photo of Capital Crescent Trail Trestle, Montgomery County DPWT/Wayne Phyillaier

<sup>&</sup>lt;sup>3</sup> National Capital Region Transportation Planning Board, 2004 State of the Commute Survey Report, November, 2004, p. 22.

<sup>&</sup>lt;sup>4</sup> Ibid, p. 27.

<sup>&</sup>lt;sup>5</sup> Ibid, p. 27.

<sup>&</sup>lt;sup>6</sup> National Capital Regional Transportation Planning Board, *1994COG/TPB Household Travel Survey: Summary of Major Findings*, January, 1998. Page 5.

#### **Plan Development and Organization**

This plan has been prepared by the National Capital Region Transportation Planning Board (TPB), the federally designated Metropolitan Planning Organization (MPO) for the Washington region. The TPB is made up of representatives of 20 local governments, the departments of transportation of Maryland, Virginia, and the District of Columbia, the state legislatures, and the Washington Metropolitan Area Transit Authority (WMATA). Member jurisdictions are shown in Figure i-1 on page i-4. The area of the TPB members plus Calvert County in Maryland and Stafford County in Virginia comprises the Washington, DC-MD-VA Metropolitan Statistical Area (MSA).

This document presents the long-range Bicycle and Pedestrian Plan for the Washington Region through the year 2030. The plan is a list of regional projects identified by the TPB member jurisdictions, accompanied by recommended best practices and a description of existing facilities and regional trends for bicycling and walking. This plan includes both funded and unfunded projects. As a multi-state region, we do not specify design guidelines, but refer instead to state and national guidelines for bicycle and pedestrian facilities.

This update of the Bicycle and Pedestrian Plan for the National Capital Region seeks to reflect the goals, objectives and strategies of the TPB's 1998 Transportation Vision while building on information from previous bicycle plans.

This update also fully incorporates pedestrian issues for the first time. Pedestrian planning is most needed at the county, city and neighborhood level. There is, however, a role for regional pedestrian planning. By recommending policies and keeping track of regional trends, we can help make the Washington area a better place to walk.<sup>7</sup>



The New York Avenue Metro Station Incorporates a Shared-Use Path and Bicycle Parking

<sup>&</sup>lt;sup>7</sup> Photo of New York Avenue Metro Station: District of Columbia Department of Transportation/Jim Sebastian

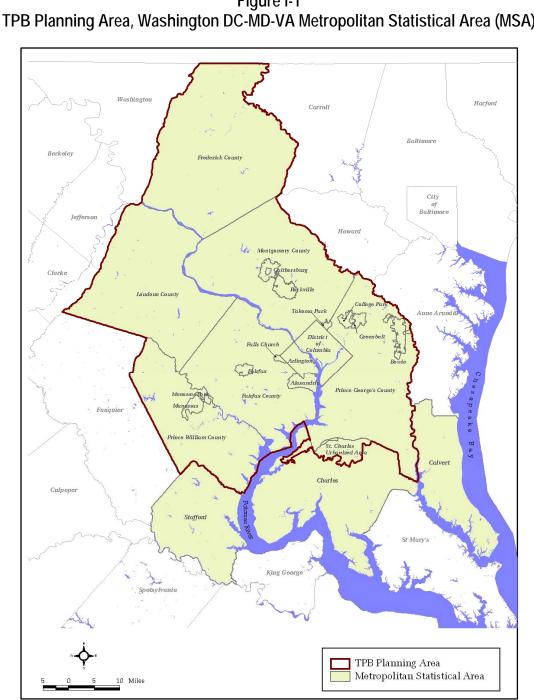


Figure i-1 TPB Planning Area, Washington DC-MD-VA Metropolitan Statistical Area (MSA)

# Chapter 1 Planning Context

# Overview

This Bicycle and Pedestrian Plan for the National Capital Region draws on and has been shaped by a number of regional, state, and local policy statements, plans, and studies, including the Vision of the Transportation Planning Board, the TCSP (Transportation and Community and System Preservation) reports, federal and state guidance on provision of bicycle and pedestrian facilities, the Constrained Long Range Plan and Transportation Improvement Program, and state and local bicycle and pedestrian plans.

## The Vision of the Transportation Planning Board

The National Capital Region Transportation Planning Board is the Metropolitan Planning Organization for the Washington region. It brings key decision-makers together to coordinate planning and funding for the region's transportation system.

The TPB's official vision statement for the region, the *Transportation Vision for the 21<sup>st</sup> Century*, adopted in 1998, is meant to guide regional transportation investments into the new century. The Vision is not a plan with a map or specific lists of projects. It lays out eight broad goals, with associated objectives and strategies that will help the region reach its goals.

The Vision of the TPB calls for more Walking and Biking

The Vision is supportive of pedestrians and bicyclists. It calls for:

- Convenient, safe bicycle and pedestrian access
- Walkable regional activity centers and urban core
- Reduced reliance on the automobile
- Increased walk and bike mode share
- Including bicycle and pedestrian facilities in new transportation projects and improvements
- Implementation of a regional bicycle and pedestrian plan

Sections of the Vision relating to bicycle and pedestrian goals are highlighted in Table 1-1. The full text of the Vision is available at <u>www.mwcog.org/transportation</u>.

This plan is intended to help fulfill the goals of the TPB Vision for Bicyclists and Pedestrians; recommendations in this plan reflect the goals of the Vision.

In addition to the specific references in Table 1-1, many other aspects of the Vision address bicyclists and pedestrians, such as: maintaining the existing transportation system, reducing the per capita vehicle miles traveled, linking land use and transportation planning, and achieving enhanced funding for transportation priorities.

# **Table 1-1:**

# **Bicycle and Pedestrian Provisions of the Transportation Vision**

The Washington metropolitan region's transportation system will provide Goal 1. reasonable access at reasonable cost to everyone in the region. Objective 4: Convenient bicycle and pedestrian access Strategy 3: Make the region's transportation facilities safer, more accessible and less intimidating for **pedestrians**, **bicyclists**, and persons with special needs. Goal 2. The Washington metropolitan region will develop, implement, and maintain an interconnected transportation system that enhances quality of life and promotes a strong and growing economy through the entire region, including a healthy regional core and dynamic region activity center with a mix of jobs, housing, and services in a walkable environment. Objective 2: Economical strong regional activity centers with a mix of jobs, housing, services, and recreation in a walkable environment. Objective 4: Improved internal mobility with reduced **reliance on the automobile** within the regional core and within regional activity centers. The Washington metropolitan region will plan and develop a Goal 5. transportation system that enhances and protects the region's natural environmental quality, cultural and historic resources, and communities. Objective 3: Increased transit, ridesharing, **bicycling and walking** mode shares. Strategy 7: Implement a regional **bicycle/trail/pedestrian plan** and include **bicycle** and pedestrian facilities in new transportation projects and improvements. Accompanying the Vision is a shorter action agenda with elements to be included in the year 2000 long range transportation plan for the region. Item four on the action agenda calls for a regional congestion management system to achieve significant reduction in single occupant vehicles (SOVs) entering the regional core and regional activity centers by: • designing and developing circulation systems that maximize the use of transit (rail, monorail, bus, jitney, etc.) and pedestrian and bicycle facilities

# CHAPTER 1: PLANNING CONTEXT

## Encouraging Bicycling and Walking: Bike to Work Day, the Bike to Work Guide, and Guaranteed Ride Home

To help realize the TPB Vision and reduce congestion, air pollution, and Single Occupant Vehicle Traffic, the TPB has developed several programs to encourage bicycling and walking in the Washington region. As part of its Commuter Connections program, every year on the third Friday in May the TPB sponsors a regional Bike to Work Day. This event has grown into one of the largest of its kind in the country, attracting over five thousand riders to more than twenty "pit stops" or rallying points around the region. The event is meant to encourage first-time riders to try bicycling to work.

The Commuter Connections program also publishes *Biking to Work in the Washington Area: A Guide for Employers and A Guide for Employees*, which provides tips for employees and employers. For employees, there are tips on safe cycling, laws, equipment and clothing, and transit connections. For employers, the guide explains the benefits of bicycling to the employer, the types of bicycle parking, and the ways an employer can encourage an employee to bike to work. Commuter Connections also makes available on-line a regional map of existing bicycle facilities, park and ride lots with bicycle parking, transit, and HOV lanes.<sup>1</sup> The Bicycle and Pedestrian Subcommittee also publishes a map of regional bicycle facilities in cooperation with the ADC Map Company. Maps can be ordered at <u>www.adcmap.com</u>.

People sometimes drive to work because they need to be able to get home quickly in an emergency. To meet that need and help get more people out of their cars, the Commuter Connections program offers a free taxi ride home in an emergency for commuters who regularly (twice a week) carpool, vanpool, bike, walk or take transit to work. Commuters who sign up for the program may use it up to four times per year.

## Priorities 2000: Metropolitan Washington Greenways and Circulation Systems

The Greenways and Circulation Systems Reports identify specific projects that support the TPB Vision In 1999 the TPB undertook the preparation of two reports: *Priorities* 2000: *Metropolitan Washington Greenways*, and *Priorities* 2000: *Metropolitan Washington Circulation Systems*<sup>2</sup>. The reports were funded by the Federal Highway Administration under the Transportation and Community and System Preservation (TCSP) Pilot Program. The grant was intended to support two key components of the TPB vision: improving circulation within the regional core and regional activity centers, and integrating greenspace into a regional greenways system. The Greenways report supports the greenways and trails component of the TPB vision, while the Circulation Systems report

supports the goal of improving circulation, especially non-motorized circulation, within the

<sup>&</sup>lt;sup>1</sup> The Bike to Work Guide is available at <u>www.mwcog.org/commuter/ccindex.html</u>

<sup>&</sup>lt;sup>2</sup> Both reports can be downloaded under "Information and Publications" at <u>www.mwcog.org</u>

# **Bicycle and Pedestrian Plan for the National Capital Region** Draft 05/13/06

# CHAPTER 1: PLANNING CONTEXT

urban core and the regional activity centers. The two *Priorities 2000* reports provided key input to this bicycle and pedestrian plan.

The Greenways report identified eight regional priority trail projects, and twelve local projects,

as well as nine major existing greenways. Projects were selected as regional priorities based on five criteria:

- Potential inter-jurisdictional connection
- Fill a critical gap
- Provide ecological benefits
- Links to existing or planned greenway
- Provide community access to the regional greenway network

The Greenways report also provides detailed strategies for identifying, planning, implementing, and managing greenways projects.



Regional priority projects, local priority projects, and selected existing greenways from the Greenways report are listed in Table 1-2 and are shown on Figure 1-1, Metropolitan Washington Greenways, in Appendix M. Several of these greenways have been completed since this report was published, while others have been advanced significantly.

## **Priorities 2000: Circulation Systems**

The Circulation Systems Report focused on local circulation systems within the regional core and within regional activity centers. Places such as Tysons Corner have grown to urban densities while relying almost entirely on the automobile for internal mobility, leading to worsening congestion and poor internal mobility. There is tremendous interest in improving internal pedestrian, bicycle, and transit mobility in such centers.

The Circulation Systems report identified candidate and priority projects for improving internal circulation. Out of 51 candidate projects identified, 34 were pedestrian or bicycle projects. Projects were selected as regional priorities using the following criteria:

- location in a regional activity center
- readiness for implementation
- included in a local plan
- safety

# CHAPTER 1: PLANNING CONTEXT

- air quality
- economic development
- households served
- employees served
- cost

The following projects were selected as regional priorities:

- 1. Downtown DC Circulator
- 2. New York Avenue Metro Station Access
- 3. Union Station Bike Station
- 4. Montgomery County CBD Shuttle Package
- 5. Rockville Town Center
- 6. Suitland Metro Area Bus and Pedestrian Improvements
- 7. Old Town Fairfax Redevelopment
- 8. Rosslyn Circle Crossing
- 9. Tysons Corner Pedestrian Improvements

Of the nine regional priority circulation projects, seven are wholly or partially pedestrian or bicycle projects.

The Greenways and Circulation Systems reports continue to serve as a resource for planners in the Washington region. They also represent the most recent statement of regional bicycle and pedestrian priorities, and a majority of the projects chosen as priorities have either been implemented or have been advanced significantly since the TCSP reports were issued. The TCSP selection criteria for regional priority have been incorporated into the information in the regional bicycle and pedestrian database.

## **Federal and State Policies**

US Department of Transportation guidance issued in 2000 calls for bicycling and walking facilities to be incorporated into all transportation projects unless exceptional circumstances

Virginia now requires "routine accommodation" of pedestrians and bicyclists in transportation projects exist. In 2004 the Virginia Department of Transportation released its policy for bicycle and pedestrian accommodation, which commits VDOT to routinely accommodating pedestrians and bicyclists as part of all new construction and reconstruction projects, unless exceptional circumstances exist.<sup>3</sup> The State of Maryland's Bicycle and Pedestrian Access Act provides that "Access to and use of transportation facilities by pedestrians and bicycle riders shall be considered in all phases of transportation planning, including highway design, construction, reconstruction, and repair."<sup>4</sup> The Maryland Department of Transportation is to "work to

<sup>&</sup>lt;sup>3</sup> <u>www.virginiadot.org</u>

ensure" that transportation options for pedestrians and bicycle riders will be enhanced and not negatively impacted by a project or improvement.

Routine accommodation policies are sometimes known as "complete streets" policies.<sup>5</sup> "Complete streets" are defined as streets that are designed and operated to enable safe access for all users, including motorists, pedestrians, bicyclists, and transit users, as well as older people, children, and the disabled. Oregon, Virginia, South Carolina, and a number of other regions and cities have adopted such policies.

Federal and State policies have evolved, from not requiring (or in some cases prohibiting) the use of transportation funds for pedestrian or bicycle facilities, towards requiring the provision of such facilities. These new federal and state guidelines and policies will likely lead to an increase in the number of pedestrian and bicycle facilities provided, with more facilities provided as part of larger transportation projects rather than as stand-alone projects.

#### Americans with Disabilities Act

The Americans with Disabilities Act (ADA) is a federal civil rights statute that prohibits discrimination against people who have disabilities. Under the ADA, designing and constructing facilities that are not usable by people with disabilities constitutes discrimination. Public rights of way, including pedestrian facilities, are required by federal law to be accessible to people with disabilities.

Both new and altered pedestrian facilities must be made accessible to persons with disabilities, including those who are blind or visually impaired. The courts have held that if a street is to be altered to make it more usable by the general public, it must also be made more usable for those with disabilities. The ADA Requires that all New and Altered Pedestrian Facilities be made Accessible to the Handicapped

Government facilities which were in existence prior to the effective dates of the ADA and which have not been altered are not required to be in full compliance with facility standards developed for new construction and alterations. However, they must achieve 'program access.' That is, the program must, when viewed in its entirety, not deny people with disabilities access to government programs and services. For example, curb ramps may not be required at every existing walkway if a basic level of access to the pedestrian network can be achieved by other means, e.g., the use of a slightly longer route. Municipalities should develop plans for the installation of curb ramps and accessible signals such that pedestrian routes are, when viewed in

<sup>&</sup>lt;sup>4</sup> Maryland Department of Transportation, *Twenty Year Bicycle and Pedestrian Access Master Plan*, October, 2002. p. 32.

<sup>&</sup>lt;sup>5</sup> <u>www.completestreets.org</u>

their entirety, accessible to people who are blind or visually impaired within reasonable travel time limits.  $^{6}$ 

Design standards for the disabled, such as smoother surfaces, adequate width, and limits on cross-slope, are also beneficial for the non-disabled pedestrian. Good design for the disabled is good design for all.

#### SAFETEA-LU

Under the SAFETEA-LU (Safe, Accountable, Flexible, Efficient Transportation Equity Act: Legacy for Users) federal transportation bill signed in August 2005, bicycle and pedestrian projects remain broadly eligible for nearly all funding categories, either for projects incorporated into something larger, or for stand-alone bicycle and pedestrian projects. The bill authorizes \$286 billion for highways and transit from 2005 through 2009, a 22% increase over the previous federal transportation bill, TEA-21.

Transportation Enhancements, half of which has historically been spent on bicycle or pedestrian projects, is funded nationally at a level of \$3.25 billion over five years. The Recreational Trails Program sets aside \$110 million for non-motorized trails. SAFETEA-LU also contains a number of high priority projects, sometimes known as legislative earmarks, many of which are bicycle or pedestrian projects.<sup>7</sup> Pedestrian and bicycle projects are *not*, however, limited to set-aside programs and high priority projects. They are broadly eligible for funding from highway and transit funds.

#### Safe Routes to School

Aside from the general increase in funding under SAFETEA-LU, the most important new setaside for bicyclists and pedestrians is the Safe Routes to School Program (SRTS). The goals of the program are to enable and encourage children to walk and bike to school, improve safety, and reduce traffic and air pollution near schools. Eligible activities include both infrastructure and non-infrastructure projects. Infrastructure projects include bicycle parking, crosswalks, sidewalks, traffic calming, on and off-street bicycle facilities, etc. on any public road or trail in the vicinity of a school. Non-infrastructure projects include public awareness and outreach to encourage walking and bicycling to school, traffic education and enforcement near schools, student sessions, training, SRTS program managers, and a State Coordinator. Not less than 10% or more than 30% of SRTS funds must be set aside for non-infrastructure projects.

Funds will be administered by state departments of transportation, with 100% federal share - no

<sup>&</sup>lt;sup>6</sup> American Council for the Blind, *Pedestrian Safety Handbook: A Handbook for Advocates.* www.acb.org

<sup>&</sup>lt;sup>7</sup> See <u>www.bikeleague.org</u> for further information on the Bicycle and Pedestrian provisions of SAFETEA-LU.

local match required. Each state is to receive funds in proportion to K-8 school enrollment, but not less than \$1 million. The budget will grow from \$54 million in 2005 to \$183 million in 2009.

## The Constrained Long Range Plan

The financially Constrained Long-Range Transportation Plan (CLRP) is a comprehensive plan of transportation projects and strategies that the TPB realistically anticipates can be implemented over the next 25 years. The region's transportation agencies and jurisdictions submit projects for the CLRP, which is developed and approved by the TPB. The CLRP is the primary vehicle for realizing the TPB's Vision and the States' long-range plans. Federal law requires that the CLRP be updated every four years; the most recent version was adopted in 2004. To receive federal funding, a transportation project in Metropolitan Washington must be included in the CLRP. Because funds must be reasonably anticipated to be available for all the projects in the CLRP, the CLRP is not a wish list, but a fairly realistic plan.

The CLRP identifies a few important bicycle projects, as well as discussing the actions of the Bicycle and Pedestrian Subcommittee to promote pedestrian and bicycle safety, walkable communities, and better professional development and training. Training in the requirements of the Americans with Disabilities Act with respect to pedestrian facilities has been a major emphasis.

Bicycle and pedestrian projects in the 2005 CLRP are listed in Appendix C. Historically, less than 1% of the capital funding in the CLRP has been specifically for stand-alone bicycle and pedestrian projects. However, since bicycle and pedestrian projects are usually small projects, they are often added to the plan later than the major highway and transit projects. Moreover, much pedestrian and bicycle spending is subsumed within larger highway or transit projects, and thus is not reflected in the amount programmed for bicycle and pedestrian projects. Therefore, the CLRP may under-estimate the amount of bicycle and pedestrian spending that will occur over the next 25 years. State departments of transportation may also increase funding levels in the future as they implement policies to routinely accommodate pedestrians and bicyclists in all new transportation projects.

Under SAFETEA-LU bicyclists, pedestrians, and people with disabilities are explicitly required to be given an opportunity to comment on metropolitan transportation plans.

#### The Transportation Improvement Program

The Transportation Improvement Program (TIP) provides detailed information showing which projects in the CLRP will be completed over the next six-year period. The TIP is updated every year. Like the CLRP, the TIP is subject to federal review. Many projects in the TIP are staged, so a single CLRP project could end being split into The Transportation Improvement Program includes \$122 million for pedestrian and bicycle projects multiple TIP projects.

Bicycle and pedestrian projects that use federal funds are listed in the TIP. For example, the Fiscal Year 2006-2011 TIP includes \$122 million for bicycle and pedestrian projects. Of that, \$69 million is programmed for FY 2006, which is 2.4 % of the total capital funds for all transportation projects programmed for FY 2006. As with the CLRP, funds spent on bicycle and pedestrian accommodations as part of a larger highway or transit project are often subsumed in budget of the larger project.

## Local Bicycle and Pedestrian Planning

Nearly every jurisdiction in the region has completed a bicycle or pedestrian plan, and most have at least part time bicycle or pedestrian planner. Table 1-2 shows local and state plans and studies and the year published. Jurisdictions and agencies drew projects from these individual plans and submitted them for incorporation into the Regional Bicycle and Pedestrian Plan. Local plans may include unfunded projects.

# Table 1-3:Major Bicycle and Pedestrian Plans and StudiesOf the Washington Region

Jurisdiction/	Plan/Study	Year
Agency		
Arlington	Pedestrian Transportation	1997,
County	Plan,	1994
	Bicycle Transportation Plan	1000
City of Alexandria	Bicycle Transportation and	1998
	Multi-Use Trail Plan	
District of	District of Columbia Bicycle	2005
Columbia	Master Plan	
Fairfax	Countywide Trails Plan	2002
County	-	
Frederick County	Frederick County Bikeways	1999
	and Trails Plan	
City of	Bikeways and Pedestrian Plan	1999
Gaithersburg		
Loudoun County	Loudoun County Bicycle and	2003
	Pedestrian Master Plan	
Maryland	Twenty Year Bicycle and	2002
Department of	Pedestrian Access Master Plan	2002
Transportation		
MNCPPC –	Transportation Priority List	1999
Prince George's County	(Joint Signature Letter)	1999
Timee George's county	(John Dighatare Letter)	
Montgomery	Countywide Bikeways	2005
County	Functional Master Plan	
National Capital	Comprehensive Plan for the	2004
Planning	National Capital	
Commission		
National Capital Region	Priorities 2000: Metropolitan	2001,
Transportation Planning	Washington Greenways &	1995
Board	Circulation Systems, Bicycle Plan for the National	
	Capital Region	
National Park	Paved Recreation Trails Plan	1990
Service		

# CHAPTER 1: PLANNING CONTEXT

Jurisdiction/ Agency	Plan/Study	Year
Prince William	Thoroughfares Plan (part of	1998, 1993
County	Comprehensive Plan),	
	Greenways and Trails Plan	
City of	Bicycle Master Plan	1998
Rockville		
Virginia Department of	Northern Virginia Regional	2003
Transportation,	Bikeway and Trail Network	
Northern Virginia	Study	
Office		

Table 1-4 shows the approximate number of full-time planners each agency has working on bicycle, pedestrian, and trails planning.

# Table 1-4: Agency Bicycle/Pedestrian Planning Staff Full-Time Equivalents (FTE's)

Jurisdiction/ Agency	Bicycle Planner FTE's	Pedestrian Planner FTE's	Trails Planner FTE's
Arlington County	1	1	1
City of Gaithersburg	0.5		
City of Alexandria	0.5	0.5	
City of College Park	0.5		
City of Rockville	0.5	0.5	
District of Columbia	2	1	1
Fairfax County	1	2	2

# **Bicycle and Pedestrian Plan for the National Capital Region** Draft 05/13/06

# CHAPTER 1: PLANNING CONTEXT

Jurisdiction/ Agency	Bicycle Planner FTE's	Pedestrian Planner FTE's	Trails Planner FTE's
Frederick County	0.5		
Loudoun County	0.5		
Maryland Department of Transportation	1	2	1
MNCPPC – Montgomery County	0.33	0.33	1
MNCPPC – Prince George's County			1
Montgomery County	1	1	1
National Capital Region Transportation Planning Board	0.5	0.5	
National Park Service			1
Prince William County			0.5
Virginia Department of Transportation, Northern Virginia Office	1.5	1.5	
WMATA	0.5	0.5	

# **Priority Unfunded Regional Bicycle and Pedestrian Projects**

The Bicycle and Pedestrian Subcommittee periodically selects a short list of priority unfunded bicycle and pedestrian projects. These projects are selected from the TCSP reports, the regional

bicycle plan, and from state and local plans. The subcommittee has compiled and forwarded lists to TPB regularly since 1995, to be included in the solicitation document for the TIP/CLRP. In essence, the TPB urges the jurisdictions to consider funding these projects, which the Bicycle and Pedestrian Subcommittee has judged to be regionally significant.

The selection criteria for inclusion in this short list were drawn from those used in the TCSP "Greenways" and "Circulation Systems" reports. The following criteria were used:

- **Bicycle Network Connectivity:** priority was given to projects that enhanced connectivity of facilities on the regional bicycle facilities network.
- **Pedestrian Safety:** priority was given to projects that promoted pedestrian safety, especially in areas with documented pedestrian safety problems and no pending road project that could address them.
- Access to Transit: priority was given to projects that enhanced access to Metrorail stations and other major transit stops or facilities.
- **Time Frame:** all projects should be able to be completed by 2011, the end of the TIP time frame.
- **Local Support:** the project is a priority for the jurisdiction or jurisdictions in which it is located.
- **Still seeking funding:** the project does not yet have full construction funding committed to it.
- **Reasonable Cost:** the total cost of the list should be a reasonable fraction of the total spending in the region on highways and bridges.

While considerable weight is given to the preference of the representative of the jurisdiction, subcommittee members are urged to think in terms of the regional selection criteria when nominating projects.

Projects are dropped from the list when they receive funding, or if the subcommittee and nominating jurisdiction decide that priorities have changed. Most projects on past lists have been funded. Seven projects totaling \$11,508,000 were funded from the 2000 list, and five projects from the 2002 list were fully or partially funded. Projects funded since 1995 include:

- > The Metropolitan Branch Trail in Washington, D.C.
- > Pedestrian and Bicycle Safety Improvements on Route 1 in Fairfax County
- > The Dumfries Road (Route 234) Bike Path in Prince William County
- > The Rosslyn Circle Crossing in Arlington County
- > The Eisenhower Trail in Alexandria
- > The Matthew Henson Trail in Montgomery County
- > The Henson Creek Trail in Prince George's County
- > The Rockville Millenium Trail in the City of Rockville

#### **Regional Bicycle Plans**

The Washington region completed its first major bicycle study, the Washington Regional Bikeways Study of 1977. This study, created with under the supervision of the Regional Bikeways Technical Subcommittee of the Transportation Planning Board Technical Committee, provided an overview of bicycling characteristics and the potential market for bicycle commuting.

In 1988 the Bicycle Technical Subcommittee began work on a bicycle element for incorporation into the region's transportation plan. The plan identified the extent to which bicycle facilities and planning processes already existed in the region, highlighted areas of concern for the future, and drafted a set of policy principles to be applied by the region's jurisdictions in updating their own transportation plans, as well as a list of recommended bicycle projects. The "Bicycle Element" was adopted by the Transportation Planning Board as part of the region's Constrained Long-Range Plan in November 1991.

In 1995, the Transportation Planning Board adopted an update to the 1991 Bicycle Element, the Bicycle Plan for the National Capital Region, as an amendment to the Constrained Long-Range Plan. The revised plan emphasized bicycling for transportation. The revised recommended project lists and policy principles were produced by the Bicycle Technical Subcommittee.

In February, 2001 the TPB completed the *Priorities 2000: Greenways* and *Circulation Systems* reports, which identified greenway and pedestrian circulation systems priorities.

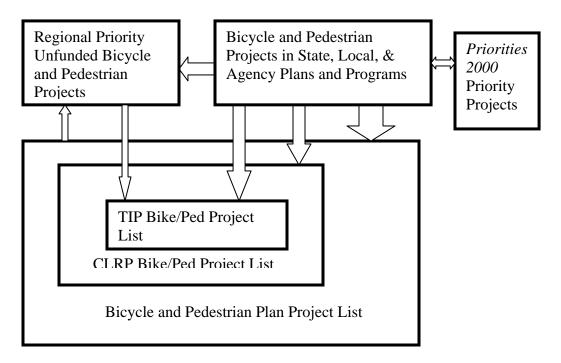
Except for the *Priorities 2000* reports, predecessors to this plan were "bicycle" plans. This update to the previous plans fully incorporates pedestrian elements for the first time.

#### **Sources of the Regional Plan Projects**

State, local, and agency bicycle and pedestrian plans are the source of the projects in this plan. All bicycle and pedestrian projects that are programmed in the TIP are also in the CLRP and in this plan. The plan, however, includes many projects that are not in the TIP or the CLRP. The selection criteria from the Transportation Planning Board's *Priorities 2000: Circulations Systems* and *Greenways* reports helped determine the data included for each project in the bicycle and pedestrian plan project list. Figure 1-2 illustrates the relationships between the various project lists.

# CHAPTER 1: PLANNING CONTEXT

# Figure 1-2



# Outlook

The TPB has a continuing commitment to inclusion of both bicycle and pedestrian elements in long-range transportation plans. Bicycle and pedestrian plan elements in the regional plans are drawn from jurisdictional plans and policies. The regional Bicycle and Pedestrian Plan in turn will advise the choices made by TPB member agencies for the inclusion of bicycle and pedestrian projects in future Constrained Long Range Plans and Transportation Improvement Programs.

# Chapter 2

Bicycling and Walking in the Washington Region

Draft 06/15/06

# Overview

Residents of the Washington region walk and bicycle at about the same rate as the nation

as a whole. Tables 2-1 and 2-2 show the share of walking and bicycling trips to work for the ten largest metropolitan areas.

Nationally, 10% of all urban area trips are made on foot or by bike Walking and bicycling are declining as modes of transportation both in the Washington region and nationally. Nationally, 0.38% of American workers bicycled to work in 2000, and 2.93% walked. In 1990 0.4% bicycled to work, and 3.9% walked. The number of people driving alone rose from

73.2% in 1990 to 75.7% in 2000, while use of public transportation fell by 0.5%. Driving has been growing, and walking and public transportation declining, for many decades. In 1960 9.9% of workers walked to work, but only 2.93% did so in 2000.<sup>2</sup>

The walk and bike modes are more common, though, than the census commute mode numbers would lead one to believe. Work trips account for only 20% of all trips; walking and biking are more common for other purposes. Nationally, 9.5% of all urban area trips were made on foot, and 0.9% by bicycle in 2001. In the Mid-Atlantic region, 15.8% of all trips are made on foot, and 0.8% by bicycle.<sup>3</sup>

	Table 2-1	% Walk	
	Pedestrian Commuting in	to	
	the Ten Largest	Work	
	Metropolitan Areas <sup>1</sup>		
1	New York	5.55%	
2	Boston	4.12%	
3	Philadelphia	3.88%	
4	San Francisco	3.25%	
5	Chicago	3.13%	
6	Washington	3.10%	
7	Los Angeles	2.56%	
8	Detroit	1.83%	
9	Houston	1.62%	
10	Dallas-Fort Worth	1.48%	
	United States	2.93%	

	Table 2-2:	%
	Bicycle Commuting in the	Bike
	Ten Largest Metropolitan	to
	Areas	Work
1	San Francisco	1.12%
2	Los Angeles	0.63%
3	Boston	0.38%
4	Philadelphia	0.33%
5	Chicago	0.31%
6	Houston	0.30%
7	New York	0.30%
8	Washington	0.30%
9	Detroit	0.18%
10	DallasFort Worth	0.14%
	United States	0.38%

Regionally, bicycling and walking are concentrated in the core neighborhoods of the Washington region, especially areas near downtown D.C. and certain Metro stations, as well as college campuses and military bases. Walking is stable in those neighborhoods, and bicycling is growing. Walking is a significant mode throughout the region.

<sup>1 2000</sup> US Census

<sup>2 1960</sup> Census of Population, Characteristics of Population, United States Summary

<sup>3</sup> Pucher, John, "Socioeconomics of Urban Travel: Evidence from the 2001 NHTS". *Transportation Quarterly*, Vol. 57, No. 3, Summer 2003 (49-77). Page 54.

Ethnicity, geography, age, and care ownership affect the decision to walk or bicycle to work. People living in the District of Columbia are far more likely to walk or bicycle to work than those living in Maryland or Virginia. People under the age of 35 or over the age of 65 are more likely to walk or bicycle to work. People living in households without cars are more likely to walk or bicycle than those that have one, and those living in households with only one car are more likely to walk or bicycle than those owning two. Middle-income groups are slightly less likely to walk or bicycle than either low income or the high-income groups. Hispanics are most likely to walk or bike to work.

Distance is a major barrier to commuter cycling, along with absence of safe routes, and lack of end-of-trip facilities such as showers and lockers.<sup>4</sup> However, most commute trips that are short enough to be bikable or walkable are still taken by car. The average trip distance to transit or carpool is very short.

Transit and walking are interdependent, with 80% of bus and 60% of Metrorail access trips on foot. Mode of access varies tremendously by Metro station. Bicycling to transit is less common and varies greatly by Metro station, with the lowest rates of bicycle access found east of the Anacostia river.

Walking and bicycling are most common in activity centers with a mix of jobs, housing, services, and recreation in a walkable environment.

# Jurisdictional Trends according to the US Census

The national trend towards less walking and bicycling also holds for the Washington Metropolitan Statistical Area. In 1990, 6633 people (0.3 %) biked to work on an average day in the Washington area and 85,292 (3.9 %) walked. In 2000, 7,532 people (0.3%) biked to work and 72,700 (3.1%) walked. It should be noted that the census numbers tend to undercount pedestrian trips, since a walk trip to transit is counted as a transit trip, not as a walk trip. Charts 2-1 and 2-2 below show the changes in walking and biking to work by jurisdiction.

<sup>4</sup> Metropolitan Washington Council of Governments, 2004 Bike to Work Day Survey- Summary of Results, June, 2005. Page 6.

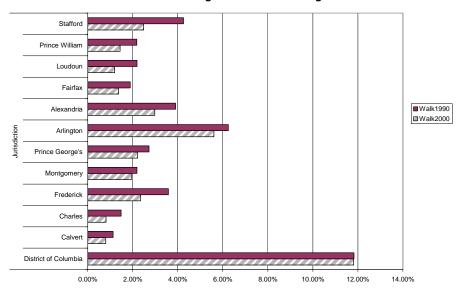
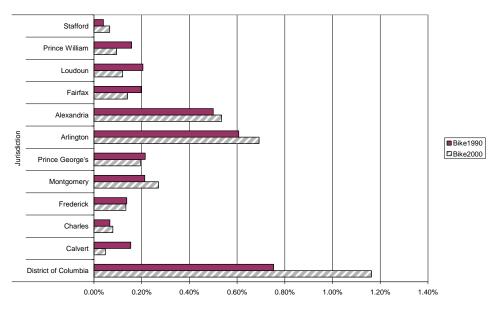


Chart 2-1: Percentage of Workers Walking to Work

Chart 2-2: Percentage of Workers Biking to Work

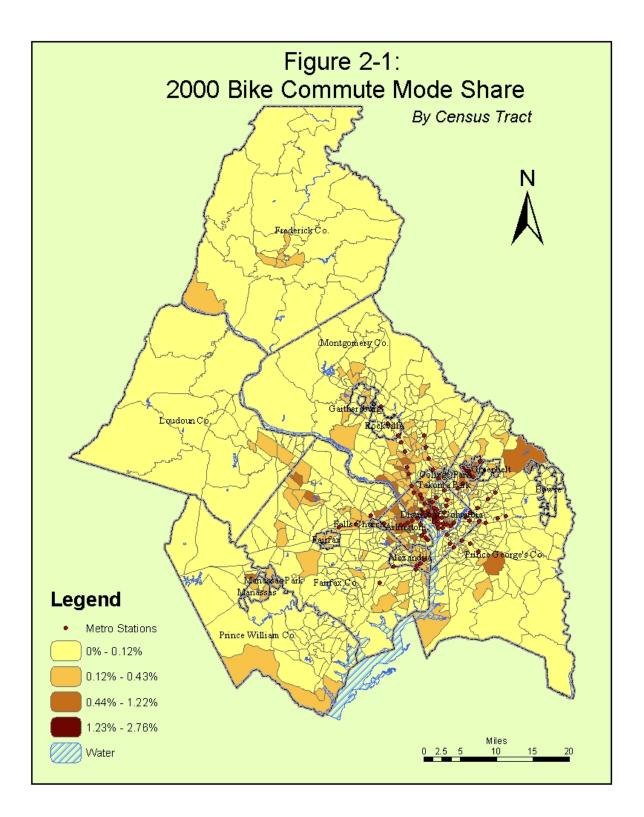


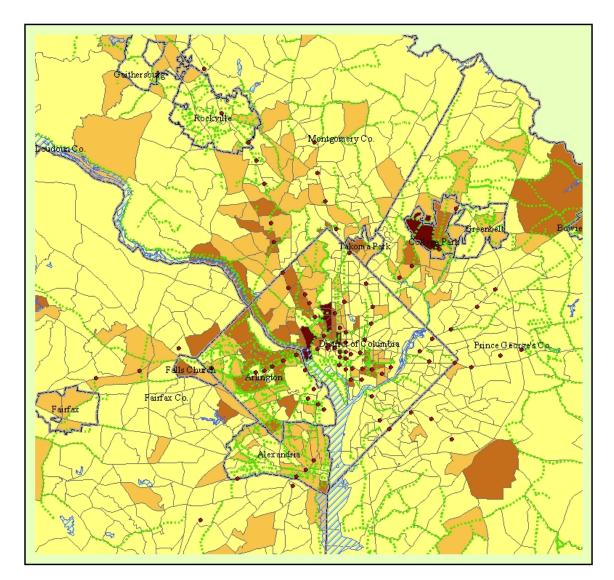
Generally, the urban core of the Washington region, consisting of the District of Columbia, Arlington, and Alexandria, has experienced modest losses in pedestrian mode share and considerable gains in bicycling. The District of Columbia has maintained its pedestrian mode share for the journey to work, while increasing its bicycle mode share considerably. The outer suburban jurisdictions had relatively few people bicycling or

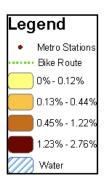
walking to work in 1990, and that number fell further during the decade that followed.

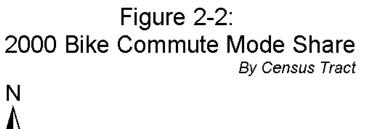
#### Mode Share by Census Tract

Figure 2-1 shows the percentage of home-based work trips by bicycle for each census tract within the TPB member jurisdictions. Figure 2-3 shows the percentage of home-based work trips by foot. Figures 2-2 and 2-4 show bicycle and walk work trips respectively for the area served by Metrorail. The maps show that bicycling and walking are concentrated in the neighborhoods surrounding downtown D.C., Capitol Hill, and North Arlington. The neighborhoods closest to downtown show the highest walk mode shares, while those a little further out have the highest bike mode shares. Census tracts abutting major facilities such as the W&OD, the C&O, and the Mt. Vernon Trails tend to show higher levels of bicycling. College campuses and military bases such as University of Maryland, Ft. Meyers, Bolling Air Force Base, the National Institute of Health, Walter Reed, Howard, Georgetown and Gallaudet all have high walk or bike mode share.

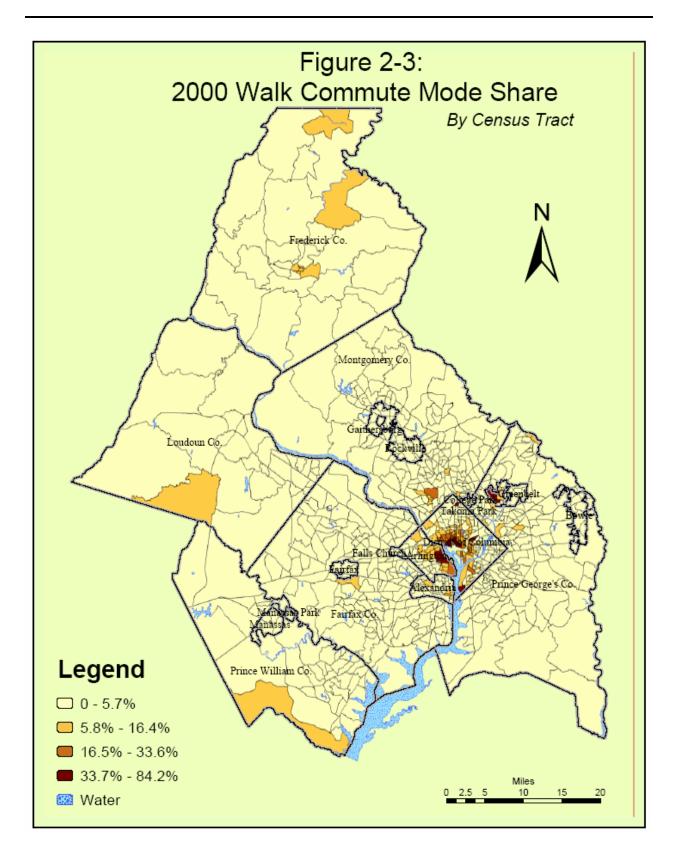






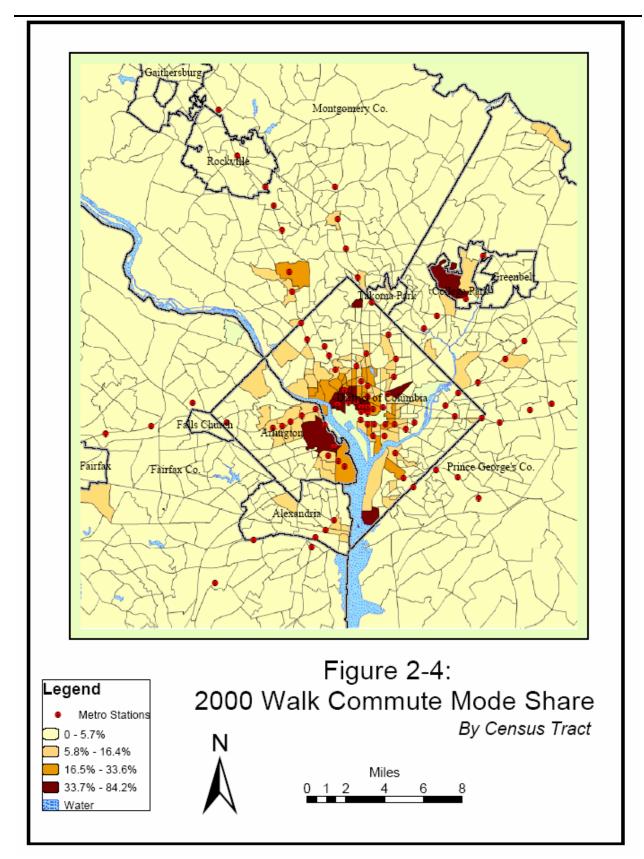


Miles



### **Bicycle and Pedestrian Plan for the National Capital Region** Draft 06/15/06

### CHAPTER 2: BICYCLING AND WALKING IN THE WASHINGTON REGION

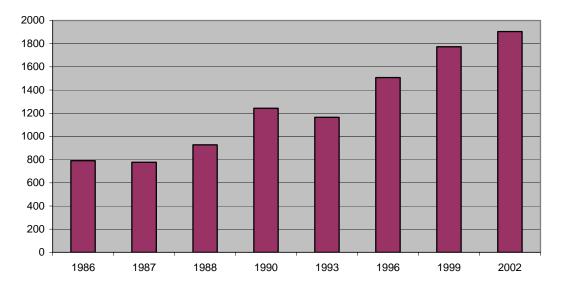


#### **Bicycling in the Metro Core**

COG periodically takes a count of vehicular traffic, including bicycle traffic but excluding pedestrian traffic, entering downtown D.C. and Arlington, as well as traffic crossing the beltway.

Bicycling is	Cordon counts are not done in other parts of the region. COG's cordon counts confirm the census data indicating a concentration of bicycling in the neighborhoods close to downtown D.C. and Arlington.
Growing Rapidly in Downtown D.C. and North Arlington	The counts show that bicycle traffic into the downtown Metro core is growing rapidly, with bicycle traffic into the D.C. section of the Metro core more than doubling from 1986 to 2002. The number of bicyclists entering the Metro core within the District of Columbia has grown steadily from 474 in 1986 to 1,379 in 2002. The number of cyclists crossing the
	Potomac bridges grew from 317 in 1986 to 525 in 2002. Bicycle traffic into the Arlington section of the Metro core increased from 409 to 645

bicyclists between 1999 and 2002, while Potomac bridge traffic declined slightly over the same period, indicating that more people are bicycling to destinations, probably employment, within Arlington in the morning. Chart 2-3 shows the number of bicycles entering the D.C. section of the Metro core from 1986 to 2002.



### Chart 2-3: Bicycles Entering D.C. Section of the Metro Core

Bicycle traffic is also counted on the beltway cordon, including traffic on shared-use paths, but the a.m. volumes recorded are a fraction of the numbers entering the Metro core. Table 2-5 in

Appendix F shows the bicycle volumes recorded crossing the beltway in 1995, 1998, and 2001.

#### **Demographic Characteristics of Pedestrians and Bicyclists**

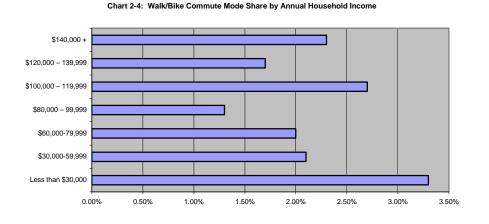
Ethnicity, geography, income, age, and car ownership affect the decision to walk or bicycle to work. The best recent source of this demographic information on pedestrian and bicycle commuters in the Washington region is the 2004 Commuter Connections State of the Commute (SOC) Survey. However, the State of the Commute Survey and the US Census both measure work trips only, and the conclusions in terms of both the prevalence and distribution of walking and bicycling can be quite different for all trips than for work trips. Nationally, the 2001 National Household Personal Transportation Survey is the best source of data demographic data on pedestrians and bicyclists for all types of trips.

All data in the following tables comes from the 2004 State of the Commute Survey unless otherwise noted. Walking and bicycling were not calculated separately in the State of the Commute Survey for the subcategories of ethnicity, income, age, and state of residence due to sample size issues. All mode shares are for primary commute mode, 3+ days per week. Walk/bike mode share varies by household income, state of residence, number of vehicles in the household, ethnicity, and age. Both the 2001 and the 2004 State of the Commute Surveys show lower mode share for walking and bicycling than does the 2000 Census, a discrepancy probably explained by differing methodologies.

#### A. Household Income

Chart 2-4 shows walking and bicycling commute mode share by income. Walking and bicycling to work are somewhat more prevalent among the low-income (less than \$30,000 household income per year) than among the very high-income (more than \$140,000 per year). Bicycling and walking are slightly more common at the top and the bottom of the income distribution than in the middle. This is roughly consistent with the national data for all trips.

Draft 06/15/06



**B.** Ethnicity

Walk/bike commute mode share differs more by ethnicity than by income. Hispanics have the highest walk/bike mode share at 3.8%, African-Americans the lowest at 1.5%.

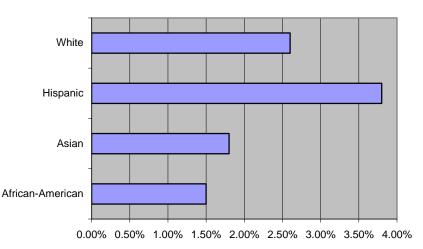


Chart 2-5: Walk/Bike Commute Mode Share by Ethnicity

National data for all trips, however, show African-Americans and Hispanics both walking for about 12% of all trips, though African-Americans bicycle less. Whites walk less than any other ethnic group, but take 0.9% of their trips by bike, the same as Hispanics.<sup>5</sup>

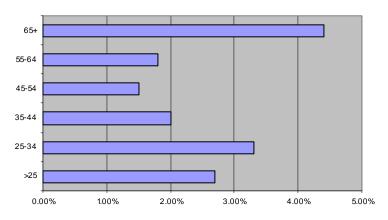
### C. Age

Chart 2-6 shows walk/bike commute mode share by age. People under 35 and over 65 are more likely to walk or bike to work than the middle-aged. Nationally the elderly

5 Ibid, p. 68.

#### have

a lower than average mode share for bicycling, so we can presume that most of the elderly are walking rather than bicycling.



#### Chart 2-6: Walk/Bike Commute Mode Share by Age

### **D.** State of Residence

State of residence strongly predicts the likelihood of walking or bicycling to work, with 8.7% of District of Columbia residents walking or bicycling, versus 1.4% of Maryland residents and 1.5% of Virginia residents. District of Columbia residents are much less likely to own cars than Virginia or Maryland residents, are more likely to be low-income, and tend to live closer to transit or within walking distance of work.

### E. Motor Vehicles per Household

Vehicles per household is another strong predictor, as shown in Table 2-6. People in households without any vehicles are much more likely to walk or bike to work than households that own one, while those living in households with one vehicle are more likely to walk or bicycle to work than those owning more than one vehicle. Non-work trips also shift radically away from walking in households that have at least one car.

F					
Number of Vehicles in the	0	1	2	3	4+
Household					
Walk/Bike	11.40%	3.70%	1.20%	1.40%	0.60%
Commute Mode					
Share					
Walk Mode Share	41.1%	12.5%	7.8%	6.3% (3	
– All Trips				or more)	
(NPTS) <sup>6</sup>				,	
Bike Mode Share	2.4%	0.7%	0.9%	0.8% (3	
– All Trips (NPTS)				or more)	

# Table 2-6 Walk/Bike Mode Share by Number of Vehicles

### **Trip Distances**

Distance was the third most frequently cited reason, by 31% of respondents, to COG's Bike to Work Day survey to explain why they were *not* riding to work. Reasons One and Two were "Don't like to ride in rain/cold/hot weather" (42%) and "No safe route" (35%). So trip distance is of great interest when gauging the potential for increasing bicycling (or walking). The 2004 SOC survey asked respondents about the length of their commutes. Commute mileage is shown in Table 2-7 below.

#### Table 2-7: Commute Distance

Distance	Less than 5 miles	5 to 9 miles	10 to 14 miles	15 to 19 miles	20+ miles
Percentage	17%	19%	18%	13%	34%

The mean commute distance in the Washington region is 16.2 miles. However, 17% of commutes in the Washington region are less than five miles and therefore potentially bikable on a daily basis. The median commute distance for Washington-area bicyclists is five miles. Table 2-8 shows walk and bike average and median commute distances in miles for pedestrians and bicyclists, from the 2004 State of the Commute Survey data.

<b>Table 2-8:</b>	Walk and Bike	<b>Commute Distance</b>	(in Miles)

COMMUTE MODE	MEAN	MEDIAN	N
Walk	1.42	1.00	144
Bike	8.17	5.00	32

6 Ibid, p. 57.

Another major potential source of walk or bike trips is the trip to transit, park and ride lot, or vanpool and carpool pick-up point. As shown in Table 2-9, access trips to alternative mode meetings points tended to be short. Respondents traveled an average of 3.1 miles. The majority of respondents (59%) traveled one mile or less to the meeting point. Another 26% said they traveled between two and five miles. Only 15% of respondents traveled more than five miles. Based on the distances being traveled, many of the 29% of respondents who are currently driving to their alternative mode meeting point might be able to walk or bicycle instead.

 
 Table 2-9

 Distance Traveled from Home to Alternative Mode Meeting Point (n=1,230)

Distance	Percentage
1 mile or less	59%
2 miles	10%
3 miles	7%
4 to 5 miles	9%
6 to 10 miles	10%
11 miles or more	5%

 Means of Getting from Home to Alternative Mode Meeting/Transfer Point

 (n=1,577)

Access Mode to Alternative Mode	Percentage
Walk	39%
Picked up at home	15%
Drive to a central location (e.g., Park & Ride)	18%
Drive alone to driver's/passenger's home	11%
Bus/transit	9%
I am the carpool/vanpool driver	5%
Dropped off/another CP/VP	1%
Other*	1%

### Non-Work Trips: The COG/TPB Household Travel Survey

In order to calibrate the regional travel demand model, the Council of Governments conducts periodic surveys of travel behavior, including trips for purposes other than work. The most recent surveys that include bicycle and pedestrian data were conducted in 1988, 1994 and in 1999.

These surveys use a much smaller sample of the region's residents than the Census. In 1994, 4800 households were surveyed about their travel behavior (out of a Metropolitan population of roughly 4 million). In 1999, only 2000 were sampled.

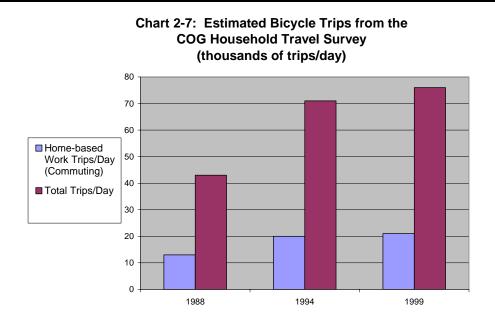
The advantage of the Household Travel Survey is that we learn about trips of all purposes, not just work trips. The Census and the State of the Commute Survey give us information about commute trips only. The disadvantage is that only the 1994 sample size was large enough to provide reliable information about bicycling and walking. Another household travel survey with a sample size comparable to the 1994 survey will be carried out in 2006-2007.

According to Chart 2-7 bicycle trips nearly doubled from 1988 to 1999. However, this increase coincides with an increase in population and employment in the region. In those 11 years the population increased an estimated 17% and the number of jobs increased 14%. Another important factor in the apparent increase is the difference in survey methodology between 1988 and 1994. A greater effort was made to gather bicycle and pedestrian trips in 1994 and 1999.

From 1994 to 1999 bicycle trips as a portion of total trips for all modes remained about the same: 0.5 % for all trip purposes and 0.7% for work trips.

### **Bicycle and Pedestrian Plan for the National Capital Region** Draft 06/15/06

### CHAPTER 2: BICYCLING AND WALKING IN THE WASHINGTON REGION



The number of pedestrian trips is higher than for bicycle trips. In the 1994 Household Travel Survey, we found that 7.8% of all trips were on foot, and that walking accounted for 3.1% of work trips. The 1988 Household Travel Survey only asked about work trips, and this data does not include walking to transit.

In 1994 three fourths of all trips in the Washington region were for purposes other than work, and those trips were relatively short trips, averaging between four and six miles in length.<sup>7</sup> More than 80% of those non-work trips were auto trips, and another 4% were school bus trips.

#### Walking and Bicycling to Transit

Walking is the dominant mode of access to transit. The census walk to work mode share does not include walk trips to transit, since a walk trip to transit is counted as a transit trip rather than as a walk trip. In areas with high transit ridership the census walk to work numbers significantly undercount the amount of walking to or from work. According to

<sup>7 1994</sup> COG/TPB Household Travel Survey: Summary of Major Findings. January, 1998. Metropolitan Washington Council of Governments, page 5.

the 2004 State of the Commute Survey, 83% of bus commuters walk to the bus.<sup>8</sup>

In 2002 WMATA surveyed passengers at all 83 of its Metrorail stations. The primary purpose of the survey was to estimate the percentage of total ridership residing in each jurisdiction. Passengers *entering* each Metro station were queried throughout the entire day, so the "mode of access" number for any give Metro station includes both people on

their way to work or some other destination, and those on their way home. "Mode of Access" is the mode people use to get to the station, not to leave it.

61% of Metrorail Passengers Walk to the Station

Table 2-11 in Appendix G and Table 2-12 in Appendix H show the number of passengers who arrived at each station on a given day by bicycle, on foot, and by all modes put together. On average, 60.74% of all Metrorail passengers walked to the station, while only 0.31% arrived by bicycle. 15% parked and rode.<sup>9</sup> 5% were dropped off by someone, and another 11% arrived at the Metro station by bus. "Mode of Access" by foot numbers are higher than the number of commuters who report getting to Metro on foot in the 2004 State of the Commute Survey, because "mode of access" to any given station includes people who are returning *from* work. Another likely reason for the difference is that the State of the Commute Survey includes only those using Metro for commuting, while the Passenger Rail Survey includes those using Metrorail for all purposes.

Mode of access varies enormously by station, from Federal Center, with 94.2% access by foot, to Branch Avenue, with 0.9% access by foot. The top thirty stations for pedestrian access (as a percentage of total passengers accessing that station) are all located in the District of Columbia, Arlington, or Alexandria. Stations with a very high share of pedestrians tend to be located in major employment centers, with people walking from work to the station, rather than from home to the station. However, largely residential-area stations such as Woodley Park, Cleveland Park, Eastern Market, and Columbia Heights are found in the top thirty. Dense, mixed-use areas such as Bethesda, Foggy Bottom, Crystal City, Pentagon City, Friendship Heights, Van Ness, Dupont Circle, Shaw, and the Rosslyn-Ballston Corridor have high percentages of pedestrian access as well.

The bicycle mode of access to transit, according to the 2002 WMATA Rail Passenger Survey, was 0.31%, and ranged from 3% at College Park to zero at 23 stations. Stations with more bicycling tended to be located in the western portion of the region, have access to a major shared-use path, be near a major University, and/or be located in an area with

<sup>8 2004</sup> State of the Commute Survey Results. Metropolitan Washington Council of Governments, p. 63. 9 2002 WMATA Rail Passenger Survey, WB&A Market Research, from the table "Origin Station by Mode of Access".

a bicycle-friendly street grid. Stations with no bicycling are either in dense urban employment centers with no bicycle parking, or are located in the eastern portion of the region. Of the 14 Metro stations located east of the Anacostia River in 2002, ten had no bicycle use at all. All stations in Fairfax and Montgomery Counties had some bicycle use. The WMATA rail passenger survey confirms what the census tells us about the distribution of walking and bicycling in the region, with walking and bicycling heavily concentrated in the Metro core and at certain inner suburban stations.

### Outlook

Walking and bicycling taken together are significant travel modes in the Washington region, especially for non-work trips, and for trips to transit. Walking is the larger mode, but it is shrinking, while cycling is less common and is stable at the regional level.

Commutes are getting longer across the region, and the fastest population growth taking place in outer jurisdictions that have low and declining levels of walking and bicycling. Those areas have developed in ways that make utilitarian walking and bicycling difficult Growth in Walking and Bicycling will likely occur in the Urban Core and Regional Activity Centers

and dangerous, with long distances, lack of direct routes, heavy, fast automobile traffic, and incomplete facilities for walking or bicycling.

The story in the urban core, however, is different. In the District of Columbia, Arlington, Alexandria, and portions of Montgomery County, walking is holding its own, while bicycling is expanding rapidly. Where one finds mixed-use activity centers, one finds a lot of people walking and bicycling. Where land uses are separated and development densities are lower, walking and bicycling are less common.

It is likely that the urban core and inner suburban communities will develop over the next thirty years ways that will be conducive to walking and bicycling. Many inner suburban activity centers have already reached critical levels of traffic congestion. Land values in the inner jurisdictions have been rising rapidly, and regional projections call for rapid employment growth in these same areas. 80% of the region's employment is currently found within a series of "regional activity centers", or concentrations of employment and housing identified by the TPB. Seventy percent of regional employment growth to 2030 is planned to take place within or directly adjacent to those centers, as well as thirty-six

percent of household growth.<sup>10</sup> Under current zoning, far more workers are projected to arrive in the region than there will be homes built for them, and transport links will not be adequate for them to commute from outside the region.<sup>11</sup> The COG Board of Directors has concluded that some land will need to be replanned and re-zoned to accommodate sufficient housing to meet employment projections. If redevelopment occurs in ways that are consistent with the TPB Vision, creating activity centers that mix jobs, housing and services in a walkable environment, conditions will be favorable for growth in walking and bicycling.

<sup>10</sup> www.mwcog.org/planning

<sup>11</sup> Metropolitan Washington Council of Governments, *Growth Trends to 2030: Cooperative Forecasting in the Washington Region,* October, 2005. Pp. 2, 14-15.

#### **Data Sources**

Major sources of data for bicycling and walking in the Washington region include the US Census, the Commuter Connections State of the Commute Survey, the 1994 COG household travel survey, COG's cordon counts, pedestrian and bicycle crash data from the Departments of Transportation, WMATA's 2002 Rail Passenger Survey, and the 2004 Bike to Work Day Survey.

#### A. 2000 US Census

The most fine-grained data on travel behavior comes from the Census. Every 10 years the Census Bureau asks roughly one in seven individuals (those who fill out the 'long form') how they get to work. People are polled at their home, not at their place of work. The most recent data available is from the 2000 Census. The biggest limitation of the Census data is that it only contains commute trips. Only one quarter of all trips in the Washington region are commute trips.<sup>12</sup> However, commute trips occur at the most congested time of day.

#### B. 2002 COG Cordon Counts

COG's cordon counts are conducted by machine or in person, on specific roads or trails. In cordon counts, COG counts the volume of traffic crossing a series of points along an imaginary circle. For example, one cordon line is the Capital Beltway. At approximately 60 points along the Beltway, COG counts all vehicles crossing over or under the Beltway. Another cordon line is known as the Metro Core, circling downtown DC and part of Arlington. Counts take place on a single day, so results may vary widely depending on weather, transportation incidents, security emergencies, or other factors. Pedestrians are not counted. Bicyclists crossing the cordon line may or may not be commuters; they are counted but not stopped or asked their trip purpose. In most cases the numbers represent only one day of counting and can not be viewed as a daily average.

#### C. 2004 Commuter Connections State of the Commuter Survey

The State of the Commute (SOC) survey is a random sample survey of 7,200 employed persons in the 12 counties and four independent cities of the Washington Metropolitan designated non-attainment region. Commuter Connections commissions this survey in order to evaluate the effectiveness of its programs. The region polled is the Washington

<sup>12</sup> National Capital Region Transportation Planning Board, 1994 COG/TPB Household Travel Survey: Summary of Major Findings. January, 1998. Page 4.

Metropolitan Statistical Area, shown in figure i-1 on page i-4. The sample size of the State of the Commute Survey permitted the calculation of walk/bike mode shares by annual income, ethnicity, age, and state of residence.

The SOC survey does not provide any information on non-work trips. Surveys were carried out from February 7<sup>th</sup> to May 2<sup>nd</sup>, 2004, by telephone, and asked about behavior "last week". This methodology differs somewhat from U.S. Census, which asks about behavior during the first week in April. The 2001 and 2004 SOC surveys show lower numbers for walking and bicycling than does the census.

### D. 1994 COG Household Travel Survey

In 1994 consultants for the Metropolitan Washington Council of Governments conducted a survey of more than 11,000 persons in 4,800 households throughout the Metropolitan Washington region, about trips made on a randomly assigned weekday for their household. The survey was conducted in two waves, the first in May and June of 1994, the second in October and November of 1994. In each wave of the survey randomly selected Washington area households were contacted by telephone and asked to participate in a one-day travel survey. Those households agreeing to participate were sent a travel survey packet containing information on the survey and a travel diary for each member of the household age 5 and older. Instructions in the survey packet asked all eligible household members, age 5 or more, to record in the enclosed travel diaries all trips made on a specific weekday that had been randomly selected for their household. Reminder cards were sent and phone calls made. Then beginning on the day after the travel day consultant staff began calling each participant household to obtain a telephone report of all trips made by each household member on the household is travel survey day. The net response rate was 40%.

The data collected in the COG Household Travel Survey is used to develop an understanding of the basic factors that determine the amount and nature of daily travel in the Metropolitan region. They are also used to predict changes in daily travel patterns in response to current development trends and changes in regional transportation policies and programs.

### E. 2002 WMATA Rail Passenger Survey

WMATA carried out a survey of rail passengers in 2002. Surveys were carried out between April 8 and May 22, 2002. Data were collected for the full day, divided into a.m. and p.m. peak and off-peak periods. Subjects were interviewed in Metro rail stations. The primary purpose of the survey was to allow WMATA to estimate the percentage of total ridership residing in jurisdiction. However, the survey also asked riders what mode of transportation

they used to access or egress the station. 57,700 responses were gathered.

### F. 2004 Bike to Work Day Survey

The Bike to Work Day survey is a survey of participants in the regional Bike to Work Day of May 7, 2004. It is not a random sample, but it provides a portrait of a self-selected group of cyclists. In November, 2004 COG mailed surveys to all 4,200 registered participants, and got back 1,240 completed surveys, a response rate of 30%.

Participants in Bike to Work Day often rode considerable distances for the event, with 18% riding 10-15 miles, and another 12% riding more than 15 miles. However, the post-ride survey indicates that people may be willing to ride farther for a one-day event than they will on a daily basis. Several months after the event participants were asked if they still biked to work, and if not why not. Of the 354 respondents who did not continue riding to work after participating in Bike to Work Day, 42% cited weather, while another 35% cited lack of a safe route, 31% cited distance, 18% cited lack of showers or changing facilities, 10% cited lack of bike parking/storage, and 8% cited the need for a car to take care of personal business.

## **Chapter 3** Pedestrian and Bicycle Safety

#### Overview

Pedestrian and bicycle fatalities and injuries are a serious problem in the Washington region. Nearly a quarter of all traffic fatalities in the region are pedestrian or cyclist. Every jurisdiction has a significant pedestrian safety problem. Pedestrian and bicyclist fatalities account at least 10% of total traffic fatalities in every major jurisdiction.

While are areas and demographic groups are affected, some groups are more affected than others. Urban areas and inner suburban areas are more heavily affected than the outer suburbs, Hispanics and African-Americans more than Whites and Asians.

This section will describe the scope of the pedestrian and bicycle safety problem, its distribution across the region by jurisdiction and ethnicity, and the legal rights and responsibilities of drivers, pedestrians, and bicyclists. It will also discuss the region's efforts to deal with the problem through the "Street Smart" pedestrian and bicycle safety campaign.

#### The Scope of the Problem

Pedestrian safety is a major problem nationally and in the Metropolitan Washington region. Of 42,643 traffic fatalities in the United States in 2003, 4,749, or about 11%, were pedestrians. <sup>1</sup> Urban areas have higher pedestrian fatality rates than rural areas. The Washington-Baltimore region ranks 22nd out of the 50 largest metropolitan areas in terms of pedestrian deaths per capita.

Pedestrians and bicyclists account for nearly a quarter of those killed on the roads in the Washington region. Over 2600 pedestrians and bicyclists are injured every year, and 89 are killed. On average, there are 370 traffic fatalities per year in the Washington region.<sup>2</sup> Chart 3-1 shows average annual pedestrian and bicycle fatalities in the Washington Region, as a proportion of total traffic fatalities.

<sup>&</sup>lt;sup>1</sup> <u>www.nhtsa.dot.gov</u>

<sup>&</sup>lt;sup>2</sup> Regional totals compiled from data provided by the District Department of Transportation, the Maryland Office of Highway Safety, and the Virginia Department of Motor Vehicles.

### **CHAPTER 3: PEDESTRIAN AND BICYCLE SAFETY**

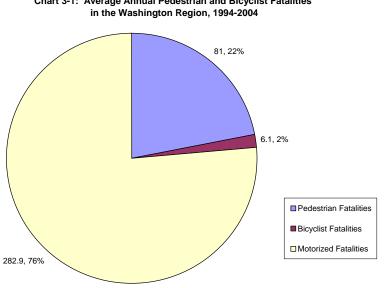


Chart 3-2 shows the yearly variations in traffic fatalities from 1994-2004. Overall traffic fatalities were stable, and pedestrian and bicycle fatalities showed a slight downward trend. However, population and vehicle-miles traveled rose significantly during the period, while the mode share of walking fell.

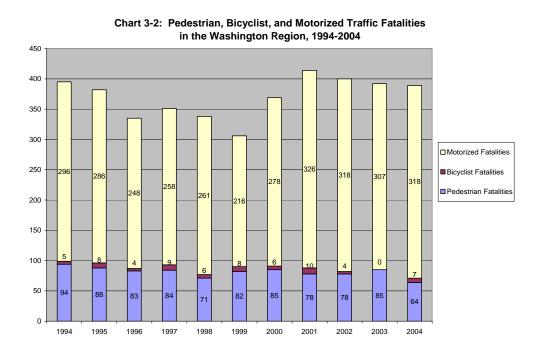
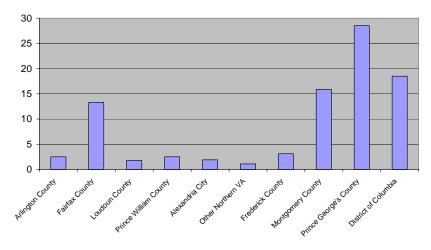


Chart 3-1: Average Annual Pedestrian and Bicyclist Fatalities

Pedestrian injuries exact a steep toll as well. Of the approximately 3000 persons hit by motor vehicles every year in the region, 90% suffer some sort of injury. Approximately 500 injured pedestrians every year require more than 24 hours of hospitalization, which at an average cost of about \$25,000 leads to more that \$12 million in hospitalization charges alone.<sup>3</sup> This is probably only a fraction of the total financial costs, which would include costs for those hospitalized for less than 24 hours, further medical care, disability, and lost time at work. Many of the people being hit can ill afford such a setback.

#### Distribution of Pedestrian and Bicycle Fatalities by Jurisdiction

The region is often divided into an urban core, consisting of Arlington, Alexandria and the District of Columbia, the inner suburbs of Fairfax, Montgomery, and Prince George's Counties, and the outer suburbs, such as Frederick, Loudoun, and Prince William Counties. Manassas, Manassas Park, the City of Falls Church, and the City of Fairfax are shown as "Other Northern Virginia".<sup>4</sup> Outer suburban jurisdictions had fewer pedestrian fatalities than inner jurisdictions, as seen in Chart 3-3.





Even when calculated as a rate per 100,000 population, outer suburban jurisdictions had lower fatality rates than inner jurisdictions, a difference that probably reflects the lower pedestrian and bicycle mode share of the outer jurisdictions, as well as a daytime

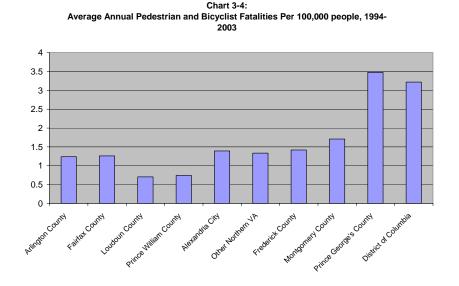
<sup>&</sup>lt;sup>3</sup> Northern Virginia Injury Prevention Prevention Center, INOVA Regional Trauma Center (2005). *Pedestrian Injury in the Washington, D.C. Metropolitan Region.* Page 37.

<sup>&</sup>lt;sup>4</sup> Towns in Northern Virginia are not included in the surrounding Counties; their traffic fatalities are tallied separately.

### CHAPTER 3: PEDESTRIAN AND BICYCLE SAFETY

population in the District of Columbia nearly twice as high as its resident population. Pedestrian and bicycle fatality rates in each jurisdiction are shown in Chart 3-4.

However, even the outer suburban jurisdictions have a serious pedestrian safety problem. In no major jurisdiction were pedestrian and bicyclist fatalities less than 10% of total traffic fatalities.



Walking and bicycling appear to be safer in the urban core than in the inner or outer suburbs. The rate of pedestrian fatalities does not directly correspond to the number of people walking. Urban core residents are four to six times as likely to walk to work as outer jurisdiction residents, but are only twice as likely to be killed in a pedestrian or bicycle crash. And as previously noted, the urban core's fatality numbers probably include many non-resident workers and tourists. *Hispanics a* 

The urban core has good pedestrian facilities, low traffic speeds, and drivers expect to see pedestrians and bicyclists. Hispanics are three times as likely as Whites to be hospitalized for a Pedestrian Injury

There are large differences in the rates of hospitalization for pedestrian injury by ethnicity. The rate of hospitalization/100,000 population for pedestrian injuries for Hispanics is nearly three times

as high as that for Whites, and twice that for h African-Americans.<sup>5</sup>

Pedestrians Find Safety in Numbers

Geographically, the highest rates of hospitalization are found in the area east of the Anacostia river in the District of Columbia, most of Prince George's County inside the beltway, the Columbia Pike corridor in Arlington, the area between Fairfax City and Falls Church in Fairfax

<sup>&</sup>lt;sup>5</sup> Northern Virginia Injury Prevention Prevention Center, INOVA Regional Trauma Center (2005). *Pedestrian Injury in the Washington, D.C. Metropolitan Region.* Page 35.

County, and Dumfries in Prince William County.<sup>6</sup>

Other things equal the pedestrian crash rate tends to fall as the number of pedestrians at a location increases. There is safety in numbers. Doubling the number of pedestrians at an intersection already crowded with pedestrians will usually result in little, if any increase in pedestrian crashes.<sup>7</sup> Similar effects have been noted for cyclists, with cities having the highest rates of bicycling also having the lowest crash rate per bicycle trip.<sup>8</sup> If more people walk and bike it will become safer, especially if facilities are improved and other measures are taken to improve pedestrian and bicycle safety. High levels of walking and bicycling are associated, in advanced industrialized nations, with very low auto-involved crash rates.<sup>9</sup> Holland has half the overall traffic fatality rate of the United States, despite a very high walk and bike mode share.

Experience of other nations shows that it is possible to reduce pedestrian and bicycle fatalities while increasing walking and bicycling. On the other hand, it is not possible to eliminate pedestrian fatalities by eliminating pedestrian facilities and discouraging walking – even in our least pedestrian-oriented jurisdictions pedestrian fatalities account for at least 10% of total traffic fatalities. For the foreseeable future there will be people without cars, and there will always be some trips that will be made on foot. The region's most dangerous areas for walking have high-speed roads and poor pedestrian facilities, together with people who lack automobiles.

#### **Factors contributing to Pedestrian and Bicycle Crashes**

Data from the Washington region indicate that drivers are about as likely as pedestrians to be at fault in a crash. Drivers were cited for a violation in about half the crashes.<sup>10</sup> Males aged 25 to 34 are most likely to hit pedestrians, while pedestrians who are hit are most likely to be males aged 25 to 44. Pedestrian crashes are most likely to occur at the evening rush hour, 5-7 p.m., with 6-9 a.m. the second most likely.<sup>11</sup> Alcohol is a serious problem for both pedestrians and motorists, affecting approximately one third of crashes.

#### Legal Status of Bicyclists and Pedestrians

Bicyclists are considered drivers of vehicles under most circumstances, and have the same rights and responsibilities as operators of motor vehicles. Bicyclists must ride in

<sup>&</sup>lt;sup>6</sup> Ibid, pp. 40-42.

<sup>&</sup>lt;sup>7</sup> Raford, Noah. *Space Syntax: An Innovative Pedestrian Volume Modeling Tool for Pedestrian Safety.* Presented at the 2004 TRB Conference, January, 2004. (TRB2004-000977) p. 8.

<sup>&</sup>lt;sup>8</sup> Denmark Ministry of Transport (1994) Safety of Cyclists in Urban Areas: Danish Experiences.

<sup>&</sup>lt;sup>9</sup> Pucher, John. "Making Walking and Bicycling Safer: Lessons from Europe," *Transportation Quarterly*, Summer 2000.

<sup>&</sup>lt;sup>10</sup> INOVA study, page 23.

<sup>&</sup>lt;sup>11</sup> Ibid, page 12.

### CHAPTER 3: PEDESTRIAN AND BICYCLE SAFETY

the same direction as traffic, use lights after dark, and yield to pedestrians. Like operators of other slow-moving vehicles, cyclists should generally ride as far to the right as is practicable, except when preparing to turn left, passing, or when obstacles or pavement conditions make riding on the right unsafe or impractical. Cyclists may use the full travel lane if the lane is too narrow to allow them to ride to the right of motor vehicles safely. Cyclists may usually ride on paths and sidewalks, except where prohibited. Cyclists have the rights and duties of pedestrians when traveling on paths and sidewalks, however, they must yield to pedestrians in those locations. Rules relating to bicycles are summarized on page E-4 of the Council of Governments' Bike to Work Guide, and in Table 3-1 below.<sup>12</sup>

	MARYLAND	DISTRICT OF COLUMBIA	VIRGINIA
Bicycle Position	Bicycle as close to the right as practicable, except when turning left, passing, or on a one way street	Bicycle in the right most lane available for traffic, or as close as practicable to the right-hand curb or edge of the roadway, except when turning left or passing	Bike as close to the right as practicable, except when turning left, passing, or avoiding hazards or traffic in mandatory turn lane. Does not apply in lanes too narrow to share with motor vehicle.
Passing cars	Pass on left; not required to pass on left on one-way street or when passing vehicle turning left.	Pass on the left; may pass on right when automobile is trying left or when street is of sufficient width for two lines of moving vehicles.	Permitted to pass on right or left, pass in same lane or change lanes, or pass off road.
Bicycling Two Abreast	Permitted when it does not endanger bicyclists or impede traffic	Same as MD>	Banned except on bike paths or parts of highways designated for bikes.
Turning left	From two-way to two-way streets; enter and leave intersection near center line of roadway. One-way to one-way; keep as close as practicable to left curb.	Same as MD.	Three ways permitted: like a motorist, pedestrian, and crosswalk.
Turning right	Stay as close as practicable to right-hand curb.	Same as MD.	Same as MD.
Restricted Roads	Prohibited from expressways, toll bridges, toll tunnels, and other marked roads.	No restricted roads. Bicyclists also allowed in bus lanes.	Prohibited from interstate and controlled access highways, as marked.

### Table 3-1: Selected Bicycle Rules in the Washington Area

<sup>12</sup> www.mwcog.org/commuter/Bdy-bike2.html.

### **Bicycle and Pedestrian Plan for the National Capital Region** Draft 06/15/06

### CHAPTER 3: PEDESTRIAN AND BICYCLE SAFETY

	Maryland	District of Columbia	Virginia
Cycling on Sidewalks	Banned except where allowed by local jurisdictions (allowed in Montgomery County)	Allowed except in the central business district, which is bounded by 23rd St NW, Massachusetts Ave, 2nd St NE-SE, D St SE to 14th St NW and Constitution Ave to 23rd St NW. Allowed where posted in this area	Allowed except where prohibited by local jurisdictions, such as Prince William County and Alexandria.
Mandatory Use of Bike Paths and Lanes	Use of bike lanes required when available. No required use of separated paths. Must use shoulder when speed limit is over 50 mph and when shoulder is as smooth as road	Not required	Localities (such as City of Alexandria) may require use of bike paths when adjacent to road
Helmets	Required for cyclists aged 15 and under	Not required	Required for cyclists age 15 and under in Arlington County, Fairfax County and City of Alexandria.
Lights	Front light required when dark.	Front light required when dark.	Front light required when dark.

Pedestrians are not vehicle operators and are not subject to the same rules. Persons on rollerblades, skateboards, etc. operating on the street are considered pedestrians, but bicyclists are not. Motorists must yield to pedestrians when making turns across adjacent crosswalks. "Jaywalking" is legal in most locations, but pedestrians must yield to motorists if they are crossing at a location other than a crosswalk. Pedestrians may not cross at mid-block if they are between two signal-controlled intersections; they must use the crosswalk. Tables 3-2 and 3-3 summarize the rules in each state regarding pedestrians.

 Table 3-2:

 Pedestrian Traffic Law—Motor Vehicles Drivers

	MARYLAND	DISTRICT OF COLUMBIA	VIRGINIA <sup>13</sup>
Crosswalk Definition	Any intersection of two roadways is a legal crosswalk, whether marked or not. Pedestrians have the same rights in marked crosswalks as in unmarked crosswalks	Same as Maryland	Same as Maryland

<sup>13</sup> <u>http://virginiadot.org/infoservice/bk-laws.asp, www.bikewalkvirginia.org</u>

### **Bicycle and Pedestrian Plan for the National Capital Region** Draft 06/15/06

### CHAPTER 3: PEDESTRIAN AND BICYCLE SAFETY

	Maryland	District of Columbia	Virginia <sup>14</sup>
Blocking a Crosswalk	A motorist may not park or stop in a crosswalk	Same as Maryland	Same as Maryland
Sidewalk	Pedestrians have the right of way in the sidewalk	Pedestrians have the right of way in the sidewalk. Parking on the sidewalk prohibited.	Pedestrians have the right of way in the sidewalk.
Right Turn on Red	Vehicles turning right on red must yield to pedestrians in the crosswalk	Same as Maryland	Same
Turn on Green	Vehicles turning either right or left on a green light must yield to pedestrians in the adjacent crosswalk	Same	Same
Red Light	Motorist should stop before the crosswalk, or if no crosswalk is striped, before the intersection	A pedestrian who has begun crossing on the walk signal shall be given the right-of-way by the driver of any vehicle to continue to the opposite sidewalk or safety island, whichever is nearest.	Same as Maryland
Stop-Controlled or Uncontrolled Intersection	Motorist must stop for any pedestrian in the same half of the roadway as the motorist, or who is approaching from the adjacent lane in the other half of the roadway. No motorist may pass another vehicle which has stopped for a pedestrian	The driver of a vehicle shall <b>STOP</b> and give right of way to a pedestrian crossing the roadway within any marked crosswalk or unmarked crosswalk at an intersection.	The drivers of vehicles entering, crossing, or turning at intersections shall change their course, slow down, or <i>stop if necessary</i> to permit pedestrians to cross such intersections safely. Pedestrians have the right of way unless the speed limit is more than 35 mph, in which case the motorist has the right of way.

Table 3-3:Pedestrian Traffic Law—Pedestrians

	MARYLAND	DISTRICT OF COLUMBIA	VIRGINIA
Green light	A pedestrian facing a green light (other than a turn arrow) may cross the roadway, within a marked or an unmarked crosswalk	Same as Maryland	Same as Maryland

<sup>14</sup> http://virginiadot.org/infoservice/bk-laws.asp, www.bikewalkvirginia.org

### **Bicycle and Pedestrian Plan for the National Capital Region** Draft 06/15/06

### CHAPTER 3: PEDESTRIAN AND BICYCLE SAFETY

	Maryland	District of Columbia	Virginia
Red light	Pedestrians shall not enter the roadway on a steady red light	Same as Maryland	Same as Maryland
Pedestrian Control Signal	Pedestrians shall not enter the roadway when there is a flashing "Don't Walk" or "Wait" indicator	Same as Maryland	Same as Maryland
Stop-controlled or uncontrolled intersection	Pedestrians may cross the roadway within a marked or unmarked crosswalk	Same as Maryland	Same as Maryland, except the pedestrian must yield to motor vehicle traffic if the speed limit is 35 mph or more. Pedestrians may not disregard approaching traffic when entering or crossing an intersection
Crossing at Other Than Crosswalks	<ul> <li>(a) If a pedestrian</li> <li>crosses a roadway at any</li> <li>point other than in a</li> <li>marked crosswalk or in an</li> <li>unmarked crosswalk or in an</li> <li>unmarked crosswalk at an</li> <li>inter section, the</li> <li>pedestrian shall yield the</li> <li>right-of-way to any</li> <li>vehicle.</li> <li>(b) If a pedestrian</li> <li>crosses a roadway at a</li> <li>point where a pedestrian</li> <li>tunnel or overhead</li> <li>pedestrian crossing is</li> <li>provided, the pedestrian</li> <li>shall yield right of way to</li> <li>any vehicle.</li> <li>(c) Between adjacent</li> <li>intersections at which a</li> <li>traffic control signal is in</li> <li>operation, a pedestrian</li> <li>may cross a roadway only</li> <li>in a marked crosswalk.</li> <li>(d) A pedestrian may</li> <li>not cross a roadway</li> <li>intersection diagonally.</li> </ul>	Essentially the same as Maryland, but with a specific prohibition on walking suddenly into the path of a vehicle: (a) No pedestrian shall suddenly leave a curb, safety platform, safety zone, loading platform or other designated place of safety and walk or turn into the path of a vehicle which is so close that it is impossible for the driver to yield.	Same as Maryland, except that pedestrians may not enter the roadway at any point where drivers view of them is blocked by a parked vehicle or other obstruction.
Pedestrians on Roadways	<ul> <li>(a) A pedestrian may not walk on a roadway where sidewalks are provided.</li> <li>(b) Where no sidewalk is provided, a pedestrian may walk only on the left side of the roadway, facing traffic.</li> </ul>	Same as Maryland	Same as Maryland

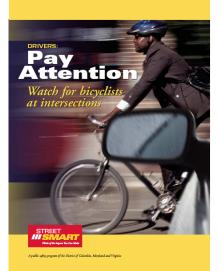
### CHAPTER 3: PEDESTRIAN AND BICYCLE SAFETY

#### Pedestrian and Bicyclist Enforcement and Education: The "Street Smart" Campaign

Pedestrian and bicycle safety efforts generally fall into three broad categories of actions, the three E's: Engineering, Education, and Enforcement. Engineering deals with the design of safer roads, streets, and pedestrian and bicycle facilities. Education includes both classroom-based training and behavioral modification campaigns. Enforcement consists of enforcement of the traffic laws with respect to pedestrians and bicyclists. The regional pedestrian and bicycle safety campaign, Street Smart,

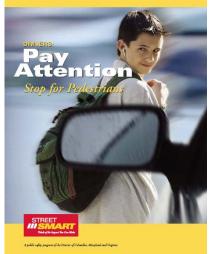
deals primarily with education through mass media.

Street Smart was created in 2002 by the region's governments in response to an ongoing regional pedestrian and bicycle safety problem. Since the region is a single media market, a unified regional campaign is the most cost-effective approach. The program is supported by federal funds made available through state governments, with local funds matching the federal funds, and is administered by the National Capital Region



Transportation Planning Board.

The Street Smart campaign is a onemonth blitz of radio, transit, and print advertising. The goal of the campaign is to change driver and pedestrian



behavior in order to reduce deaths and injuries. Motorists are urged to "Stop for Pedestrians" and "Watch for Bicyclists at Intersections," pedestrians are urged to "Look Before You Cross". All materials, including radio spots, are translated into Spanish. One-month campaigns were held in October, 2002, and annually since 2004.

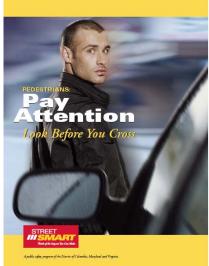
Efforts to enforce pedestrian laws have also been stepped up in conjunction with the "Street Smart" pedestrian and bicycle safety campaign. Law enforcement has helped reinforce the

campaign message, just as it has been used effectively as part of anti-drunk driving and seatbelt advertising campaigns. Public awareness of these heightened enforcement activities has been a key aspect of this campaign. Research shows that fear of fines and legal consequences is more effective at changing behavior than fear of death or injury. Also the TV and press media often covers enforcement stings, increasing the public's perception that they are likely to be ticketed for breaking the law.

#### **Evaluation Results**

Evaluation results show that the prime target audience, male drivers aged 18 to 34, is hearing the message. For example, surveys taken before and after the campaign April, 2004 show that awareness of the Street Smart messages rose by 22 percentage points among male drivers aged 18 to 34. There is some evidence that drivers are more likely to yield to pedestrians, and that pedestrians are becoming more careful. Specifically, in May 2005:

- 17% of respondents reported that they "had to swerve to avoid a pedestrian in the last 7 days", down from 32% in 2002
- 60% reported frequently observing motorists failing to yield to pedestrians, down from 76% in 2002



Pedestrian and Bicyclist fatalities in the Washington region fell from 2001-2004. The average fatality rate for 1994-2004 was 87. Table 3-3 shows the pedestrian and bicyclist fatalities for the region from 2001-2004.<sup>15</sup>

	Table 3-4				
Year	2001	2002	2003	2004	
Fatalities	88	82	86	71	

#### Outlook

Pedestrian and bicycle safety has drawn increasing attention in the Washington region and at all levels of government. The Street Smart campaign is yielding positive results. Better vehicle-pedestrian crash-compatibility, safer street design, retro-reflective clothing, and safer pedestrian and driver behavior will help reduce pedestrian and bicycle fatalities and injuries.

On the other hand, as the region's population and density increase, including growing numbers of immigrants and others for whom walking and bicycling are a primary mode of transportation, preventing pedestrian and bicyclist fatalities and injuries will remain a major challenge.

<sup>&</sup>lt;sup>15</sup> DDOT,MHSO,VDMV

## Chapter 4

Existing Facilities for Bicyclists and Pedestrians

### **Bicycle and Pedestrian Plan for the National Capital Region**

Draft 06/15/06

### CHAPTER 4: EXISTING FACILITIES FOR BICYLING AND WALKING

### Overview

The Washington region has excellent long-distance separated facilities for bicyclists and pedestrians, and an urban core and certain regional activity centers that have good pedestrian and bicycle facilities. On the other hand, many activity centers, not originally



designed with pedestrians in mind, have grown dense enough in to generate significant pedestrian traffic, and face challenges in terms of providing safe facilities and crossing locations for pedestrians and bicyclists. Other parts of the region have developed at low densities, with separated land uses and indirect routes, which increase pedestrian and bicycle travel time. Pedestrian and bicycle accommodations are not always provided.

Bicycle connections with transit are generally good, with bicycle parking, bus bicycle racks, and bikes permitted on Metrorail at most hours.

Informal Foot-Paths Show where People are Walking Walking is the primary mode of access to transit. Conditions for pedestrian access are excellent at many rail stations, though at some rail stations, originally designed primarily with auto and transit access in mind, pedestrian access could be improved. Bus stops in places originally designed primarily for automobiles often have access and safety problems.

Pedestrians are found throughout the region, and pedestrian traffic is increasingly found in places that were not built for it. This section highlights some of the region's successes in providing for bicycling and walking. These successes can serve as examples of what the region needs to serve its pedestrians and bicyclists.

#### **Shared-Use Paths**

The Washington region is renowned for the quality and extent of its major shared-use paths. Shared-use paths are typically located in their own right-ofway, often a canal, railway, or stream valley, or in the right-of-way of a limited-access highway or parkway, such as the George Washington Memorial Parkway. Shared-use paths



#### Draft 06/15/06

### CHAPTER 4: EXISTING FACILITIES FOR BICYLING AND WALKING

are eight to twelve feet in width. The region has approximately 190 miles of major shared-use path, either paved or level packed gravel surface suitable for road bikes. Well-known trails include the W&OD and Mount Vernon Trails in Virginia, and the C&O Canal, Capital Crescent, and Rock Creek Trails connecting the District of Columbia and Maryland. Many of the region's shared-use paths go through heavily populated areas, connect major employment centers, and get significant commuter traffic. More information on trails in the Washington region can be found at www.bikewashington.org.

The region continues to build new trails along stream valleys and in conjunction with major highway projects, but the remaining inventory of disused rail lines, which often provide the best opportunities for shared-use paths, is fairly small.

### Side-Paths

Side-paths differ from shared-use paths in that they do not have their own right of way, but are closely adjacent to a non-limited access roadway, and thus subject to more frequent conflict with driveways, side streets, and turning traffic. Side-paths differ from sidewalks in that they must be at least eight feet wide, and in that they are designed to meet the needs of bicyclists.

The Washington region has approximately 300 miles of side-paths, and there are plans to expand that mileage considerably.

Side-paths meet the need for a separated pedestrian facility, as well as providing separation from traffic valued by child and slow-moving cyclists, especially in places where the road has speeds of 40 mph or more and high traffic volumes. However, the AASHTO (American Association of State Highway



and Transportation Officials) Guide for the Development of Bicycle Facilities offers a number of cautions regarding the use of side-paths or wide sidewalks for bicycles. Frequent driveways, especially with poor sightlines, are hazardous to bicyclists on sidepaths. Side-paths remove bicyclists from the motorists' line of sight and allow travel against the flow of traffic, so they may increase the potential for conflicts with motor vehicles at intersections. Since the facility is shared with pedestrians, there is also a potential for cyclist-pedestrian crashes. Side-paths are most suitable where driveways and intersections are few and sight-lines are good. Intersection crossings should be designed carefully, with a protected signal phase providing the best level of protection.

### **Bicycle Lanes**

### **Bicycle and Pedestrian Plan for the National Capital Region**

#### Draft 06/15/06

### CHAPTER 4: EXISTING FACILITIES FOR BICYLING AND WALKING

Bicycle lanes are marked lanes 4-6 feet wide in the public right-of-way that are by law exclusively or preferentially for use by bicyclists. Bike lanes are marked with bicycle symbols and arrows, which indicate the correct direction of travel. Bike lanes are provided on both sides of the street, except for one-way streets, and allow travel only in the same direction as adjacent motor vehicle traffic. On-street bicycle lanes are generally much less expensive than separated paths. Bike lanes decrease wrong-way riding, define the road space that cyclists are expected to use, increase cyclists' comfort level, and call attention to the presence of cyclists on the roadway. Bicycle lanes are not generally considered safe or adequate for pedestrians, though in rural areas without sidewalks the roadway shoulder serves as both a bicycle lane and as a pedestrian facility.



The number of bicycle lanes is growing rapidly. The District of Columbia currently has 19 miles of bicycle lanes, up from three in 1995, and Arlington County has 20 miles, up from three in 1995, and Montgomery County has 17 miles.<sup>1</sup> The regional mileage of bicycle lanes can be expected to expand significantly in the future as the District of Columbia, Arlington County, and Montgomery County all have ambitious plans to build more bicycle lanes. A map of regional bicycle paths,

lanes, and on-road routes can be ordered at <u>www.adcmap.com</u>.

### **Dual Facilities**

In recognition of the fact that fast-moving cyclists may be better off with an on-road facility, Montgomery County is planning many of its bicycle routes as dual facilities, with both an on-road bike lane and a side-path for pedestrians and slow bicyclists. VDOT's Northern Virginia Bikeway and Regional Trail Study recommends that both on and off-road accommodation be provided.<sup>2</sup> Under the new routine accommodation policy, VDOT is to provide adequate facilities for pedestrians and bicyclists even if not called for in the local plan.

Where bicycle and pedestrian volume warrant it, and right of way permits, multi-use paths may be split into parallel pedestrian and bicycle paths. This separation allows cyclists and rollerbladers to maintain speed without risk to pedestrians. The Washington & Old Dominion Trail in Northern Virginia includes several sections with gravel pedestrian paths that parallel the paved shared-use path.

<sup>&</sup>lt;sup>1</sup> *Countywide Bikeways Functional Master Plan*, March 2005. Maryland-National Capital Park and Planning Commission. Page 12.

<sup>&</sup>lt;sup>2</sup> Northern Virginia Regional Bikeway and Trail Network Study. November, 2003. Virginia Department of Transporation, Northern District Office. Page 19.

### CHAPTER 4: EXISTING FACILITIES FOR BICYLING AND WALKING

#### Draft 06/15/06

### Signed Bicycle Routes

The region has hundreds of miles of signed bicycle routes. Signed routes have the advantage of being inexpensive and informative for cyclists. A signed route has not necessarily had any bicycle-related improvements apart from signing. However, bicycle-friendly features such as paved shoulders, a wide curb lane, or low traffic volumes or speeds *may* be present.

#### **Long-Distance Bicycle Routes**

Several notable long-distance routes promoted by national-level organizations pass through the Washington region. These include the East Coast Greenway, Bicycle Route 1, and the American Discovery Trail. The East Coast Greenway Alliance is promoting what will eventually be a mostly off-road path connecting all the major cities of the East Coast. Currently 20 percent open for public use, it will span 2,600 miles from Calais, Maine to Key West, Florida. With the exception of the National Capital Mall, the proposed route through the Washington region is not yet signed. Bicycle Route 1 is part of a national network of low-traffic road routes promoted by the Adventure Cycling Association. The American Discovery Trail is a coast-to-coast, recreational, nonmotorized trail, which follows the C&O Canal Towpath and the Anacostia River Tributary Trails. All organizations promoting long-distance routes rely on local agencies and organizations to realize their vision.

#### **Exclusive Bus/Bicycle Lanes**

Exclusive bus lanes are sometimes used on streets with heavy bus traffic. Bicycles are sometimes permitted to use those lanes. Bus/Bike Lanes can be found in the District of Columbia. Conflicts can occur due to differences in speed between buses and bicyclists.

#### Bridges

Currently the southernmost opportunity for cyclists and pedestrians to cross the Potomac is at the 14<sup>th</sup> Street Bridge. When the Woodrow Wilson Bridge project is finished, bicyclists and pedestrians will be able to cross the Potomac on the capital beltway at Alexandria. The Memorial Bridge, the Theodore Roosevelt Bridge, the Key Bridge, and the Chain Bridge all have bicycle and pedestrian facilities. To the north cyclists and pedestrians may use the ferry at White's Ferry, which connects Montgomery County and Loudoun County. Cyclists may use the US 15 bridge at Point of Rocks and the MD 17 bridge at Brunswick to get cross between Frederick County and Loudoun County, though they have no separated facilities.

On the Anacostia river separated bicycle and pedestrian facilities of uneven quality are available on the South Capitol Street (Frederick Douglas Memorial) bridge, the 11<sup>th</sup> Street bridge, the Pennsylvania Avenue Bridge, the East Capitol Street Bridge, and the

#### Draft 06/15/06

### CHAPTER 4: EXISTING FACILITIES FOR BICYLING AND WALKING

Benning Road Bridge. The District of Columbia plans to upgrade these crossings as the Anacostia waterfront is developed.

### **Bicycles and Public Transit**

The region has made tremendous progress integrating bicycling and public transit, with secure bike parking available at most rail stations, bicycles permitted on Metrorail at most times, and most of the buses in the region now equipped with bicycle racks. Specific agency policies and facilities are described below.

### Rail

Bicycles are allowed on Metrorail at any time except weekdays from 7 to 10 a.m. and 4 to 7 p.m., and Fourth of July. No permit is required. Only folding bicycles fully enclosed in a carrying case are permitted on MARC and VRE. Folding bicycles are allowed on Metrorail during rush hour if fully enclosed.

Bicycle racks or lockers are available at most Metrorail stations. Table 3-1 in Appendix I shows the number of lockers and rack spaces at each metro station. As of April, 2004 WMATA had 1,141 locker and 1,183 rack bicycle parking spaces at Metrorail stations. Racks are first-come, first served.<sup>3</sup>

All VRE stations and most MARC stations have bicycle racks.

#### Bus

Metrobuses all have racks on the front that carry not more than two bicycles. No permit is required. Information on how to use bus bike racks is available at <u>www.waba.org</u>. Folding bicycles are not allowed inside Metrobuses.

Montgomery County Ride-On, Arlington Transit, and Annapolis Transit buses are all equipped with bicycle racks, as are many Maryland Transit Administration buses.

#### Park and Ride

<sup>&</sup>lt;sup>3</sup> Details on bicycle parking locations and locker rental can be found at <u>http://www.wmata.com/Metrorail/bikeracks.cfm</u>

#### Draft 06/15/06

### CHAPTER 4: EXISTING FACILITIES FOR BICYLING AND WALKING

Of the 175 park and ride lots in the Washington DC-MD-VA Metropolitan Statistical Area, about 50 have bike lockers or racks.

### **Pedestrian Access to Transit**

82% of Metrobus passengers walk to transit, and 60% of all Metrorail trips start with the passenger walking to the rail station. However, the quality of pedestrian access to Metrorail and Metrobus is uneven. Many suburban rail stations were built with an emphasis on automobile and bus access. Bus stops are often placed in areas with no sidewalks or available crosswalks. Inventorying conditions and making recommendations for specific locations is beyond the scope of this plan, but there have been a number of efforts to do so, such as MTA's Access 2000 Study, the MWCOG's Walkable Communities Workshops, the efforts of the Bike Parking Work Group of the Bicycle and Pedestrian Subcommittee, and efforts in Fairfax County and Montgomery County to improve bus stop safety. WMATA is developing a new set of *Guidelines for Station Site and Access Planning*, and WMATA has plans to upgrade pedestrian access at Metrorail stations and carry out station-area development. WMATA is completing an inventory of existing conditions at bus stops in the region and will have an integrated list of conditions in 2007.

#### Outlook

Facilities for bicycling and walking in the Washington region are likely to improve significantly in the future. Federal, regional, state and local policies and transit agency initiatives all call for better and more complete facilities. Bicycle lanes and dual facilities for pedestrians and bicyclists will become more common.

## Chapter 5

**Best Practices** 

The TPB Vision calls for a transportation system that allows convenient and safe bicycle and pedestrian access, with dynamic regional activity centers and urban core that contain a mix of jobs, housing and services in a walkable environment. In order to achieve these goals, the Bicycle and Pedestrian Subcommittee has developed the following series of recommended best practices for consideration by the member jurisdictions. Many of the member jurisdictions have already implemented some or all of these recommendations.

# A. Enhance agency efforts to incorporate bicycle and pedestrian elements in all jurisdictional planning and design policies.

1. Include bicycling and walking, including provisions for the disabled, in all stages of the transportation and land use planning process, from initial concept through implementation.

The Virginia Department of Transportation (VDOT) is committed to routinely accommodating bicycling and walking "as fundamental travel modes and integral components...in the planning, funding, design, construction, operation, and maintenance of Virginia's transportation network"

2. Consistent with federal policy, establish bicycle and pedestrian ways in all new construction and reconstruction transportation projects in urbanized areas unless one or more of three conditions are met:

a. Bicyclists and pedestrians are prohibited by law from using the roadway. In this instance, a greater effort may be necessary to accommodate bicyclists and pedestrians elsewhere within the right of way or within the same transportation corridor.

- b. The cost of establishing bikeways or walkways would be excessively disproportionate to the need or probable use. Excessively disproportionate is defined as exceeding twenty percent of the cost of the larger transportation project.
- c. Where sparsity of population or other factors indicate an absence of need.
- 3. Take into account likely future demand for bicycling and walking facilities in planning transportation projects and do not adopt designs that would preclude future improvements.



- 4. Encourage public participation by bicyclists and pedestrians and other community groups in the planning process.
- 5. Ensure adequate funding for bicycle and pedestrian transportation staff and facilities, including land acquisition, design, construction, and proper maintenance.

 In 2006, the region budgeted roughly \$69 million for bicycle and pedestrian projects, or about 2.4% of transportation capital expenditures
 Integrate bicycling and a. Require land dev shared-use paths, and bicycl developments.
 B. Require land dev that facilitates internal and e development should feature to minimize trip distance an Superblock and cul do see of

5. Integrate bicycling and walking into new development.

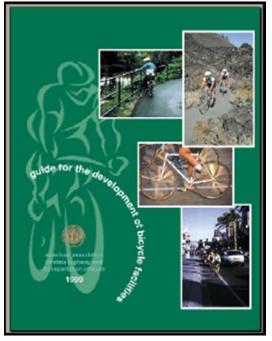
a. Require land developers to finance and construct sidewalks, shared-use paths, and bicycle parking facilities within their developments.

*of* b. Require land developers to design developments in a way that facilitates internal and external bicycle and pedestrian access. New development should feature a dense network of interconnected streets to minimize trip distance and offer many low-speed, low-traffic routes. Superblock and cul-de-sac development patterns should be discouraged, and transit-oriented development should be encouraged.

- 7. Design, construct, operate, and maintain sidewalks, shared-use paths, street crossings (including over- and undercrossings), pedestrian signals, signs, street furniture, transit stops and facilities, and all connecting pathways so that all pedestrians, including people with disabilities, can travel safely and independently.
- 8. Improve inter-jurisdictional coordination to identify, construct and preserve multijurisdictional routes, and provide connecting links for existing routes to assure the establishment of a continuous bicycle and pedestrian transportation system throughout the Washington metropolitan area.
  - a. Identify networks of existing bicycle routes (both on-street and off-street) in the urban core, suburbs, developing fringe, as well as connecting long distance inter-city routes. Ensure that these routes are included in land use and transportation plans, and not eliminated as development occurs.
  - b. Identify shared-use path corridors before they are developed, and preserve opportunities for development as shared-use paths.
  - c. Identify existing physical barriers to bicycling (such as rivers and streams, bridges, railroad tracks, highway crossings, and limited access highways with no crossing route) and identify solutions to overcome them.

# **B.** Develop and adhere to consistent bicycle and pedestrian facility design and construction standards in each jurisdiction:

- 1. Develop guidelines and requirements for on-street/off-street facilities.
- 2. Assure adequate planning, construction and maintenance standards for comfortable and safe bicycling on both on-street routes and off-street paths, as well comfortable and safe walking on paths and sidewalks. Assure that safety is the primary consideration in all design standards.



a. Adopt, as minimum standards for privately and publicly built facilities, the AASHTO *Guide for the Development of Bicycle Facilities*, AASHTO's *A Policy on Geometric Design of Highways and Streets*, and the AASHTO *Guide for the Planning, Design and Operation of Pedestrian Facilities*, the *ADA Accessibility Guidelines* from the U.S. Architectural and Transportation Barriers Compliance Board (Access Board), and the *Manual on Uniform Traffic Control Devices* from the Federal Highway Administration.

b. Establish and maintain minimum design and maintenance standards for each type of facility.

3. Coordinate planning and construction of routes crossing jurisdictional boundaries

a. Implement uniform wayfinding and/or

designation for inter-jurisdictional routes.that will provide easily understood instructions and information.

4. Improve Access for the Disabled to Pedestrian Facilities<sup>1</sup>

The Transportation Planning Board's Access for All Advisory Committee has identified the following recommended best practices for improving access for the disabled to pedestrian facilities. More detailed recommendations can be found in the *ADA Accessibility Guidelines* as noted above. With the exception of hand-rails on steep sidewalks, all of the following practices are legally required under the ADA for all new facilities and all reconstructed facilities:

a. Sidewalks should have curb ramps. Ramps should be well-maintained, wellplaced, and not too steep in order to permit their use by persons in wheelchairs.

<sup>&</sup>lt;sup>1</sup> "Lessons Learned" fact sheet for Disability Awareness Day. National Capital Region Transportation Planning Board Access for All Committee, October 20, 2004.

- b. The height of wheelchair users should be considered when placing shrubs or other objects where they might block them from the view of motorists.
- c. Objects such as security barriers, fences, fire hydrants, telephone poles, parking meters, newspaper boxes, signal control boxes, and other street furniture should be placed in locations where they will not block curb ramps.
- d. The placement of crosswalk buttons must take into consideration the needs of people with disabilities.
- e. Audible pedestrian signals make communities safer for all pedestrians, including seniors and children as well as people with visual impairments.
- f. Sidewalks with steep slopes are difficult for people with disabilities to navigate, especially for people who use manual wheelchairs or people who have trouble walking. Hand rails could help mitigate these difficulties.<sup>2</sup>



Poorly Placed Curb Ramps and Rough Pavement can be Difficult to Navigate in a Wheelchair

#### C. Improve bicycle and pedestrian circulation within and between regional activity centers and the urban core.

- 1. Improve sidewalks, bikeways, intersections, signage and links to transit for bicyclists and pedestrians in activity centers
- 2. Improve access to and between regional activity centers.
  - a. Provide access to activity centers from surrounding neighborhoods.



Metro Station

b. Provide facilities to connect nearby activity centers.

#### Integrate bicycling and walking into the public D. transportation system.

1. Provide safe and convenient access for pedestrians and bicyclists to all Metro and commuter rail stations and parkand-ride lots.

<sup>&</sup>lt;sup>2</sup> Wheelchair photo: TPB/Access for All Committee/Wendy Klancher

- 2. Improve bicycle parking at Metro and commuter rail stations with well-designed racks, covered racks, and lockers. Replace broken and obsolete bicycle racks with current models. Investigate the possibility of improving commuter access to bicycle lockers and increasing usage rates by establishing automated, hourly rental service.
  - 3. Improve the convenience of bringing bicycles on the Metrorail. Evaluate the possibility of allowing reverse commuting with bicycles on Metrorail during rush hours.



All 1,450 Washington region Metrobuses have been equipped with racks to carry up to two bikes per bus

4. Provide bicycle racks on all buses.<sup>3</sup>

5. Provide for accommodation of bicycles on future rail services in the Washington region.

#### E. Provide adequate bicycle support facilities.

1. Enact zoning laws to require bicycle parking and related facilities as part of all new construction or major renovation, including office, retail, and housing developments.

a. Construct bicycle parking facilities in welltraveled and lighted areas. Facilities should be covered and secure.

b. Require placement of bicycle parking facilities in convenient locations; short-term parking should be as close as possible to building entrances; long term parking facilities should be located in secure areas.

- c. Ensure the provision of showers and changing facilities in all new or renovated commercial developments.
- 2. Provide bicycle parking on public property. Jurisdictions should install bicycle parking in public spaces where there is demand, such as public libraries, parks, and sidewalks near storefront retail.

<sup>&</sup>lt;sup>3</sup> Photo of Bike on Bus by Eric Gilliland, Washington Area Bicyclist Association



The District of Columbia requires Bicycle Parking in any building with Automobile Parking, and Installs Bike Racks on Public Sidewalks on Request

The Washington, D.C. Department of Transportation has established the following bicycle parking requirements for property owners:

- Bicycle parking is required for office, retail and service uses that provide car parking
- The required number of bike parking spaces is five percent (5%) of the required number of automobile parking spaces
- Bicycle parking must be convenient, secure, and well-lit
- For older buildings, one percent (1%) of the amount of required parking spaces may be converted to bicycle parking spaces
- DDOT offers free technical advice and racks for existing garages and off-street parking lots
- F. Develop pedestrian and bicycle safety education and enforcement programs in all jurisdictions.<sup>4</sup>

3,425 elementary school students in the District of Columbia, Montgomery, and Prince George's Counties were trained in pedestrian and bicycle safety basics in 2004, under a program funded by the Maryland Office of Highway Safety



<sup>&</sup>lt;sup>4</sup> Photo of girl on bike, Washington Area Bicylist Association

- 1. Promote pedestrian and bicycle safety education programs for children, beginning at the earliest possible age.
  - a. Establish pedestrian and bicycle safety programs at the elementary school level, including classroom and on-bicycle instruction.
  - b. Develop and distribute pedestrian and bicycle safety information materials designed to teach beginning cyclists and young pedestrians.
- c. Emphasize the use of bicycle helmets as a means of injury reduction, lights after dark, reflectors, and reflective clothing for pedestrians.
- 2. Improve cycling skills and pedestrian safety habits of adults and young adults.
  - a. Produce and distribute information on bicycle usage and safety.
  - b. Emphasize the use of helmets for rider protection, lights after dark, reflectors, and reflective clothing for pedestrians.
- 3. Increase motorist awareness and accommodation of bicyclists and pedestrians, and bicyclist and pedestrian awareness and accommodation of motorists.
  - a. Include bicycle and pedestrian information in automobile drivers' training classes, driver's manuals, and license exams, and through public media.
  - b. Coordinate public media campaigns with law enforcement
- 4. Encourage jurisdictional uniformity of traffic laws relating to bicycling and walking. Encourage conformity with such regulations as the <u>Uniform Vehicle Code</u>.
- 5. Encourage consistent bicycle law enforcement to assure safe bicycling and walking.

The regional "Street Smart" Pedestrian and Bicycle Safety Campaign urges motorists to "Stop for Pedestrians", and pedestrians to "Look Before You Cross"

a. Emphasize the enforcement of traffic laws dealing with offenses known to cause crashes between bicycles and motor vehicles, such as wrong way bicycling, and ignoring stop signs and stop lights.



- b. Emphasize enforcement of traffic laws dealing with offenses known to cause crashes between pedestrians and motor vehicles, such as motorists failing to yield to pedestrians, and pedestrians disobeying "Don't walk" signals.
- 6. Improve bicycle and pedestrian accident reporting and analysis procedures at the state and regional levels, to provide jurisdictions with a better understanding of accident causes and countermeasures.
- 7. Provide increased law enforcement presence along regional off-road trail networks and encourage interjurisdictional cooperation and coordination to provide for the



safety and security of all pedestrians and bicyclists.

Volunteer Patrols can help with Trail Security

- G. Each jurisdiction should develop a high visibility bicycle or pedestrian project to demonstrate the effectiveness of bicycling and walking as a short distance transportation mode.
  - 1. Projects should be easily implemented and supported by the community.
  - 2. Each project should enjoy the full and enthusiastic support of the government agencies responsible for implementation.
  - 3. Extensive publicity and promotion should be provided for each facility or service included in the project.
  - 4. An extensive analysis of the effectiveness of each project should be conducted following the demonstration period.

#### The Regional Bicycle and Pedestrian Network in 2030

The Bicycle and Pedestrian Plan for the National Capital Region includes approximately 350 bicycle and pedestrian facility improvement projects from across the region. If every project in the plan is implemented, in 2030 the region will have added 223 miles of bicycle lane and 461 miles of shared-use path. The overall network length (accounting for dual bike lane/sidepath facilities) will increase by 680 miles. In addition, hundreds of miles of signed bicycle routes (with no other improvements beyond signing) will be created. Fifty-two pedestrian intersection improvements will be carried out, and 17 pedestrian/bicycle bridges or tunnels will be built. Two new bicycle and pedestrian crossings over the Potomac will be created, at the American Legion and Woodrow Wilson Bridges, and the bridges over the Anacostia River will be improved for pedestrians and bicycle access and amenities in places such asTysons Corner, Bethesda, Ballston, Huntingdon Metro, Clifton, and Hillsboro. Table 6-1 below summarizes the new facility mileage that will be added by 2030 if this plan is implemented in full.

Table 6-1: Miles of Bicycle/Pedestrian Facilities in the Washington Region										
Facility Type	Total	Planned New	Total							
	in	Facilities/Upgrades	in							
	2005		2030							
Bicycle Lane	56	223	279							
Shared-Use Path	490	461	951							
Total	546	684	1230							

#### **Cost Estimates**

The total cost of improvements listed in the plan is estimated at about \$530 million (2006 dollars). Project-specific cost estimates have been provided by sponsoring agencies for about 30% of the listings (shown for these projects in Appendix A), totaling about \$190 million. Of the \$190 million in identified costs, \$112 million is included in the CLRP.

The remaining 70% of the projects, based upon a global cost per mile or per facility estimate, are projected to cost about \$340 million. The costs per mile or per facility for project whether there was not a sponsor-identified cost were estimated (imputed) based

upon the cost estimates in hand for those projects having a sponsor-identified cost estimate. See Table 6-2 for costs imputed to projects that had no sponsor cost estimate. This provided a total cost for all projects in the plan, but was not broken out into project-by-project cost estimates because the level of accuracy available was not sufficient to support this.

Table 6-2: Imputed Costs (\$1,000's)										
Facility Type	Average Imputed	Miles or Number of	Imputed Cost							
	Cost per Mile or per	Projects with No								
	Project	Assigned Cost								
Multi-Use Path	\$1,000	291 miles	\$291,000							
Bicycle Lane	\$20	157 miles	\$3,140							
Pedestrian/Bicycle	\$3,000	6 projects	\$18,000							
Bridge/Tunnel										
Pedestrian	\$500	50 projects	\$25,000							
Intersection										
Improvement										
Streetscape	\$2,000	1 project	\$2,000							
Total			\$339,140							

#### **Explanation of Project listings**

Appendix A lists the plan projects, organized alphabetically by state and jurisdiction. Facility type, responsible agencies, limits, length, and cost are also included. Note that due to the nature of bicycle and pedestrian facility improvements, the list in Appendix A is expected to change annually, as projects are added or removed.

The project list is drawn from a database that includes more extensive information, including project status, agency project ID number, facility lengths, facility alignment, description, project status, project web site, date of (projected) completion, date the record was last updated, and project manager name and contact information. Agency staff may enter via a password-protected web site to enter, edit, and delete project information, making the process of keeping the database accurate simple. Over time the database should prove useful in tracking the progress of projects. A sample database entry and a data dictionary are found in Appendix B.

This project list is intended to be a list of significant planned bicycle and pedestrian projects in the Washington region. Agencies were encouraged to submit projects for inclusion if they were one mile or more in length, or cost more than \$300,000. Small sidewalk projects were not included unless they were part of a larger pedestrian or bicycle project.

Figures 6-1 and 6-2 show the location of major bicycle and pedestrian projects throughout the region. All pedestrian/bicycle bridge or tunnel projects, multi-use paths greater than three miles in length, and projects estimated by their sponsors to cost more that \$500,000 are mapped, except for area projects that cannot be mapped in meaningful way. About 20% of the plan projects are mapped. Project details can be found in the project list in Appendix A.

Figures 6-3 and 6-4 show the location of major bicycle and pedestrian projects that are included in the CLRP or are funded.

Table 6-3 lists the mapped projects. Project numbers are sequential but not continuous because not all projects are mapped.

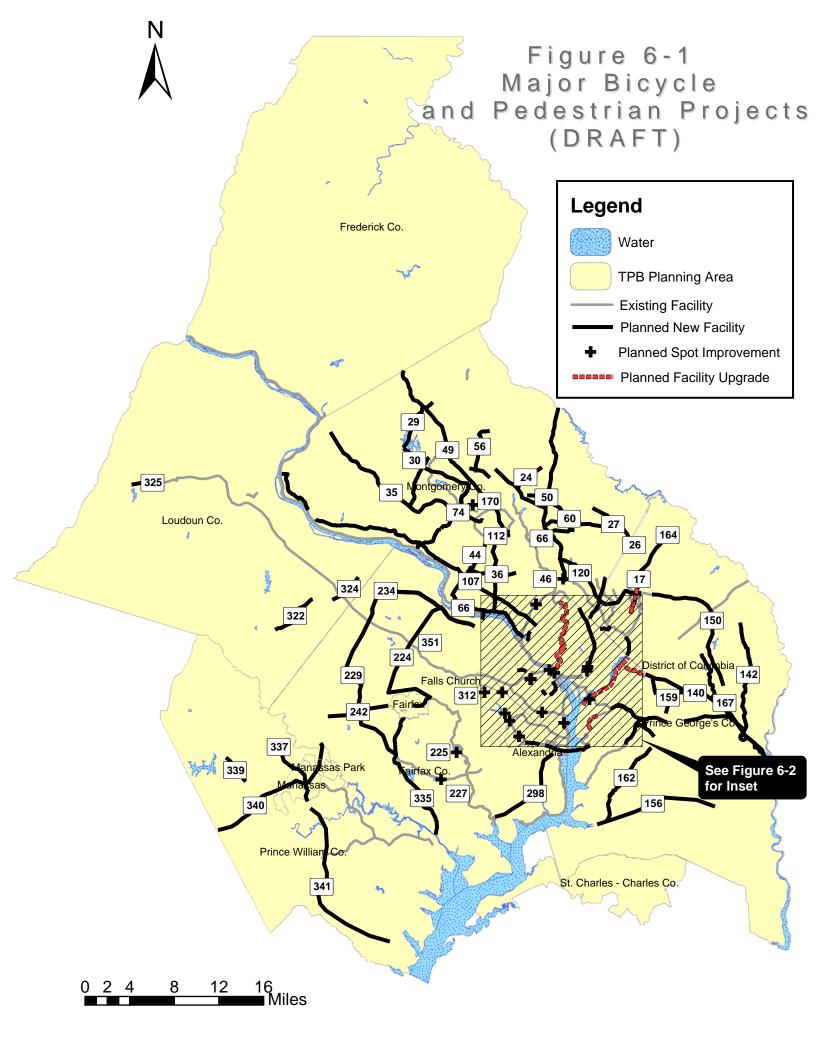
-	Table 6-3: Mapped Bicycle and Pedestrian Projects	5
Project	Project Name	CLRP
Number		
1	Anacostia Riverwalk Trail	Y
6	Dalecarlia Parkway Trail Design	Y
7	Metropolitan Branch Trail	Y
8	New Pedestrian Bridge over Anacostia Freeway	Y
9	Oxon Run Trail Restoration	Y
10	Pedestrian Tunnel	Y
11	Rock Creek Park Trail	Y
15	Union Station Bike Station	Y
16	Watts Branch Trail	Y
17	College Park Trolley Trail	Y
19	American Legion Bridge	
22	Bel Pre Road - East	
23	Bethesda Bikeway and Pedestrian Facilities	Y
24	Bowie Mill Road	
26	Briggs Chaney Road East	
27	Briggs Chaney Road West	
29	Clarksburg Road (MD 121)/Stringtown Road	
30	Clopper Road/Diamond Avenue (MD 117)	
35	Darnestown Road (MD 28) - North	
36	Democracy Boulevard	
44	Falls Road (MD 189)	
47	Forest Glen Pedestrian Bridge	Y
49	Frederick Road (MD 355) - Upcounty	
50	Georgia Avenue (MD 97) - North	
53	Germantown Road (MD 118)	
56	Goshen Road/Brink Road	
62	ICC Bike Path	
66	Macarthur Boulevard	

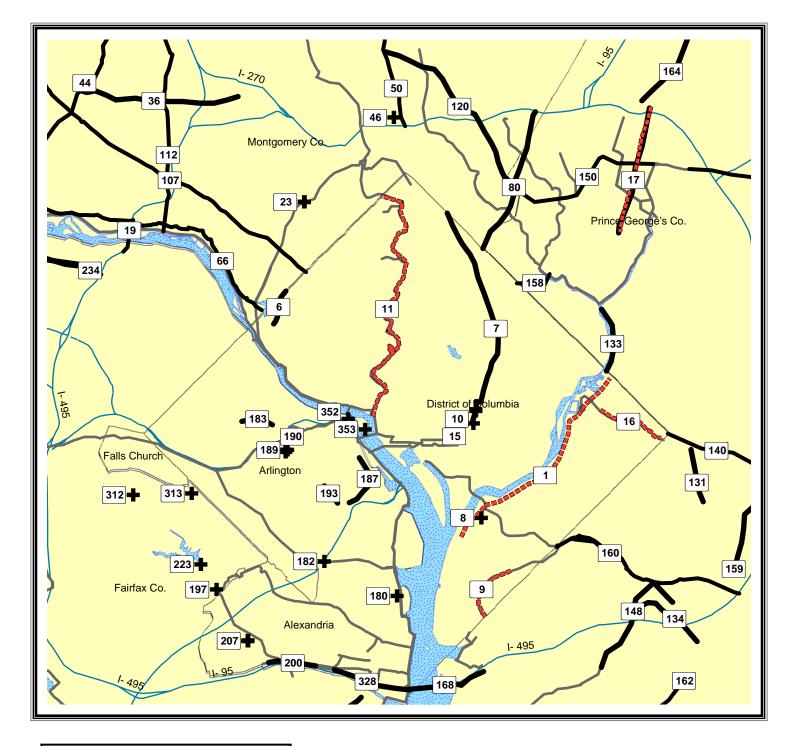
### CHAPTER 6: THE 2030 NETWORK

Project Number	Project Name	CLRP
68	Matthew Henson Trail	Y
71	Mid-County Highway	
74	Muddy Branch Road	
75	Muncaster Mill Road (MD 115)/Norbeck Road	
80	New Hampshire Avenue	
107	River Road (MD190)	
112	Seven Locks Road	Y
120	University Boulevard	
131	Addison Road	
133	Anacostia River Trail (Prince George's)	
134	Auth Road	Y
134	Cabin Branch Trail	
140	Chesapeake Beach Rail-Trail	
140	Collington Branch	
142	Folly Branch Trail	
		V
148	Henson Creek Trail Extension	Y
150	MD 193	
156	Piscataway Creek Trail	
158	Prince George's Connector	Y
159	Ritchie Marlboro Road	
160	Suitland Parkway Trail	Y
162	Tinkers Creek Trail	
164	US 1	
177	Western Branch Trail	
168	Woodrow Wilson Bridge	Y
170	Ped-Bike Bridge over I-270 on MD28	
180	George Washington Parkway Crossing	Y
182	I-395 Shirlington Underpass, Four Mile Run Trail	Y
183	Old Dominion Drive	Y
187	Route 110 Trail	Y
190	VA 120 (Glebe Road)	Y
193	Washington Boulevard Trail Phase II	Y
197	Chambliss Stream Crossing	Y
199	Duke Street Pedestrian Bridge	Y
200	Eisenhower Trail	Y
207	Woodrow Wilson Bridge - VA	Y
208	Accotink Gateway Connector Trail	
223	Columbia Pike	Y
224	Cross County Trail	Y
225	Danbury Forest	
228	Fairfax County Parkway Bridge	
264	Fairfax County Parkway Trail	
234	Georgetown Pike Multi-Use Path	
242	Lee Highway	

### CHAPTER 6: THE 2030 NETWORK

Project Number	Project Name	CLRP
298	Richmond Highway Pedestrian and Bicycle Improvements	Y
308	Trap Road	
312	US 50 Install Median Barrier and Fence	
313	US 50 Pedestrian Bridge	Y
357	US 50 Pedestrian Improvements	Y
322	Old Ox Road Widening	
324	VA 846 Sterling Boulevard	Y
325	W&OD Trail Extension	Y
335	Route 123 Widening	Y
337	Bus 234 Add Signalized Crosswalks	Y
339	Linton Hall Road Widening	Y
340	Route 28 Trail Extension	Y
341	VA 234 Bike Trail	Y
352	Rosslyn Circle Crossing	Y
353	Theodore Roosevelt Bridge	

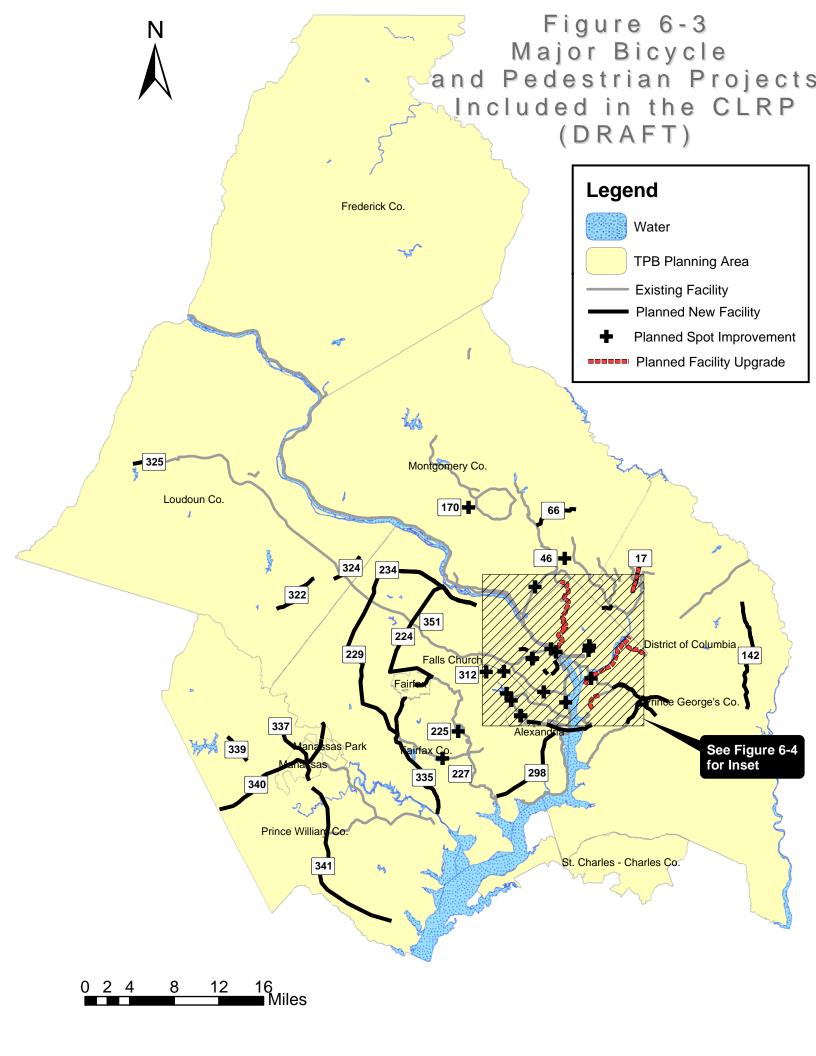






0

Figure 6-2: Major Bicycle and Pedestrian Projects in the Central Washington Region (DRAFT) N <u>1 2 4 6 8</u>Miles



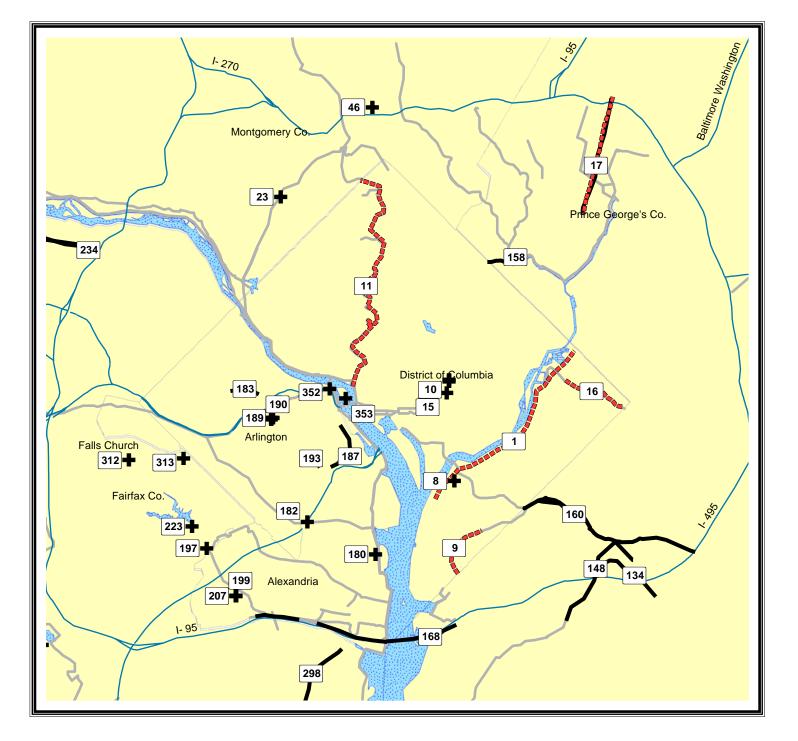




Figure 6-4: Major Bicycle and Pedestrian Projects in the Central Washington Region Included in the CLRP (DRAFT) N 0 1 2 4 6 8<sub>Miles</sub>

### Appendices

### Appendix A

Bicycle and Pedestrian Projects Of the Long-Range Bicycle and Pedestrian Plan For the National Capital Region This appendix contains a complete list of the projects in the Bicycle and Pedestrian Plan for the National Capital Region. Below is a guide to the printed project list. Appendix B contains a data dictionary for the electronic database, which contains more information than this printed list, as well as a sample data entry form.

PROJECT LIST DATA DI	CTIONARY							
Field	Explanation							
Line NumberShort ID number used to label projects on the maps								
Agency Project ID	The sponsoring agency's project identifying num	nber						
Project Name	Descriptive name provided by the sponsoring ag	ency						
From	Project Limits							
То	Project Limits							
Length (Miles)	Length of the project from start to finish in miles. Example: if a project consists of four miles of road with a continuous bike lane and sidewalk, the project length is four miles. For projects that have no length, such as bicycle racks, the listed length is zero.							
Responsible Agencies	Agencies responsible for implementing the proje otherwise involved	ect or						
Bike LaneBike lanes are striped lanes at least 4' wide in the public rig of-way, marked for the exclusive use of bicyclists								
Multi-Use Path	th A paved or hard-surface path separated from traffic, officially designated for bicycles and other non-motorized users. Should be at least 8' wide.							
Sidewalk	Sidewalks are usually less than 8' wide, and are for bicyclists.	not designed						
Type of Spot/Area Improvement	For non-linear projects. The pull-down menu gi following options:	ves the						
	Type of Improvement C	ode Letter						
	1. Pedestrian Intersection Improvement	Ι						
	2. Pedestrian/Bicycle Bridge or Tunnel	В						
	3. Traffic Calming	TC						
	4. Streetscape/Pedestrian Improvements	S						
	5. Bicycle Parking	PK						
	6. Bicycle Route Marking	BR						
I CLED	7. Other	0						
In CLRP	Project is in the 2005 Financially Constrained L	• •						
	Transportation Plan for the National Capital Reg							
	therefore is officially considered to have funding	g available to						
	support project completion.							
In TIP	Project is in the most recent National Capital Re	-						
	Transportation Improvement Program with spec amounts identified for program completion.							

Field	Explanation							
Status	The pull-down menu offers the following options:							
	Code Let							
	1. Fully Funded <sup>1</sup>	F						
	2. Partially Funded P							
	3. Unfunded	U						
	4. Under Construction	UC						
	5. Complete*	С						
Cost	In thousands of dollars. As many project	cts in the plan may not						
	be built for many years, and have not be	een fully scoped, this						
	can be a very rough estimate. If a proje	ct is part of a larger						
	project the total project cost is not listed	l, only that portion of						
	the cost which is attributable to the bicy	cle or pedestrian						
	facility. Use of a rule of thumb for such	n estimates was						
	acceptable, i.e. 3% of total project cost.	Many projects do not						
	have a cost estimate available.							

\* This database is mean to list planned facilities rather than existing facilities, but as time passes many projects in it will be completed.

<sup>&</sup>lt;sup>1</sup> "Funded" indicates that the sponsoring agency has considered funding for completion of this project to be reasonably available within projected funding sources. "Unfunded" indicates, that while the project has been identified, there is no projected funding to support its completion at this time.

## 2006 Draft Bike/Ped Plan Project List

	Project ID	Project/Facility Name	From	То	Length (Miles)	Responsible Agencies	Bike Lane F		Side valk		In CLRP	In TIP	Status	Cost (\$1,000s)
1		Anacostia Riverwalk Trail	Potomac River	Maryland	20	DDOT		✓			✓	✓	Ρ	20,000
2		Bicycle Lanes			30	DDOT						✓	Ρ	\$600
3		Bicycle Parking Racks				DDOT				Ρ	✓	✓	Ρ	\$500
4		Bicycle Route Signs				DDOT				R		✓	Ρ	\$300
5		Cultural/Heritage Trail System				DDOT						✓	U	\$0
6		Dalecarlia Parkway Trail design	Massachusetts Avenue, NW	Loughboro Road, NW	2	DDOT		✓					Ρ	\$1,000
7		Metropolitan Branch Trail	Union Station	Takoma Park	7	DDOT	✓ [	✓			✓	✓	Ρ	20,000
8	CDT D1	New Pedestrian Bridge	Over Anacostia Freeway	Near Firth Sterling	1	DDOT		✓		В		✓	Ρ	\$2,000
9		Oxon Run Trail Restoration	South Capitol Street	Southern Avenue	2	DDOT		✓				✓	Ρ	\$1,500
10		Pedestrian Passageway/Tunnel	1st Street Metro Station Kiosk	1st Street, N.E. (Under H Street Overpass)	1	DDOT			✓	В		✓	F	\$2,000
11		Rock Creek Park Trail			4	DDOT, National Park Service		✓				✓	Ρ	\$2,500
12		Rose Park Trail				DDOT						✓	Ρ	\$0
13		Safe Routes to School Program				DDOT						✓	F	\$5,000
14		Sidewalk Construction				DDOT			✓				Ρ	\$2,000
15	ZU0	Union Station Bike Station	(Union Station)			DDOT						✓	Ρ	\$600
16		Watts Branch Trail	Minnesota Ave	62nd Street, NE	2	DDOT		✓				✓	F	\$2,500

15-Jun-06	
-----------	--

	Project ID Project/Facility Name	From	То	Length (Miles)	Responsible Agencies	Spot/ In In Cost Area CLRP TIP Status (\$1,000s)
17	College Park Trolley Trail	Paducah Road	Albion Road	4	City of College Park	P \$500

DRAFT

	Project ID	Project/Facility Name	From	То	Length (Miles)	Responsible Agencies	Bike Lane Path	Side Spot walk Area	t/ In a CLRP	In TIP Status	Cost (\$1,000
3	509325	ADA Compliance Transportation Access	Countywide			Montgomery County DPWT				✓	\$0
9	SP-76	American Legion Bridge	Macarthur Blvd	Fairfax County Line	1	MDOT, M-NCPPC, Montgomery County				U	\$0
)	507596	Annual Bikeway Program	countywide			Montgomery County DPWT					\$0
	506747	Annual Sidewalk Program	countywide			Montgomery County DPWT					\$0
2	SP-30	Bel Pre Road - east	Georgia Avenue (MD97)	Layhill Road (MD182)	2	M-NCPPC, Montgomery County					\$0
8		Bethesda Bikeway and Pedestrian Facilities	Bethesda CBD			Montgomery County DPWT		□ S			\$0
ļ	BL-20	Bowie Mill Road	Muncaster Mill Road (MD115)	Olney-Laytonsville Road (MD108)	3	Montgomery County DPWT, M-NCPPC					\$0
)	DB-4	Bradley Boulevard (MD191)	Persimmon Tree Road	Wisconsin Avenue (MD355)	6	M-NCPPC, Montgomery County, MDOT					\$0
5	SP-19	Briggs Chaney Road East	Old Columbia Pike	Prince George's County line	2	Montgomery County DPWT, M-NCPPC					\$0
,	BL-14	Briggs Chaney Road West	New Hampshire Avenue	Old Columbia Pike	3	M-NCPPC, Montgomery County					\$0
3	SP-75	CCT-Black Hill connector	Crystal Rock Drive	Black Hill Regional Park	1	M-NCPPC, Montgomery County					\$0
)	DB-18	Clarksburg Road (MD121)/ Stringtown Road	Clopper Road (MD117)	MidCounty Highway	5	M-NCPPC, Montgomery County, MDOT					\$0
)	DB-17	Clopper Road/Diamond Avenue (MD117)	Summit Avenue	Clarksburg Road (MD121)	3	M-NCPPC, Montgomery County, MDOT					\$0
	DB-9	Columbia Pike (US29) North	New Hampshire Avenue/ Lockwood Drive	Spencerville Road (MD198)	7	MDOT, M-NCPPC, Montgomery County					\$0
5	Jun-06		Montgomery Co	ounty. MD							Page

	Project ID	Project/Facility Name	From	То	Length (Miles)	Responsible Agencies	Bike Lane	Path	Side Spot walk Area	/ In LCLRP	In TIP Status	Cost ; (\$1,000s)
32	SP-66	Corridor Cities Transitway bike path	Shady Grove Metrorail Station	Frederick Road (MD355)	4	Montgomery County DPWT, MTA		✓				\$0
33	SP-53	Crabbs Branch Way	Gude Drive	Shady Grove Road	1	M-NCPPC, Montgomery County		✓				\$0
34	SP-59	Darnestown Road - south	Key West Avenue (MD28)	Wootton Parkway	2	M-NCPPC, Montgomery County		✓				\$0
35	DB-16	Darnestown Road (MD28) - North	Seneca Road	Great Seneca Highway (MD119)	5	MDOT, Montgomery County, M-NCPPC	✓	✓				\$0
36	SP-2	Democracy Boulevard	Falls Road (MD189)	Old Georgetown Road	4	M-NCPPC, Montgomery County		✓				\$0
37	SP-38	Doctor Bird Road/Norwood Road (MD182)	Layhill Road (MD182)	Olney-Sandy Spring Road (MD108)	3	MDOT, Montgomery County, M-NCPPC		✓				\$0
38	SP-44	East Jefferson Street	Montrose Road	Rollins Avenue	2	M-NCPPC, Montgomery County		✓				\$0
39	SP-31	Ednor Road/Layhill Road	Norbeck Road (MD28)	New Hampshire Avenue (MD650)	2	M-NCPPC, Montgomery County		✓				\$0
40	BL-7	Elm Street	Exeter Road	Wisconsin Avenue (MD355)	1	M-NCPPC, Montgomery County	✓					\$0
41	BL-25	Executive Boulevard	Woodglen Road/North Bethesda Trail	Montrose Road	1	M-NCPPC, Montgomery County	✓					\$0
42	BL-13	Fairland Road - West	Randolph Road	Columbia Pike (US 29)	2	M-NCPPC, Montgomery County	✓					\$0
43	SP-18	Fairland Road East	Columbia Pike (US29)	Prince George's County line	2	M-NCPPC, Montgomery County		✓				\$0
44	SP-1	Falls Road (MD189)	MacArthur Boulevard	Wootton Parkway	5	M-NCPPC, Montgomery County, MDOT		✓				\$0
45	BL-31	Fieldcrest Road	Woodfield Road (MD124)	Olney-Laytonsville Road (MD108)	2	M-NCPPC, Montgomery County						\$0

Montgomery County, MD

DRAFT Key to Codes

to B=Bridge or Tunnel C = Complete F = Fully Funded I = Intersection Improvement O = Other P = Partially Funded les PK = Bicycle Parking R = Bicycle Route Marking S = Streetscape U = Unfunded UC = Under Construction

	Project ID	Project/Facility Name	From	То	Length (Miles)	Responsible Agencies	Bike Lane Path	Side Spot walk Area	/ In a CLRP	In TIP Status	Cost (\$1,000s)
46	509976	Forest Glen Pedestrian Bridge	west side of Georgia Avenue at Locust Grove Road	west side of Georgia Avenue at Forest Glen Road		Montgomery County DPWT					\$0
47	SP-13	Forest Glen Road - central	Belvedere Place	Sligo Creek Trail	1	Montgomery County DPWT, M-NCPPC					\$0
48	SP-64	Frederick Road (MD355)	Gude Drive	Watkins Mill Road	5	M-NCPPC, Montgomery County, MDOT					\$0
49	SP-72	Frederick Road (MD355)-Upcounty	Watkins Mill Road	Frederick County line	7	MDOT, Montgomery County, M-NCPPC					\$0
50	SP-29	Georgia Avenue (MD97) - North	Olney-Laytonsville Road (MD108)	Glenmont Metrorail station	6	M-NCPPC, Montgomery County, MDOT					\$0
51	BL-22	Georgia Avenue (MD97) - Upcounty	Brookeville Bypass	Howard County line	4	MDOT, MCDPWT					\$0
52	SP-39	Georgia Avenue (MD97)-Brookeville	Olney-Sandy Spring Road (MD108)	Brookeville Road	2	M-NCPPC, Montgomery County, MDOT					\$0
53	SP-67	Germantown Road (MD118)	Darnestown Road (MD28)	Frederick Road (MD355)	7	M-NCPPC, Montgomery County, MDOT					\$0
54	SP-24	Glenallen Avenue	Randolph Road	Kemp Mill Road	2	M-NCPPC, Montgomery County					\$0
55	BL-1	Goldboro Road (MD614)	MacArthur Boulevard	Bradley Boulevard (MD191)	2	M-NCPPC, Montgomery County, MDOT					\$0
56	SP-61	Goshen Road/Brink Road	MidCounty Highway	(Woodfield Road (MD124)	4	Montgomery County DPWT, M-NCPPC					\$0
57	SP-23	Greencastle Road - east	Robey Road	Prince George's County line	2	Montgomery County DPWT, M-NCPPC					\$0
58	SP-43	Grosvenor Connector	Beach Drive	Metro station	1	M-NCPPC, Montgomery County					\$0

Montgomery County, MD

DRAFT Key to Codes

	Project ID	Project/Facility Name	From	То	Length (Miles)	Responsible Agencies	Bike Lane Path	Side Sp walk Ai	ot/ In rea CLRF	In TIP Status	Cost (\$1,000s)
59	SP-33	Hines Road-North Branch connector	Rock Creek's North Branch Trail	Cashell Road	1	M-NCPPC, Montgomery County					\$0
60	SP-40	ICC bike path	I-370 terminus	Prince George's County line	9	MDOT, M-NCPPC, Montgomery County				P	\$0
61	BL-18	Layhill Road (MD182)	Georgia Avenue (MD97)	Norbeck Road (MD28)	2	MDOT, Montgomery County					\$0
62	DB-10	Lockwood Drive	Columbia Pike (US29)	New Hampshire Avenue (MD650)	3	M-NCPPC, Montgomery County					\$0
63	SP-60	Long Draft Road	Quince Orchard Road	Clopper Road (MD117)	2	M-NCPPC, Montgomery County					\$0
64	DB-1	MacArthur Boulevard	Seven Locks Road	Falls Road (MD189)	4	Montgomery County DPWT, M-NCPPC					\$0
65		Mathew Henson Trail	Alderton Lane	Rock Creek Trail		Montgomery County DPWT					\$0
66		Mathew Henson Trail	Rock Creek Trail (west of Viers Mill Rd.)	Georgia Avenue	4	Montgomery County DPWT, M-NCPPC					\$0
67	SP-21	MD198/MD28 shared use path	Layhill Road	Old Columbia Pike	3	M-NCPPC, Montgomery County, MDOT					\$0
68	DB-6	MD384 connector to Silver Spring Metro Station	16th Street	East-West Highway	1	Montgomery County DPWT, M-NCPPC					\$0
69		Metropolitan Branch Trail	Silver Spring Metro/Transit Center	Montgomery College Campus Takoma Park	1	Montgomery County DPWT					\$0
70	SP-12	Metropolitan Branch Trail	Silver Spring Metro Station	DC Line	1	Montgomery County DPWT					\$0
71	SP-70	MidCounty Highway	ICC	Frederick Road (MD355)	4	Montgomery County DPWT, M-NCPPC					\$0
72	SP-71	Middlebrook Road	Father Hurley Boulevard	MidCounty Highway	2	M-NCPPC, Montgomery County					\$0

Montgomery County, MD

DRAFT Key to Codes

B=Bridge or Tunnel C = Complete F = Fully Funded I = Intersection Improvement O = Other P = Partially Funded PK = Bicycle Parking R = Bicycle Route Marking S = Streetscape U = Unfunded UC = Under Construction

	Project ID	Project/Facility Name	From	То	Length (Miles)	Responsible Agencies	Bike Lane Path	Side Spo walk Are	t∕ In a CLRP	In TIP Status	Cost (\$1,000s
	SP-50	Montrose Road/Parkway	Falls Road	Veirs Mill Road (MD586)	2	Montgomery County DPWT, M-NCPPC					\$0
4	SP-62	Muddy Branch Road	Darnestown Road (MD28)	Clopper Road (MD117)	3	M-NCPPC, Montgomery County					\$0
5	SP-28	Muncaster Mill Road (MD115)/ Norbeck Road (MD28)	Woodfield Road	Georgia Avenue (MD97)	5	M-NCPPC, Montgomery County, MDOT					\$0
6	BL-26	Nebel Street - north	Old Georgetown Road	Randolph Road	1	M-NCPPC, Montgomery County					\$0
7	DB-13	Nebel Street - south	Nicholson Lane	Old Georgetown Road	1	M-NCPPC, Montgomery County					\$0
8	SP-47	Nebel Street extended	Randolph Road	Chapman Avenue	1	M-NCPPC, Montgomery County					\$0
9	DB-14	Needwood Road	Redland Road	Muncaster Mill Road (MD115)	1	M-NCPPC, Montgomery County					\$0
0	SP-11	New Hampshire Avenue	DC Line	I-495	4	MDOT, Montgomery County					\$0
1	SP-15	New Hampshire Avenue (MD650) - Ashton	Ednor Road	Olney-Sandy Spring Road (MD108)	2	M-NCPPC, Montgomery County, MDOT					\$0
2	BL-11	New Hampshire Avenue (MD650) - Colesville	Randolph Road	Spencerville Road (MD198)	4	M-NCPPC, Montgomery County, MDOT					\$0
3	DB-8	New Hampshire Avenue (MD650) - Ednor	Spencerville Road (MD198)	Ednor Road	2	M-NCPPC, Montgomery County, MDOT					\$0
4	DB-7	New Hampshire Avenue (MD650) - Hillendale	I-495	Lockwood Drive	1	M-NCPPC, Montgomery County, MDOT					\$0
5	BL-27	Nicholson Lane/Parklawn Drive	Nebel Street	Twinbrook Parkway	3	Montgomery County DPWT, M-NCPPC					\$0
 5-、	Jun-06		Montgomery C	ounty,MD							Page

DRAFT Key to Codes

	Project ID	Project/Facility Name	From	То	Length (Miles)	Responsible Agencies	Bike Lane F	Sic ath wa	de Spot/ alk Area	In CLRP	In TIP	Status	Cost (\$1,000
)	DB-12	Norbeck Road (MD28)	Georgia Avenue (MD97)	Layhill Road	3	M-NCPPC, Montgomery County, MDOT							\$0
,	SP-41	North Bethesda Trail	Cedar Lane	Twinbrook Metrorail station	4	M-NCPPC, Montgomery County						UC	\$0
;	509922	North Bethesda Trail	Twinbrook Metro Station	Norfolk/Rugby Ave. intersection (Bethesda)	2	Montgomery County DPWT	<ul><li>✓</li></ul>				✓		\$0
)	SP-3	North Bethesda Trail-NIH connector	Battery Lane	Cedar Lane	1	Montgomery County DPWT							\$0
)	BL-21	Norwood Road	Layhill Road (MD182)	New Hampshire Avenue (MD650)	2	Montgomery County DPWT, M-NCPPC	✓ [						\$0
	SP-5	Oaklyn Drive/Persimmon Tree Road	MacArthur Boulevard	Falls Road (MD189)	3	M-NCPPC, Montgomery County							\$0
2	SP-69	Observation Drive	Germantown Road (MD118)	Frederick Road (MD355)	2	M-NCPPC, Montgomery County							\$0
	SP-73	Old Baltimore Road/New Cut Road	Clarksburg Road (MD121)	Frederick Road (MD355)	1	M-NCPPC, Montgomery County							\$0
	509953	Old Columbia Pike	E. Randolph Road	MD 198		Montgomery County DPWT					✓		\$0
	SP-36	Olney-Laytonsville Road (MD108) - Laytonsville	Laytonsville Town boundary	Olney Mill Road	3	M-NCPPC, Montgomery County							\$0
I	SP-37	Olney-Sandy Spring Road (MD108) - Ashton	Layhill Road (MD182)	Howard County line	2	M-NCPPC, Montgomery County, MDOT							\$0
,		Pedestrian Safety Program				Montgomery County DPWT							\$0
;	SP-56	Piney Meetinghouse Road	River Road (MD190)	Darnestown Road	4	M-NCPPC, Montgomery County	✓ [						\$0
	SP-58	Quince Orchard Road	Dufief Mill Road	Darnestown Road (MD28)	3	M-NCPPC, Montgomery County							\$0
	Jun-06		Montgomery C	ounty MD									age 1

Codes PK = Bicycle Parking R = Bicycle Route Marking S = Streetscape U = Unfunded UC = Under Construction

	Project ID	Project/Facility Name	From	То	Length (Miles)	Responsible Agencies	Bike Lane Path	Side Spot walk Area	:/ In a CLRP	In TIP Status	Cost (\$1,000s)
100	BL-15	Randolph Road - central	Parklawn Drive	Veirs Mill Road (MD586)	2	M-NCPPC, Montgomery County					\$0
101	SP-26	Randolph Road - east	Veirs Mill Road (MD586)	Kemp Mill Road/ Northwest Branch Trail	3	M-NCPPC, Montgomery County					\$0
102	SP-25	Randolph Road - west	Rockville Pike (MD355)	Parklawn Drive	3	M-NCPPC, Montgomery County					\$0
103	BL-29	Redland Road - east	Needwood Road	Muncaster Mill Road (MD115)	2	M-NCPPC, Montgomery County					\$0
104	SP-54	Redland Road - west	Shady Grove Metrorail station	Needwood Road	1	Montgomery County DPWT, M-NCPPC					\$0
105	SP-65	Richter Farm Road	Great Seneca Highway (MD119)	Clopper Road (MD117)	2	M-NCPPC, Montgomery County					\$0
106	BL-34	Riffleford Road	Darnestown Road (MD28)	Germantown Road (MD118)	3	M-NCPPC, Montgomery County					\$0
107	DB-2	River Road (MD190)	DC line	Seneca Road (MD112)	13	M-NCPPC, Montgomery County, MDOT					\$0
108	SP-14	Rock Creek Trail-Forest Glen Metro connector	Stoneybrook Road	Seminary Road	1	M-NCPPC, Montgomery County					\$0
109	SP-48	Rock Springs Connector	Democracy Boulevard	Tuckerman Lane	2	M-NCPPC, Montgomery County					\$0
110	SP-49	Rockville Pike (MD355) - north	Halpine Road	Veirs Mill Road (MD586)/ Norbeck Road (MD28)	3	M-NCPPC, Montgomery County					\$0
111	BL-33	Seneca Road	River Road (MD190)	Darnestown Road (MD28)	3	M-NCPPC, Montgomery County					\$0
112	DB-3	Seven Locks Road	Wootton Parkway	MacArthur Boulevard	5	Montgomery County DPWT, M-NCPPC					\$0
113	BL-30	Shady Grove Road - east Shady Grove Road - east	Frederick Road (MD355)	Muncaster Mill Road (MD115)	3	M-NCPPC, Montgomery County				UC UC	\$0

Montgomery County, MD

DRAFT Key to Codes

	Project ID	Project/Facility Name	From	То	Length (Miles)	Responsible Agencies	Bike Lane	Path	Side S walk <i>A</i>	pot/ Area C	In LRP	In TIP Status	Cost (\$1,000s)
114	DB-15	Shady Grove Road - west	Darnestown Road	Frederick Road (MD355)	4	M-NCPPC, Montgomery County	✓	✓					\$0
115	509975	Silver Spring Green Trail	Silver Spring Metro Station	Sligo Creek Hiker-Biker Trail	2	Montgomery County DPWT	✓					✓	
116	SP-20	Spencerville Road (MD198) - Fairland	Old Columbia Pike	Prince George's County line	2	MDOT, Montgomery County		✓					\$0
117	BL-24	Tilden Lane	Nicholson Lane	Hounds Way	1	M-NCPPC, Montgomery County	✓						\$0
118	SP-42	Tuckerman Lane	Old Georgetown Road	Rockville Pike (MD355)	1	Montgomery County DPWT, M-NCPPC	✓						\$0
119	BL-28	Twinbrook Parkway	Frederick Road (MD355)	Veirs Mill Road (MD586)	2	Montgomery County DPWT, M-NCPPC	✓						\$0
120	DB-5	University Boulevard	Georgia Avenue	Prince George's County Line	5	MDOT, Montgomery County, M-NCPPC							\$0
121	BL-16	Viers Mill Road (MD586) - west	Twinbrook Parkway	Matthew Henson Trail	2	M-NCPPC, Montgomery County, MDOT	✓						\$0
122	SP-74	Watkins Mill Road	Frederick Road (MD355)	MidCounty Highway	3	M-NCPPC, Montgomery County		✓					\$0
123	SP-10	Wayne Avenue Green Trail	Spring Street	Sligo Creek Trail	1	Montgomery County DPWT, M-NCPPC		✓					\$0
124	SP-4	West Cedar Lane	Old Georgetown Road	Beach Drive	2	M-NCPPC, Montgomery County		✓					\$0
125	SP-7	Western Avenue	River Road	Chevy Chase Circle	1	M-NCPPC, Montgomery County							\$0
126	BL-4	Westlake Terrage/Fernwood Road/Green Tree Road	Rockledge Drive	Old Georgetown Road	4	M-NCPPC, Montgomery County	✓						\$0
127	BL-8	Willard Avenue Bike Lanes	Willard Avenue Park	Wisconsin Avenue	1	M-NCPPC, Montgomery County	✓						\$0

Montgomery County, MD

DRAFT Key to Codes

_	Project ID	Project/Facility Name	From	То		Responsible Agencies	Bike Si Lane Path wa	de Spot/ alk Area	In Ir CLRP TI	n IP Status	Cost (\$1,000s)
128	BL-2	Wilson Lane (MD188) - west	MacArthur Boulevard	Elmore Lane	2	M-NCPPC, Montgomery County, MDOT					\$0
129	SP-8	Wisconsin Avenue Path	Bradley Lane	Oliver Lane	2	M-NCPPC, Montgomery County					\$0
130	BL-6	Woodmont Avenue	Bethesda Avenue	Battery Lane	1	M-NCPPC, Montgomery County					\$0

15-J	un-06
------	-------

F	Project ID	Project/Facility Name	From	То	Length (Miles)	Responsible Agencies	Bike Lane Pa		Spot/ In Area CLRF	In P TIP	Status	Cost (\$1,000s)
131		Addison Road	MD 214	Walker Mill Road	1	Prince Georges County					Ρ	\$2,343
132		Allentown Road	MD 5	Old Fort Road	6	Prince Georges County						
133		Anacostia River Trail	Bladensburg Marina	Wash. D.C. line	1	M-NCPPC, Prince Georges County					F	\$500
134		Auth Road	MD 337 (Allentown Road)	MD 5 (Branch Avenue)	4	Prince Georges County					F	\$450
135		Bock Road	Livingston Road	Tucker Road	2	Prince Georges County						
136		Brinkley Road	Allentown Road	St. Barnabas road	3	Prince Georges County						
137		Cabin Branch Trail	MD 214	Cheverly Metro	1	M-NCPPC, Prince Georges County						\$260
138		Cabin Branch Trail	Presidential Corporate Center	Western Branch	5	M-NCPPC, Prince Georges County						\$1,350
139		Chesapeake Beach Rail-Trail	MD 214	Capital Beltway	3	M-NCPPC, Prince Georges County					Ρ	\$650
140		Chesapeake Beach Rail-Trail	Capital Beltway	Upper Marlboro	5	M-NCPPC, Prince Georges County						\$1,080
141		Chesapeake Beach Rail-Trail	MD 704	Addison Road Metro	1	M-NCPPC, Prince Georges County, City of Seat Pleasant						\$200
142		Collington Branch Trail	MD 214	Upper Marlboro	6	M-NCPPC, Prince Georges County					Ρ	\$2,000
143		East Coast Greenway American Discovery Trail	Washington D.C.	Anne Arundel County	14	MDOT, M-NCPPC, Prince Georges County						\$0
144		Folly Branch Trail	Bald Hill Branch	Glenwood Park Neighborhood Park	3	M-NCPPC, Prince Georges County						\$1,000
15-Ju	ın-06		Prince George's Co	ounty,MD							F	Page 14
DR	AFT	Key to B=Bridge or Tunnel	C = Complete F = Fully	Funded I = Intersection I	mprove	ment O = Other	P = F	Partiall	y Fund	ed		

PK = Bicycle Parking R = Bicycle Route Marking S = Streetscape U = Unfunded UC = Under Construction Codes

Project	ID Project/Facility Name	From	То	Length (Miles)	Responsible Agencies	Bike Lane Pat	Spot/ In Area CLRP	In TIP	Status	Cost (\$1,000s)
145	Fort Foote Road	Oxon Hill Road (north)	Oxon Hill Road (south)	3	Prince Georges County					
146	Fort Washington Road	MD 210	Fort Washington National Park	3	Prince Georges County					
147	Good Luck Road	MD 193	MD 201	5	Prince Georges County					
148	Henson Creek Trail extension	Brinkley Road	Branch Avenue Metro	2	M-NCPPC, Prince Georges County				Ρ	\$1,367
149	Livingston Road	Oxon Hill Road	MD 210	2	Prince Georges County				Ρ	
150	MD 193	MD 564	Montgomery Co. line	9	MDOT					\$0
151	Mitchellville Road	Mount Oak Road	US 301	1	Prince Georges County					\$300
152	Old Fort Road	MD 210	Fort Washington Road	1	Prince Georges County					
153	Oxon Hill Road	MD 210	Livingston Road	3	Prince Georges County					
154	Oxon Hill Road (MD 414)	MD 210	St. Barnabas Road	1	MDOT					\$350
155	Paint Branch Trail extension	Cherry Hill Road	Sellman Road	1	M-NCPPC, Prince Georges County					\$250
156	Piscataway Creek Trail	Dower House Branch near Cheltenham	Potomac River	11	M-NCPPC, Prince Georges County, National Park Service				Ρ	\$2,300
157	Potomac Heritage On-Road Bicycle Route	Oxon Cove Park	Piscataway	6	Prince Georges County, DPW&T					\$0
158	Prince George's Connector	Chillum Road	Gallatin Street	1	M-NCPPC, Prince Georges County				F	\$400
159	Ritchie Marlboro Road	Old Marlboro Pike	Capital Beltway	5	Prince Georges County					\$1,100
15-Jun-06		Prince George's C	County, MD				 		F	Page 15

DRAFTKey to<br/>CodesB=Bridge or TunnelC = CompleteF = Fully FundedI = Intersection ImprovementO = OtherP = Partially FundedPK = Bicycle ParkingR = Bicycle Route MarkingS = StreetscapeU = UnfundedUC = Under Construction

Pro	ject ID Project/Facility Name	From	То	Length (Miles)	Responsible Agencies	Bike Side Spo Lane Path walk Are	ot/ In In ea CLRP TIP Sta	Cost <sub>tus</sub> (\$1,000s)
160	Suitland Parkway Trail	Washington D.C.	MD 4	6	National Park Servic	e 🗌 🖌 🗌		\$0
161	Temple Hills Road	Saint Barnabas Road	Piscataway Road	6	Prince Georges County			
162	Tinkers Creek Trail	MD 5	Piscataway Creek	8	M-NCPPC, Prince Georges County			\$1,600
163	Tucker Road	Saint Barnabas Road	Allentown Road	3	Prince Georges County			
164	US 1	Sunnyside Avenue	Contee Road	4	MDOT			\$1,000
165	US 1 (College Park)	Sunnyside Avenue	Albion Road	2	MDOT			\$0
166	WB&A Spur Trail	WB&A Trail	Fran Uhler Natural Area	2	M-NCPPC, Prince Georges County			
167	Western Branch Trail	Lottsford Road	Upper Marlboro	10	M-NCPPC, Prince Georges County			\$3,100

	Project ID Project/Facility Name	From	То	Length (Miles)	Responsible Agencies	Bike Side Spot/ In In COSt Lane Path walk Area CLRP TIP Status (\$1,000s)
168	Woodrow Wilson Bridge	Oxon Hill Road	Virginia	1	MDOT	□ <b>✓</b> □ B <b>✓ ✓</b> UC \$0

15-Jun-06 Prince George's County, Alexandria, Fairfax County, MD

DRAFT	Key to	B=Bridge or Tunnel C = Complete F = Fully Funded I = Intersection Improvement O = Other P = Partially Funded
	Codes	PK = Bicycle Parking R = Bicycle Route Marking S = Streetscape U = Unfunded UC = Under Construction

	Project ID	Project/Facility Name	From	То	Length (Miles)	Responsible Agencies	Bike Side Lane Path walk	Spot/ Area (	In CLRP	In TIP S	Status	Cost (\$1,000s)
169	9C61	Bicycle Route System Improvements	City wide project			City of Rockville					Ρ	\$1,057
170	3E60	Ped/Bike Bridge Over I-270 along MD 28	Adclare Rd and Nelson Street	Darnestown Road	2	City of Rockville, Maryland State Highway Administration		В			F	\$4,714
171	4B71	Pedestrian Safety	Citywide project			City of Rockville					Ρ	\$1,598
172	6B21	West End Sidewalks	Rockville's West End neighborhood			City of Rockville					Ρ	\$370

	Project ID	Project/Facility Name	From	То	Length (Miles)	Responsible Agencies	Bike Side Lane Path walk	Spot/ In Ir Area CLRP T	Cost P Status (\$1,000s)
173	BL-10	Carroll Avenue Bike Lanes	DC Line	Piney Branch Road		M-NCPPC, Montgomery County			\$0

	Project ID	Project/Facility Name	From	То	Length (Miles)	Responsible Agencies	Bike Lane			Spot/ Area C		In TIP	Status	Cost (\$1,000s)
174		Arlington Boulevard Ped and Bike Trail	Fairfax Drive	N. Meade Street	1	Arlington County, Arlington County		✓				✓		\$350
175		Arlington Boulevard Ped and Bike Trail	N. Meade Street /Arl. Blvd. Bridge	Service Rd	1	Arlington County, Arlington County		✓						\$120
176	BK87	Arlington Boulevard Trail Renovation			1	Arlington County, VDOT		✓					F	\$60
177	BK01	Bike Lane Implementation			23	Arlington County	✓							\$120
178	BK59	CUSTIS TRAIL WESTOVER UNDERPASS @ I-66				Arlington County								\$75
179	BK93	General Trail Improvements				Arlington County							F	\$130
180		George Washington Parkway Crossing	Mt. Vernon Bike/Ped Trail	Potomac Yard North Tract		Arlington County, Arlington Co. DPW				В		✓		\$1,000
181		Hoffman - Boston Connector			1	Arlington County							Ρ	\$400
182	BK39	I-395 Shirlington Underpass, Four Mile Run Trail	Shirlington Rd	West Glebe Rd	1	Arlington County, VDOT		✓		В			Ρ	\$2,000
183	BK29	OLD DOM. DR Lee Hy TO Glebe Rd				Arlington County, VDOT								\$1,000
184		Old Jefferson Davis Highway/ Mount Vernon Trail CO				National Park Service				В			U	
185		Pedestrian Improvements	in Ballston			Arlington County, Arlington Co. DPW								\$500
186		Potomac Yard/Four Mile Run Trail				Arlington County								\$350
187	BK91	Route 110 Trail	Memorial Dr	Washington Blvd	1	Arlington County, National Park Service		✓					Ρ	\$500
188		Sidewalk Projects				Arlington County, VDOT			✓				Ρ	\$1,000
189	00062146	VA 120 (Glebe Road)	@ 27th Street	@ Ramp from I-395 to West Glebe Road		Arlington County, Arlington County								\$100
15-	Jun-06		Arlington Co	unty,VA										Page 20
D	RAFT	Key to B=Bridge or Tunnel	C = Complete F = Fully F	unded I = Intersection	Improve	ment O = Other	P =	Pa	rtiall	y Fu	nde	d		

PK = Bicycle Parking R = Bicycle Route Marking S = Streetscape U = Unfunded UC = Under Construction Codes

Project	ID Project/Facility Name	From	То	Length (Miles)	Responsible Agencies	Bike Side Sp Lane Path walk Ar	ot/ In In ea CLRP TIP Statu	Cost s (\$1,000s)
190	VA 120 (Glebe Road)	N. Randolph Street	Fairfax Drive		Arlington County, Arlington Co. DPW			\$1,000
191	VA 123 Bike Path	VA 120	Fairfax County Line		Arlington County, Arlington Co. DPW			\$100
192 BK88	Washington Blvd Trail Phase I	Arlington Blvd	Walter Reed		Arlington County, VDOT		F	\$350
193 BK94	Washington Blvd Trail Phase II	Walter Reed Dr	S. Rolfe St.	1	Arlington County		□ □ P	\$1,000
194	WO&D Trail Widening				Arlington County			\$60

	Project ID Project/Facility Name	From	То	5	Responsible Agencies	Bike Lane Patl	Side n walk	Spot/ In Area CLRP	In TIP S	<sub>tatus</sub> (	Cost (\$1,000s)
195	Mount Vernon Trail Extension	Beltway	Theodore Roosevelt Island	9	National Park Service Fairfax County	. 🗌 🗸				U	

	Project ID	Project/Facility Name	From	То	Length (Miles)	Responsible Agencies	Bike Lane Path	Side walk	Spot/ Area (	In CLRP	In TIP \$	Status	Cost (\$1,000s)
196	k	Braddock Road Metro Intersection Improvements	Queen Street	Braddock Road	1	City of Alexandria						Ρ	\$200
197	а	Chambliss Stream Crossing	Chambliss Street Across Holmes Run.	N. Chambliss St	1	City of Alexandria			В	✓		U	\$400
198	d	Duke Street Pedestrian Bridge	Cameron Station	Ben Brennman Park	1	City of Alexandria			В	✓		F	\$500
199	b	Duke Street Pedestrian Improvements	Duke Street	Carlyle Avenue	1	City of Alexandria			I			F	\$195
200	е	Eisenhower Multi-Use Trail	Cameron Run East	Telegraph Road	2	City of Alexandria				✓	✓	F	\$835
201	f	I-395 Tunnel Improvements	Holmes Run	I-395		City of Alexandria					✓	Ρ	\$250
202	j	King Street/Walter Reed/Beauregard Interchange	@King St./Beauregard St. and Walter Reed Dr.	28th Street	1	City of Alexandria, VDOT						F	\$2,000
203	h	Pedestrian Improvements on Mount Vernon	Glebe Road	Four Mile Run	0	City of Alexandria			S			Ρ	\$350
204	g	Potomac Yard Park	Braddock Road Metro	Four Mile Run	2	City of Alexandria, VDOT						F	
205	m	Sidewalk Construction (FY07)	Citywide	Citywide		City of Alexandria, VDOT		✓		✓		U	\$750
206	С	Transit Facilities Pedestrian Improvements(FY02)	citywide	citywide	6	City of Alexandria, VDOT		✓			✓	F	\$938
207	i	Woodrow Wilson Memorial Bridge - Trail	Prince George's County, MD	Mount Vernon Trail, Alexandria	6	City of Alexandria	<ul><li></li></ul>		В	✓	✓	UC	24,400

	Project ID	Project/Facility Name	From	То	Length (Miles)	Responsible Agencies	Bike S Lane Path w	Spot/ In Area CLR	In P TIP	Status	Cost (\$1,000s)
208	00052472	Accotink Gateway Connector Trail	King Arthur Drive	Wakefield Park	1	VDOT , Fairfax County		✓		F	\$2,619
209	XL	Accotink Stream Valley-Dam	Old Keene Mill Road		0	Fairfax County Park Authority		✓	✓		
210	XL	Arlington Boulevard	Peyton Randolph Drive		0	Fairfax County		В			
211	XL	Arlington Boulevard	Patrick Henry Drive		0	Fairfax County			✓		
212	XL	Arlington Boulevard	Graham Road		0	Fairfax County					
213	58601	Arlington Boulevard (US 50)	Jaguar Trail	Seven Corners	0	VDOT		B		Ρ	\$1,797
214	XL	Braddock Road	Guinea Road		0	Fairfax County					
215	XL	Braddock Road	Rolling Road		0	Fairfax County					
216	XL	Braddock Road	Wakefield Chapel Road		0	Fairfax County					
217	XL	Burke Center Parkway	Roberts Road		0	Fairfax County					
218	XL	Centreville Road	Compton Road		0	Fairfax County Park Authority		I			
219	XL	Centreville Road	Green Trails Boulevard		0	Fairfax County					
220	XL	Centreville Road	New Braddock Road		0	Fairfax County					
221	XL	Centreville Road	Sunrise Valley Drive		0	Fairfax County					
222	XL	Chain Bridge Road	International Drive		0	Fairfax County					
223	UPC5010	Columbia Pike	Powell Lane	Homes Run	0	Fairfax County, VDOT					\$1,106
224	00063578	Cross County Trail	Great Falls Park to Alban Road	Lake Accotink Dam to Hunter Village Drive segment	5	VDOT, Fairfax County Park Authority		✓		F	\$1,060
225	XL	Danbury Forest	Lake Accotink Park		0	Fairfax County Park Authority		В			
226	XL	Dolley Madison Boulevard	Great Falls Street/Lewinsville Road		0	Fairfax County					
15-	Jun-06		Fairfax Co	unty,VA							Page 24

DRAFTKey to<br/>CodesB=Bridge or TunnelC = CompleteF = Fully FundedI = Intersection ImprovementO = OtherP = Partially FundedPK = Bicycle ParkingR = Bicycle Route MarkingS = StreetscapeU = UnfundedUC = Under Construction

	Project ID	Project/Facility Name	From	То	Length (Miles)	Responsible Agencies	Bike Lane		Side walk	Spot/ Area	In CLRP	In TIP	Status	Cost (\$1,000s)
227	XL	Fairfax County Parkway	Hooes Road/Seabrook Lane		0	Fairfax County				Ι				
228	XL	Fairfax County Parkway	Old Keene Mill Road		0	Fairfax County				Ι				
229	57167	Fairfax County Parkway	123	7	9	VDOT , Fairfax County		✓			$\checkmark$		Ρ	
230	XL	Gallows Road	Annandale Road/Hummer Road		0	Fairfax County				Ι				
231	XL	Georgetown Pike	Applewood Lane to Ad Hoc Road		0	Fairfax County					✓	✓		
232	XL	Georgetown Pike	Innsbruck Road	River Bend Road	0	Fairfax County								
233	XL	Georgetown Pike	Applewood Lane	Seneca Road	0	Fairfax County								
234	60337	Georgetown Pike Multi-Use Path	I-495	Route 7	2	VDOT		✓			✓	✓	Ρ	\$845
235		Great Falls Street Trail	Crutchfeild Street	Hutchinson Street		Fairfax County, VDOT							UC	\$596
236	XL	Grist Mill Park			0	Fairfax County								
237	XL	Holmes Run Stream Valley			0	Fairfax County Park Authority				В				
238	XL	Hunter Mill Road	Sunrise Valley Drive		0	Fairfax County				Ι				
239	70736	Huntington Metro Station Vicinity	Pedestrian Improvements			VDOT , Coalition for Smarter Growth				S	✓		Ρ	\$174
240	XL	Laurel Hill Greenway			1	Fairfax County Park Authority		✓						
241	XL	Lee Highway	Gallows Road		0	Fairfax County Park Authority				Ι				
242	XL	Lee Highway	Shirley Gate Road to Old Centreville Road		0	Fairfax County								
243	XL	Lee Highway	Monument Drive		0	Fairfax County				Ι				
244	XL	Lee-Jackson Highway	Majestic Lane		0	Fairfax County				Ι				
245	XL	Lee-Jackson Highway	Alder Woods Lane		0	Fairfax County				Ι				

DRAFT Key to Codes

to B=Bridge or Tunnel C = Complete F = Fully Funded I = Intersection Improvement O = Other P = Partially Funded es PK = Bicycle Parking R = Bicycle Route Marking S = Streetscape U = Unfunded UC = Under Construction

	Project ID	Project/Facility Name	From	То	Length (Miles)	Responsible Agencies	Bike Side Spot/ In In In Lane Path walk Area CLRP TIP Status (\$1,000s)
246	XL	Lee-Jackson Highway	Stringfellow Road		0	Fairfax County	
247	XL	Leesburg Pike	Dranesville Road		0	Fairfax County	
248	XL	Leesburg Pike	Glen Carlyn Road		0	Fairfax County	
249	XL	Leesburg Pike	Magarity Road		0	Fairfax County	
250	XL	Leesburg Pike	Patrick Henry Drive		0	Fairfax County	
251	XL	Leesburg Pike	Patterson Road		0	Fairfax County	
252	XL	Leesburg Pike	South Jefferson Street		0	Fairfax County	
253	XL	Leesburg Pike	Tyco Road/Westwood Center Drive		0	Fairfax County	
254	XL	Leesburg Pike	Tysons Square Center Entrance		0	Fairfax County	
255	XL	Leesburg Pike			3	Fairfax County	
256	XL	Leesburg Pike	Baron Cameron Avenue/Springvale Road		0	Fairfax County	
257	XL	Lewinsville Road	Balls Hill Road		0	Fairfax County	
258	XL	Little River Turnpike	Braddock Road		0	Fairfax County	
259	XL	Little River Turnpike	Backlick Road		0	Fairfax County	
260	63717	Little River Turnpike	Oasis Drive	Beauregard	0	VDOT, Fairfax County	□ □ B <b>∨</b> □ F \$1,318
261	XL	Loisdale Road	Loisdale Court/Springfield Mall Entrance		0	Fairfax County	
262	98	Lorton Road Widening	US 1	Route 748	1	VDOT	
263	XL	Mason Neck Trail	Richmond Highway to Pohick Bay Park		3	Fairfax County	
264	XL	North Kings Highway	Huntington Metro		0	Fairfax County	

DRAFT Key to Codes

to B=Bridge or Tunnel C = Complete F = Fully Funded I = Intersection Improvement O = Other P = Partially Funded les PK = Bicycle Parking R = Bicycle Route Marking S = Streetscape U = Unfunded UC = Under Construction

	Project ID	Project/Facility Name	From	То	Length (Miles)	Responsible Agencies	Bike Lane Pat	Spot/ Area	In CLRP	In TIP	Status	Cost (\$1,000s)
265	00063577	NoVi (Northern Vienna) Trail	Phase I		1	VDOT, Fairfax County			✓		Ρ	\$303
266	XL	Old Keene Mill Road	Shiplett Boulevard		0	Fairfax County		Ι				
267	XL	Old Keene Mill Road	Sydenstricker Road		0	Fairfax County		I				
268	T1116	Pedestrian Improvements, Bus Stop Access Improvmen	Bike Projects	Fairfax County		Fairfax County, VDOT				✓		\$0
269	XL	Reston Parkway	Sunrise Valley Drive		0	Fairfax County		Ι				
270	XL	Richmond Highway	Napper Road		0	Fairfax County						
271	XL	Richmond Highway	Kings Highway		0	Fairfax County		I				
272	XL	Richmond Highway	Kings Village Drive		0	Fairfax County						
273	XL	Richmond Highway	Dart Drive		0	Fairfax County						
274	XL	Richmond Highway	Sacramento Drive		0	Fairfax County		I				
275	XL	Richmond Highway	Buckman Road (south)		0	Fairfax County						
276	XL	Richmond Highway	Janna Lee Avenue		0	Fairfax County						
277	XL	Richmond Highway	Woodlawn Court to Sacramento Drive		0	Fairfax County						
278	XL	Richmond Highway	Belford Drive (south)		0	Fairfax County		Ι				
279	XL	Richmond Highway	Buckman Road (north)		0	Fairfax County						
280	XL	Richmond Highway	Kings Highway		0	Fairfax County						
281	XL	Richmond Highway	Arlington Drive		0	Fairfax County		I				
282	XL	Richmond Highway	Mohawk Lane		0	Fairfax County		I				
283	XL	Richmond Highway	Backlick Road		0	Fairfax County		I				
284	XL	Richmond Highway	Sherwood Hall Lane		0	Fairfax County						
285	XL	Richmond Highway	Southgate Drive		0	Fairfax County		I				

Page 27

DRAFT Key to Codes

B=Bridge or Tunnel C = Complete F = Fully Funded I = Intersection Improvement O = Other P = Partially Funded PK = Bicycle Parking R = Bicycle Route Marking S = Streetscape U = Unfunded UC = Under Construction

	Project ID	Project/Facility Name	From	То	Length (Miles)	Responsible Agencies	Bike Lane P		le Sp lk Ai	oot/ I rea CL	n _RP <sup>-</sup>	In TIP St	atus	Cost (\$1,000s)
286	XL	Richmond Highway	Frye Road to Sky View Lane		0	Fairfax County			]					
287	XL	Richmond Highway	Lockheed Boulevard		0	Fairfax County			]	[				
288	XL	Richmond Highway	Fordson Road		0	Fairfax County			]	[				
289	XL	Richmond Highway	Old Mill Road/Mt. Vernon Memorial Highway		0	Fairfax County			]	Ι			F	
290	XL	Richmond Highway	Sacramento Drive	Old Mill Rd.	0	Fairfax County			]					
291	XL	Richmond Highway	Popkins Lane		0	Fairfax County			]					
292	XL	Richmond Highway	Lukens Lane		0	Fairfax County			]	[				
293	XL	Richmond Highway	Highland Lane to Woodlawn Court		0	Fairfax County			]					
294	XL	Richmond Highway	Shields Avenue to Quander Road		0	Fairfax County			]					
295	XL	Richmond Highway	Ladson Lane		0	Fairfax County				[				
296	XL	Richmond Highway	Quander Road		0	Fairfax County			]					
297	XL	Richmond Highway	Frye Road		0	Fairfax County			]	[				
298		Richmond Highway (US 1) Ped & Bike Improvements	VA 619 (Old Mill Rd)	VA 1332 (Huntingdon Ave)	7	Fairfax County, VDOT			]			✓	Ρţ	\$8,000
299	XL	Richmond Highway Bus Stop Walkways			0	Fairfax County			]					
300	52327	Route 7 Widening	Rolling Holly Drive	Tyco Road	1	VDOT			]	•			Ρ	
301	XL	Stringfellow Road	Lee-Jackson Highway to I-66		4	Fairfax County			]					
302	XL	Sunset Hills Road	Plaza America		0	Fairfax County			]	S [				
303	XL	Sunset Hills Road	Dressage Drive to Lake Fairfax Business Park		0	Fairfax County			]					
304	XL	Sunset Hills Road	Plaza America		0	Fairfax County			]	[				
305	XL	Sunset Hills Road	Reston Parkway to Wiehle Avenue		0	Fairfax County			]					
15-	Jun-06		Fairfax Cou	unty,VA									Pa	age 28
D	RAFT	Key to B=Bridge or Tunnel	C = Complete F = Fully F	Funded I = Intersection I	mprove	ment O = Other	P =	Parti	ally	Fun	dec	ł		

B=Bridge or Tunnel C = Complete F = Fully Funded I = Intersection Improvement O = Other P = Partially Funded Key to Codes PK = Bicycle Parking R = Bicycle Route Marking S = Streetscape U = Unfunded UC = Under Construction

	Project ID	Project/Facility Name	From	То	Length (Miles)	Responsible Agencies	Bike Lane Pa	Side ath walk	Spot/ Area	In CLRP	In TIP	Status	Cost (\$1,000s)
306	XL	Sunset Hills Road	Fairfax County Parkway to Reston Parkway		0	Fairfax County							
307	70632	Trail and Pedestrian Improvements	Fairfax County wide			VDOT , Fairfax County			S			F	\$1,600
308	72295	Trap Road	Wolf Trap Farm Park	Beulah Road	1	VDOT			В	✓		F	\$2,242
309	70602	Tysons Corner	Pedestrian Improvements Identified by	the HJR 276 Committee		VDOT , Fairfax County			S	✓		F	\$300
310	XL	Tysons Priority Access Improvement Projects			0	Fairfax County							
311	11395	US 29 Widening	WEST MERRILEE DRIVE	ROUTE I-495	1	VDOT, Fairfax				✓		F	
312	56780	US 50 install median barrier & fence	VA 7	Patrick Henry Drive	0	VDOT , Fairfax County			S	✓		F	\$601
313	56866	US 50 Pedestrian Bridge	Vicinity of the Seven Corners Shopping Center			VDOT , Fairfax County			В	✓		F	\$5,000
314	00052041	VA 193 - Georgetown Pike Trail	Innsbruck Road	River Bend Road	4	VDOT , Fairfax County				✓		UC	\$1,468
315	XL	Walker Road	Arnon Chapel Road to Verizon property		0	Fairfax County							
316	XL	Walker Road	Great Falls School	Beach Mill Road	0	Fairfax County							
317	00052042	Walker Road Trail	Columbine Street	Colvin Run Road	2	VDOT , Fairfax County				✓		UC	\$447
318	16504	West Ox Road (route 608)	Ox Trail Road	Lawyers Road	2	VDOT				✓		UC	

Project ID Project/Facility Name	From	То	Length (Miles)	Responsible Agencies	Bike Side Spot/ In In Lane Path walk Area CLRP TIP Status (\$1,000s)
319 00052449 Sugarland Run Trail	W&OD Trail	Fairfax County's Sugarland Run Trail	1	VDOT, Town of Herndon	□ 🖌 🗋 B 🖌 📄 F \$931

	Project ID	Project/Facility Name	From	То	Length (Miles)	Responsible Agencies	Bik Lar		Side th walk	Spot/ Area	In CLRP	In TIP	Status	Cost (\$1,000s)
320	18992	BATTLEFIELD PARKWAY - 4 LANES ON 6 LANE R/W	KINCAID BOULEVARD	ROUTE 7	1	VDOT		] 🔽	' <b>✓</b>	]	✓		Ρ	
321	58922	Loudoun Cnty Pkwy WIDEN UNPVD 2 LN TO 4 LNS DIV ON	1.9 MILES SOUTH ROUTE	0.5 MILE SOUTH ROUTE 7	1	VDOT				]	✓		Ρ	
322	13096	Old Ox Road Widening (Rt. 606)	Mills Road (Rt. 621)	Dulles Greenway (Rt. 267)	5	VDOT		] 🗸	]	]	✓		UC	
323	70760	PACIFIC BOULEVARD (MPO PROJECT	AUTOWORLD DRIVE (NORTHERN TERMINUS	SEVERN WAY	1	VDOT				]	✓		Ρ	
324	00063583	VA 846 (Sterling Boulevard Landscaping)	VA 28	US 7		VDOT , Loudoun County				] S	✓		F	\$53
325	00056454	W&OD Trail Extension	W&OD Trail End (Purcellville)	Round Hill	3	VDOT , Loudoun County				]	✓		Ρ	\$1,700
326		W&OD/White's Ferry Connection to C&O	W&OD	Potomac River at White's Ferry	3	VDOT, Northern Virginia Regional Parl		]		]			U	

Project ID	Project/Facility Name	From	То	Length (Miles)	Responsible Agencies	Bike Lane Path	Side S walk A	Spot/ In Area CLRP	In TIP Status	Cost (\$1,000s)
327 68757	US 50 widening	Pleasant valley Drive	Lee Road	1	VDOT			$\checkmark$	P	

	Project ID Project/Facility Name	From	То	Length (Miles)	Responsible Agencies	Bike Side Spot/ In In In Lane Path walk Area CLRP TIP Status (\$1,000s)
328	Woodrow Wilson Bridge Project	Md State Line	Telegraph Road	2	VDOT	□ 🖌 📄 B 🖌 📄 UC

Project I	D Project/Facility Name	From	То	Length (Miles)	Responsible Agencies	Bike Side Spot/ In In COSt Lane Path walk Area CLRP TIP Status (\$1,000s)
329 00016090	Accotink Gateway Connector Trail	Daniel's Run	Pickett Road	1	VDOT , City of Fairfax	□ <b>✓</b> □ UC \$1,762
330 16632	US 29 (Lee Highway) Fairfax Circle	@ US 50			VDOT , City of Fairfax	□ □ B <b>⊻</b> □ P

	Project ID Project/Facility Name	From	То	 Responsible Agencies	Bike Side Spot/ In In In Lane Path walk Area CLRP TIP Status (\$1,000s)
331	00056456 Manassas Drive Sidewalk	Andrew Drive	Euclid Avenue	VDOT, City of Manassas Park	□ □ S ✔ □ UC \$195

City of Manassas Park , VA

	Project ID Project/Facility Name	From	То	Length Res (Miles) Age	esponsible Bike Bike Lane	Side Spot/ In In Path walk Area CLRP TIP	Cost <sub>Status</sub> (\$1,000s)
332	00018782 Old Town Manassas City Square, Walkways, & Crosswa	Phase I and Phase II		VDO	ТОСТ	□ □ B <b>∨</b> □	UC \$557

Project	t ID Project/Facility Name	From	То	Length Responsible (Miles) Agencies	Bike Side Spot/ In In Lane Path walk Area CLRP TIP Status <b>(\$1,000s)</b>
333	Interstate Bicycle Route 1			VDOT	
334 70661 +	+ 1 NOVA signal Program	District Wide		VDOT	□ □ B □ P \$9,000

	Project ID	Project/Facility Name	From	То	Length (Miles)	Responsible Agencies	Bike S Lane Path v	Side Spot valk Area		In TIP Status	Cost (\$1,000s)
335	13532 + 1	123 Widnening	Davis Road	South Burke Lake Road	9	VDOT			$\checkmark$	UC	\$6,181

	Project ID	Project/Facility Name	From	То		Responsible Agencies	Bike Side Lane Path walk	Spot/ Area C	In CLRP	In TIP ६	Status	Cost (\$1,000s)
336	72726	234 Off-Road Multi Use Trail	Lake Jackson Drive	PW Parkway	1	VDOT			✓		UC	\$649
337	71721	Bus 234 Add Signalized Crosswalks	All Major Intersections	All Major Intersections		VDOT		В	✓		F	\$650
338	71758	Bus 234 Sidewalk/Ramps Improvments	Balls Ford Road	Godwin Drive		VDOT		В	✓		F	\$515
339	14932	Linton Hall Road Widening	Glenkirk Road	Devlin Road	3	VDOT			✓		UC	
340	17984 + 5	Route 28 Trail Extension	Fauquier Co. Line	Vint Hill Road	7	VDOT			✓		P :	\$3,000
341	00050009	VA 234 Bike Trail	US 1 to I-95 &	Montclair to vic. Manassas	9	VDOT			✓		P	\$1,161

	Project ID	Project/Facility Name	From	То		Responsible Agencies	Bike Side Spot/ In In Lane Path walk Area CLRP TIP Status	Cost (\$1,000s)
342	77170	Multiple Sidewalk Enhancements	Purceville			VDOT	□ □ □ S □ □ F	\$500
343		PURCELLVILLE - BICYCLE ACCESS TO HIGH SCHOOL & W&O	Main Street	W&OD Trail	1	VDOT	□ <b>∨</b> □ □ F	\$460

Project II	D Project/Facility Name	From	То	Length Responsible (Miles) Agencies	Bike Side Spot/ In In In Lane Path walk Area CLRP TIP Status (\$1,000s)
344 00016636	Pedestrian/Bicycle Plaza & Pathways	Town of Clifton	- Phase II	VDOT	□ □ S 🗹 □ UC \$70

15-	Jun-	06

Project ID	Project/Facility Name	From	То	3	Responsible Agencies	Bike Side Spot/ In In Lane Path walk Area CLRP TIP Status (\$1,000s)
345 00063581	Main Street	Town of Hamilton (Improvements)			VDOT , Town of Hamilton	□ □ S ☑ □ P \$47

Projec	t ID Project/Facility Name	From	То	Length Responsible (Miles) Agencies	Bike Side Spot/ In In In Lane Path walk Area CLRP TIP Status (\$1,000s)
346 70587	PEDESTRIAN STUDY & IMPROVEMENTS	Town of Hillsboro	On 704	VDOT	□ □ S □ F \$2,482

Project ID Project/Facility Name	From	То	Length (Miles)	Responsible Agencies	Bike Side Spot/ In In In Lane Path walk Area CLRP TIP Status (\$1,000s)
347 00017601 Ped & Bike Path Network	Town of Lovettsville		6	VDOT, Town of Lovettsville	□ 🗹 🗌 S 🔲 🖸 P \$450

Town of Lovettsville, VA

Project ID	) Project/Facility Name	From	То	Length (Miles)	Responsible Agencies	Bike Side Lane Path walk	Spot/ In Area CLRP	In TIP Status	Cost (\$1,000s)
348 00056458	Riverfront Boardwalk	on the Occoquan River	in the Town of Occoquan		VDOT, Town of Occoquan		S 🗌	UC	\$546

Project ID Project/Facility Name	From	То	Length Responsible (Miles) Agencies	Bike Side Spot/ In In Lane Path walk Area CLRP TIP Status (\$1,000s)
349 00060040 Potomac Avenue	CSX Railroad	Potomac River	VDOT, Town of Quantico	□ □ □ S 🗹 □ P \$871
350 00017600 Potomac Transportation Facility	AMTRAK / VRE Station	Potomac River	VDOT, Town of Quantico	□ □ □ S □ □ UC \$512

Pro	oject ID Project/Facility Name	From	То	Length         Responsible         Cost           (Miles)         Agencies         Lane Path walk         Area CLRP TIP Status         (\$1,000s)
351	Boundary Channel Bridge Trails			National Park Service
352	Rosslyn Circle Crossing	N. Lynn St	Ft. Myer Dr	Arlington County, C S F F \$1,000 VDOT
353	Theodore Roosevelt Bridge			DDOT, National Park

## Appendix B

Data Dictionary and Sample Database Entry Form For the Regional Database of Bicycle and Pedestrian Projects in the Long-Range Bicycle and Pedestrian Plan for the National Capital Region

FIELD	EXPLANATION
COG Project ID	COG's internal identifying number for the project in this
5	database
Agency Project ID	The responsible agency's project identifying number
Project Name	Descriptive name provided by the sponsoring agency
From	Project Limits
То	Project Limits
Length of Project	Length of the project from start to finish. Example: if a project consists of four miles of road with a continuous bike lane and sidewalk, the project length is four miles.
Jurisdiction(s)	Jurisdiction(s) in which the project is located
State	State or States in which the project is located.
Agency	Lead agency that is responsible for implementing the project
Secondary Agency	Other agency involved in the project
Cost	In thousands of dollars. As many projects in the plan may not be built for many years, and have not been fully scoped, this can be a very rough estimate. If a project is part of a larger project the total project cost is <i>not</i> listed, only that portion of the cost which is attributable to the bicycle or pedestrian facility. Use of a rule of thumb for such estimates was acceptable, i.e. 3% of total project cost. Many projects do not have a cost estimate available.
URL for more project information	If the project has a web site, or if the agency has more detail on its web site, the URL may be listed.
Project Manager Name	If the project has a project manager, his or her name may be listed.
Project Manager's Phone	
Project Manager's E-mail	
Project is in the CLRP	Project is in the 2005 Financially Constrained Long-Range Transportation Plan for the National Capital Region, and therefore is officially considered to have funding available to support project completion.
Project is in the TIP	Project is in the most recent National Capital Region Transportation Improvement Program with specific funding amounts identified for program completion.

Project is Part of a Larger	Is the project part of a larger project, i.e. a hig	hway bridge or
Project	transit project?	nway, bridge, br
Length of Bike Lane	Bike lanes are striped lanes at least 4' wide in	the public right-
	of-way, marked for the exclusive use of bicyc	1 0
	lane is found on both sides of the street for for	
	should be reported as four miles of bike lane,	not eight.
Length of Multi-Use Path	A paved or hard-surface path separated from t	traffic, officially
	designated for bicycles and other non-motoriz	ed users.
	Should be at least 8' wide.	
Length of Sidewalk	Sidewalks are usually concrete, less than 8' w	vide, and have
	other design characteristics (street furniture, li	imited sight-
	lines) that render them unsuitable for all but the	ne slowest
	bicyclists.	
Type of Spot/Area	For non-linear projects. The pull-down menu	gives the
Improvement	following options:	
	Type of Improvement	Code Letter
	1. Pedestrian Intersection Improvement	Ι
	2. Pedestrian/Bicycle Bridge or Tunnel	В
	3. Traffic Calming	TC
	4. Streetscape/Pedestrian Improvements	S
	5. Bicycle Parking	Р
	6. Bicycle Route Marking	BR
	7. Other	0
Path Alignment	Is the multi-use path along a road, or is it on it	-
	way? This field is meant to distinguish betwe	-
	which are built adjacent to a road and cross nu	
	ways and intersections, and a multi-use path o	-
	of way, such as an old railroad, canal tow-path	
	valley. Paths built along limited-access highw	•
	parkways such at the Mount Vernon Trail sho	
	being built on an independent route, since the	-
	intersection or driveway conflicts, and are set	
Status	distance from the roadway for most of their le	0
Status	The pull-down menu offers the following opti	
	1. Fully Funded <sup>1</sup>	<u>Code Letter</u> F
	2. Partially Funded	P
	3. Unfunded	r U
	4. Under Construction	UC
	5. Complete	C C
	5. Complete	C

<sup>&</sup>lt;sup>1</sup> "Funded" indicates that the sponsoring agency has considered funding for completion of this project to be reasonably available within projected funding sources. "Unfunded" indicates, that while the project has been identified, there is no projected funding to support its completion at this time.

	This database is mean to list planned facilities rather than existing facilities, but as time passes many projects in it will be completed.
Year of Completion or Implementation	If the project has been completed or implemented, in what year did that happen?
Project Within a Regional Activity Center	Is the project located with in a regional activity center or cluster? See the link for on-line information on activity centers and clusters. A paper map of centers and clusters, which is easier to read than the one on the web, will be sent to anyone who requests one.
Project is Between Regional Activity Centers	Project connects one regional activity center or cluster with another
Maintenance	Project is primarily maintenance or reconstruction of an existing facility
Project Connects to a Transit Facility	Project connects to a metrorail station, commuter rail station, or transit center
BikeNetConnect	Bicycle Network Connectivity. Does the project improve the connectivity of the regional bicycle network? Does it connect to any existing bicycle facilities?
Pedestrian Safety Project	Is the primary purpose of this project to improve pedestrian safety?
Project Identified as a 2005 Regional Priority*	Is the project one of the regional priority unfunded bicycle and pedestrian projects recommended by the Transportation Planning Board for consideration in the TIP? (The most recent list, with descriptions, is shown below)



## Transportation Planning Board National Capital Region Bicycle and Pedestria

## **Bike Ped Plan**

Related Records: Agency

- Results List All

COG Project ID 167967369 **Agency Project** ID Metropolitan Branch Trail **Project Name** Union Station From Takoma Park То Length of 7 (miles) Project Construct a 7 mile trail along the red line from Union Station to Description 4 Washington Jurisdiction(s) DC State Ŧ DDOT ▼ Agency Secondary Agency 20000

(In Thousands)

www.metbranchtrail.com

Log Out

- Search

**B-4** (DRAFT)

4

Cost

**URL for More** 

Project Information Last

Project Manager's Name	Chris Holben
Project Manager's Phone	202 671 2638
Project Manager's Email	chris.holben@dc.gov
Project Is In the CLRP	E <sub>Yes</sub> E <sub>No</sub>
Corresponding CLRP Project ID	
Project Is In the TIP	E <sub>Yes</sub> E <sub>No</sub>
Corresponding TIP Project ID	
Project Is Part of a Larger Project	C <sub>Yes</sub> C <sub>No</sub>
Length of Bike Lane	2 (miles)
Length of Multi- Use Path	5 (miles)
Length of Sidewalk	(miles)
Type of Spot/Area Improvement	
Path Alignment	
Status	Partially Funded
Year of Completion or Implementation	2009
Project Within a Regional Activity Center	Yes No Information on Regional Activity Centers
Project Is Between Regional	E <sub>Yes</sub> E <sub>No</sub>

B-5 (DRAFT)

Activity Centers		
Maintenance	🖸 <sub>Yes</sub> 🖸 <sub>No</sub>	
Project Connects To a Transit Facility	🖸 <sub>Yes</sub> 🖾 <sub>No</sub>	
BikeNetConnect	🖸 <sub>Yes</sub> 🖾 <sub>No</sub>	
Pedestrian Safety Project	🖸 <sub>Yes</sub> 🖸 <sub>No</sub>	
Project Is In Local Plan	C <sub>Yes</sub> C <sub>No</sub>	
Project I dentified as a 2005 Regional Priority	C <sub>Yes</sub> C <sub>No</sub>	
Comments		
Record Last Modified On		
	Fir <u>s</u> t	Previou <u>s</u>
Update Delete	Back To Results Reset	

## Appendix C

Bicycle and Pedestrian Projects In the 2004 CLRP

#### 2005 CLRP Bicycle and Pedestrian Project List

Facility	From	То	Complete In	Cost (\$1,000s)
District of Columbia				
District-wide Bicycle Management Program	Bicycle racks, lanes and bicycle signs		2010	\$800
Watts Branch				\$400
Upper Rock Creek Trail Study			2007	\$1,000
Union Station Bike Station			2006	\$500
Oxon Run Trail Restoration			2007	\$500
Farragut Station Pedestrian Tunnel			2007	\$100
National Recreational Trails			2012	\$180
Kingman Island Trail Construction	Two island in the Anacostia River south (downstream)	Benning Road in Ward 7	2005	\$600
Rock Creek Park Trail			2007	\$2,000
Anacostia Riverwalk Trail	Benning Road to Naval Yard (West Side of River)	Bladensburg Trail to Naval Annex (East Side of River)	2012	\$14,400
Rose Park				\$300
Metropolitan Branch Trail			2009	\$12,500
East Entrance Foggy Bottom			2007	\$100
Cultural/Heritage Trail System	Citywide		2007	\$400
Maryland				
North Bethsda Trail Bridges	crossings of I-495 and I-270		2004	\$5,313
Old Columbia Pike	E. Randolph Road	MD 198	2005	\$2,847
Annual Bikeway Program	countywide			\$2,944
Forest Glen Pedestrian Bridges	west side of Georgia Avenue at Locust Grove Road	west side of Georgia Avenue at Forest Glen Road	2006	\$7,709
North Bethesda Trail	Twinbrook Metro Station	Norfolk/Rugby Ave. intersection (Bethesda)	2005	\$1,470
Mathew Henson Trail	Rock Creek Trail (west of Viers Mill Road)	Alderton Lane	2007	\$4,570
Metropolitan Branch Trail	Silver Spring Metro/Transit Center	Montgomery College Campus in Takoma Park	2007	\$5,300
Silver Spring Green Trail	Silver Spring Metro Station	Sligo Creek Hiker-Biker Trail	2007	\$6,060
Pedestrian Safety Program				\$1,200
Annual Sidewalk Program	countywide			\$7,800
Greentree Road Sidewalk	Old Georgetown Road	Fernwood Road	2009	\$1,788
Shady Grove Access Bike Path	Shady Grove Road	Redland Road	2008	\$2,714
US 29 Sidewalks	University Boulevard	New Hampshire Avenue	2006	\$3,820
Bethesda Bikeway and Pedestrian Facilities	Bethesda CBD		2008	\$3,340
Virginia				
Arlington Boulevard Ped and Bike Trail	Fairfax County Line	N. Meade Street	2025	\$735
Sidewalk Construction	City of Alexandria	City-wide	2007	\$938
Route 50 Pedestrian Improvements	Jaguar Trail	Patrick Henry Drive	2025	\$2,800
Sidewalks and Trails	Town of Hamilton			
VA 123 Bike Path	VA 120	Fairfax County Line	2015	\$3,600
W&OD Trail Extension	W&OD Trail End (Purcellville)	Bluemont	2025	\$1,800
Pedestrian/Bicycle Plaza & Pathways - Phase II	Town of Clifton			\$158
Manassas Drive	Western City Limit	Fairway Court		
Ped and Bike Improvements	in the Town of Occoquan			

Facility	From	То	Complete In	Cost (\$1,000s)
VA 237 (Washington Blvd.)	Sycamore Street	Arlington Boulevard	2015	\$2,000
Pedestrian Bridge over CSX Railroad	@ Veterans Memorial Park	DOT #860626C	2003	\$2,225
10th St. Pedestrian Facilities	Wilson Blvd.	Washington Blvd.	2007	\$500
Duke Street Ped Bridge	Near Cameron Station	Ŭ	2006	\$525
Bike and Ped Trails and Sidewalks	City of Alexandria			\$834
Metro Station (King Street)	City of Alexandria		2007	\$15,000
Trails/Sidewalks	County-wide		2006	\$2,037
Purcellville Multi-Purpose Trail	Main Street	Hirst Drive	2006	\$460
Sugarland Run Trail	W&OD Trail	VA 7	2025	\$700
Courthouse Metro Station			2007	\$2,060
Hunter Mill Road Bikeway	VA 123	VA 7	2025	\$400
Ped & Bike Path Network	Town of Lovettsville			\$422
Sidewalks and Trails	in the Town of Quantico			
Herndon Trail to Dulles Rail	Herndon @ Van Buren / Worldgate Intersection	Herndon - Monroe Dulles Rail Station	2010	\$425
W&OD Trail Crossing Improvements	Town of Herndon	Crestview Drive, Ferndale Avenue, Grace Street, etc.	2008	\$300
Town of Haymarket Streetscaping			2007	\$999
Town of Herndon	Town Hall Square	Streetscaping & bike / ped improvements	2008	\$774
VA 237 (Fairfax Dr.)	Courthouse Rd.	Ft. Myer Dr.	2004	\$500
Lorcom Lane	@ N. Randolph St.		2003	\$350
W&OD Trail Connector	W&OD Trail @ Leesburg	Whites Ferry/Potomac River	2025	\$800
George Washington Parkway Crossing	Mt. Vernon Bike/Ped Trail	Potomac Yard	2008	\$1,000
Accotink Gateway Connector Trail	Daniel's Run	Pickett Road		\$1,093
Bike and Ped Trails and Sidewalks	Various Locations - 2 Transit Stations &	4 Regional Malls		
VA 234 Business	City of Manassas WCL (Godwin Drive)	I-66		
Route 28 Trail Extension	Fauquier Co. Line	US 29 (Centreville)	2010	\$900
Sidewalks and Trails	City of Fairfax		2006	
Sidewalks, Trails, and Paths	County-wide	Prince William County		
Springfield to Tysons Corner Trail	Springfield	Tysons Corner	2025	\$1,500
Alex.'s Union Station / King Street Metrorail Station			2004	\$375
Rosslyn Circle Bike/Ped Grade Separation			2004	\$1,250
Old Town Manassas City Square, Walkways, & Cross	5		2004	\$313
US 50 Interstate Bicycle Route	Fauquier Co. Line	DC Line	2025	\$3,200
Pedestrian, Bicycle, and Transit Improvements	Arlington County,		2004	\$650
Sidewalks, Trails, and Paths	County-wide			
US 29 Trail	Fauquier Co. Line	WCL of City of Fairfax	2010	\$800
26th St. N.	Vermont	Yorktown	2010	\$450
Wolf Trap National Park Pedestrian Crossing	Wolf Trap National Park	VA 675 (Beulah Road)	2007	\$750
Old Dominion Drive (VA 309) (Pedestrian & Bicycle Ir	•	US 29 (Lee Highway)	2005	\$1,560
Multi-Use Trails in Arlington County	County-wide			\$1,200

\$147,038

## Appendix D

Bicycle and Pedestrian Projects In the FY 2006-2011 TIP

#### FY2006-2011 TIP Bicycle \_Pedestrian Projects

District of Columbia		
Anacostia Riverwalk Trail Benning Rd South to Navy Yard (West side of River) Bladensburg Trail to Naval Anne	ex (East Side of Ri 2012	\$14,400
Downtown Traffic Control Aides	2020	\$8,250
Metropolitan Branch Trail	2009	\$12,500
National Recreational Trails	2012	\$180
Oxon Run Trail Restoration	2007	\$500
Pedestrian Passageway/Tunnel1st Street Metro Station Kiosk1st Street, N.E. (Under H Street	Overpass) 2007	\$2,300
Rock Creek Park Trail	2007	\$2,000
Rose Park	2007	\$300
Union Station Bike Station	2006	\$500
Upper Rock Creek Trail Study	2007	\$1,000
Maryland		
ADA Compliance Transportation Access Countywide		\$5,992
Annual Bikeway Program countywide		\$1,537
Annual Sidewalk Program countywide		\$6,051
Bethesda Bikeway and Pedestrian Facilities Bethesda CBD	2008	\$2,592
Forest Glen Pedestrian Bridge west side of Georgia Avenue at Locust Grove Road west side of Georgia Avenue at I	Forest Glen Road 2006	\$1,655
Greentree Road Sidewalk Old Georgetown Road Fernwood Road	2009	\$1,788
Mathew Henson TrailAlderton LaneRock Creek Trail	2007	\$3,000
Pedestrian Safety Program CBDs		\$1,000
Silver Spring Green TrailSilver Spring Metro StationSligo Creek Hiker-Biker Trail	2007	\$4,435
US 29 Sidewalks University Blvd. New Hampshire Ave.	2006	\$1,700
Virginia		
10th St. Pedestrian FacilitiesWilson Blvd.Washington Blvd.	2007	\$500
Accotink Gateway Connector Trail King Arthur Drive Wakefield Park	2004	\$2,257
Arlington Boulevard Ped and Bike TrailFairfax County LinePershing Drive	2005	\$735
Bike/Ped TrailsVarious Locations - 2 Transit Stations &4 Regional Malls	2005	\$750
Columbia Pike Asphalt Multi-Use Path Holmes Run Powell Lane	2006	\$395
Cross County Trail Great Falls Park to Alban Road Lake Accotink Dam to Hunter Vil	llage Drive segm 2007	\$800
Duke Street Ped Bridge   Near Cameron Station	2006	\$400
Eisenhower Avenue Multi-Use Trail Trail extension	2006	\$754
Four Mile Run Trail Shirlington Road West Glebe Road	2007	\$935
Holmes Run Bike TrailI-395Ripley Street	2006	\$250

#### FY2006-2011 TIP Bicycle \_Pedestrian Projects

Facility	From	То	Complete In	Cost (\$1,000s)
I-95 Wilson Bridge	Jones Point Park Improvements		2010	\$13,404
Main Street	Town of Hamilton		2007	\$48
MEADE STREET	ARLINGTON BLVD BRIDGE	PEDESTRIAN IMPROVEMENTS	2006	\$125
Metrorail Station (King Street) Mezzanine	North Side of King Street	North End of Passenger Platform	2006	\$5,000
On-Road Bike Trails	Fairfax County-wide		2009	\$500
Pedestrian Improvements, Bus Stop Access Improvement	n Bike Projects	Fairfax County		\$1,200
Pedestrian Trail	over George Washington Memorial Parkway		2006	\$992
Pedestrian/Bicycle Plaza & Pathways	Town of Clifton	- Phase II	2007	\$56
Purcellville Multi-Purpose Trail	Main Street	Hirst Drive	2007	\$460
Rosslyn Circle Bike/Ped Grade Separation	@ Key Bridge		2006	\$1,250
Route 110 Bicycle Trail	North Pentagon Parking Lot	Memorial Drive	2007	\$219
Sidewalk Construction	City of Alexandria	City-wide	2007	\$938
Signal View Drive Multi-Use Trail	Within Signal Hill Park	Parallel to Signal View Drive	2006	\$18
Soapstone Drive Pedestrian Improvements	South Lakes Drive	Snakeden Branch	2006	\$767
Sugarland Run Trail	W&OD Trail	Fairfax County's Sugarland Run Trail	2005	\$898
Town of Herndon	Town Hall Square	Streetscaping & bike / ped improvements	2008	\$670
US 1 - Sidewalks, Trails, and Paths	VA 619 (Old Mill Road)	VA 1332 (Huntington Ave.)	2007	\$920
US 29 (Lee Highway) Fairfax Circle	@ US 50		2005	\$338
US 29 Shared-Use Path	I-66	Trinity Parkway	2006	\$583
US 50 (install fence)	VA 7	Patrick Henry Drive	2007	\$563
US 50 Pedestrian Bridge	Vicinity of the Seven Corners Shopping Center		2007	\$3,859
US 50 Pedestrian Improvements	Jaguar Trail	Patrick Henry Drive	2007	\$1,509
VA 120 (N. Glebe) Pedestrian Crossings	Ballston	Near the Mall, Hecht's, and Ballston Movie Theat	2007	\$1,250
VA 120 (South Glebe Road)	@ 27th Street	@ Ramp from I-395 to West Glebe Road	2006	\$63
VA 120 (South Glebe Road)	@ South Walter Reed Drive		2005	\$144
VA 234 (Dumfries Road) Multi-Purpose Trail	Lake Jackson Drive	VA 234 Business	2007	\$649
VA 234 Business - Sidewalks & Ramps	City of Manassas WCL (Godwin Drive)	VA 621 (Balls Ford Road)	2006	\$430
VA 234 Business - Signalized Crosswalks	City of Manassas WCL (Godwin Drive)	I-66	2008	\$481
VA 236 Pedestrian Safety Improvements	Beauregard Street	I-395	2007	\$372
VA 309 (Old Dominion Drive) (Pedestrian & Bicycle Impr	Fairfax County Line	US 29 (Lee Highway)	2007	\$1,483
VA 641 (Old Bridge Road)	VA 3000 (Prince William Parkway)	Cricket Lane	2008	\$406
VA 7 (Main Street)	Maple Avenue	Pickwick Drive	2009	\$535
VA 9	@ VA 704	in the Town of Hillsboro	2009	\$1,980

#### FY2006-2011 TIP Bicycle \_Pedestrian Projects

Facility	From	То	Complete In	Cost (\$1,000s)
W&OD Trail Crossing Improvements	Town of Herndon	Crestview Drive, Ferndale Avenue, Grace Street,	2008	\$150
Wolf Trap National Park Pedestrian Crossing	Wolf Trap National Park	VA 675 (Beulah Road)	2007	\$335
				\$122,051

#### Appendix E

Completed Bicycle and Pedestrian Projects From the Previous Bicycle Plan For the National Capital Region

Old #	State	Project	Limits/ Description	Jurisdiction	Funding Agency	Cost (thous)	Status/ Comments
1d	VA	W&OD Trail Bypass	Construct bypass from W&OD Trail near Bluemont Park	ARL ARL, NVRPA		125	Complete
3k	MD	Chain Bridge Trail	Widen sidewalks	ARL	ARL		Complete
30	VA	Columbia Pike/Pentagon Area Trails	1)Construct bikeway linking Columbia Pike and southern Arlington to Mt. Vernon 2) widen sidewalk along Washington Blvd between Sycamore Street and Glebe Road	ARL	DOD, ARL	550	
51	VA	Arlington Commercial Area Bicycle Parking	An estimated 250 racks to be installed	ARL	ARL	40	Complete
4c	VA	Alexandria/Fairfax Beltway Crossing	Bicinity of Eisenhower Avenue and Clermont Drive	ARL, FFX	ARL, FFX, VA	150	Complete
1a	DC	Mall Trail Improvements	Washington Mall	DC	DC, NPS, ARCH	500	Complete
3a	DC	Capital Crescent Trail	Georgetown to DC Line	DC	DC, NPS	11800	Complete
6i	DC/MD/VA	Metro Bike-On-Rail Improvements	System wide	DC, MD, VA	DC, WMATA		Complete
3am/ 2000	VA	Gateway-Accotink Connector	Trail from Daniel's Run in Fairfax City to Pickett Rd.in Fairfax City to Lake Accotink	FFX	FFX		Mostly Complete
3v	VA	Fairfax Parkway Bikeway	Last 6 miles of multi-use trail adjacent to Fairfax	FFX	FFX	1000	Partly Complete

6e	MD	Georgetown Branch Trail		MC	MD, MC		Complete
6m	MD	Bethesda TrolleyTrail	Construct missing portions of bicycle network to NIH and White Flint Metro Stations	MC	MC, MD, FHWA	1720	Partly Complete. Two bridges built
New 2000	MD	Gude Drive to Rock Creek Park Trail	Connect Gude Dr (part of the bicycle beltway) with the Rock Creek Trail near the former Montgomery County Landfill	MC	RVL/MNCP PC	150	
3f	VA	Sligo Creek Trail Extension	Link trail with NW Branch, Long Branch, and AnacostiaTrails	MC, PGC	MC, NPS, PGC	183	Complete
3g	VA	Northwest Branch Trail	Complete missing trail sections	PGC	NPS, PGC	200	Complete
3h	VA	Northeast Branch		PGC	PGC		Complete
6j	MD	Annapolis Rd Rte 450 Trail	Anne Arundel Co. Line to New Carrollton Metro Station	PGC	PGC, MD	1500	under construction
60	MD	Cherrywood Lane Metro Extension	Construct trail to connect Cherrywood Lane to Metro	PGC	PGC, MD	1000	Complete
7h	MD	Wash. Balto. Annap	Trail on WB&A line ROW from Glenarden to Anne Arundel Co.	PGC	PGC		Complete. Does not extend into Anne Arundel County
7j	MD	College Park Trolley Trail	Construct a trail along the abandoned Hyattsville-College Park-Laurel trolley right of way				Phase I complete, from Greenbelt to Paint Branch Parkway
2р	VA	Old Bridge Corridor Enhancement Project	Paved shoulders and/or separate path along Old Bridge Rd., Davis Ford Rd. and Prince William Pkwy.	PW	PW	375	complete

7v	VA	Old Bridge Road Trail	Construct trail to connect Rte 1 to Lake Ridge, Tacketts Mill to PW Parkway	PW	PWC, VA	366	
New 2000	VA	Prince William Parkway			PWC, VA	Funded/co 1995	omplete since

## Appendix F

#### **Cordon Counts**

Table 2-32002 Metro Core Cordon Count

Inbound Bicycles and Outbound Bicycles (outbound 1999 and 2002 only)											
1986 - 2002											
	6:30 - 9:30 A.M. and 3:30 - 6:30 P.M. (P.M. 1999 and 2002 only)										
Locations							1	999	2	002	
	1986	1987	1988	1990	1993	1996	A.M. inbound	P.M. Outbound	A.M. inbound	P.M. Outbound	
D.C. (Sectors 4-9) Va. (Sectors 1-3)	474 N/C	470 N/C	568 N/C	771 N/C	799 N/C	920 N/C	1,152 409	1,025 565	1,379 645	1,113 425	
Totals Crossing Cordon Line							1,561	1,590	2,024	1,538	
14th Street Bridge	131	78	107	139	157	211	197	197	300	238	
Memorial Bridge	49	124	146	219	120	232	220	104	104	143	
T. Roosevelt Bridge	14	13	2	7	25	59	81	62	18	89	
Key Bridge	123	92	104	106	64	86	124	93	103	92	
Totals Crossing Potomac	317	307	359	471	366	588	622	456	525	562	

Totals Crossing Poto N/C - not counted

Numbers in this table are not statistically significant when combined with other Metro Core Cordon Count data

FAC	TABLE 2-4 BICYCLE COUNT ON RADIAL TRANSPORTATION FACILITIES CROSSING THE CAPITAL BELTWAY								
	Inbound Bicycle Traffic 6:30 - 9:30 A.M.								
Year	Year 1995 1998 2001								
Count	220	263	214						

#### Appendix G

#### Origin Station Sorted by % Walk Mode of Access

			Table 2-11: Origin Station by Sorted by% Walk Mode of Access					
	Origin Station/Mode	Bicycle	Walk	All modes	% Bike	% Walk		
1	Federal Center	4	4550	4830	0.08%	94.2%		
2	Capitol South	14	6200	6609	0.21%	93.8%		
3	Archives-Navy Mem	10	7310	7817	0.13%	93.5%		
4	Judiciary SQ	0	9480	10201	0.00%	92.9%		
5	Farragut North	44	24214	26202	0.17%	92.4%		
6	McPherson SQ	18	15404	16700	0.11%	92.2%		
7	Federal Triangle	0	10591	11489	0.00%	92.2%		
8	Farragut West	24	22748	24714	0.10%	92.0%		
9	Court House	0	6373	6954	0.00%	91.6%		
10	Woodley Park Zoo	39	5555	6109	0.64%	90.9%		
11	Metro Center	61	24548	27548	0.22%	89.1%		
12	Smithsonian	0	11808	13409	0.00%	88.1%		
13	Waterfront	5	3340	3814	0.13%	87.6%		
14	Gallery Place	0	12260	14198	0.00%	86.4%		
15	Van Ness	8	5617	6557	0.12%	85.7%		
16	Foggy Bottom	13	18673	21857	0.06%	85.4%		
17	Dupont Circle	39	20433	24040	0.16%	85.0%		
18	Cleveland Park	8	4637	5474	0.15%	84.7%		
19	U Street	5	3167	3744	0.13%	84.6%		
20	Mt Vernon SQ	7	1658	1969	0.36%	84.2%		
21	Virginia Square	31	2441	2940	1.05%	83.0%		
22	Arlington Cemetery	0	1479	1797	0.00%	82.3%		
23	Navy Yard	0	2602	3173	0.00%	82.0%		
24	Eastern Market	46	4014	4912	0.94%	81.7%		
25	Columbia Heights	56	4352	5339	1.05%	81.5%		
26	Crystal City	25	10640	13168	0.19%	80.8%		
27	L'Enfant Plaza	0	18021	22716	0.00%	79.3%		
28	Shaw Howard U	40	2571	3326	1.20%	77.3%		
29	Clarendon	29	2163	2975	0.97%	72.7%		
30	Eisenhower Avenue	0	1051	1447	0.00%	72.6%		
31	Bethesda	12	6880	9635	0.12%	71.4%		
32	Rosslyn	13	10921	15527	0.08%	70.3%		
33	Ballston	33	7670	11355	0.29%	67.5%		
34	Tenley Town	111	4117	6119	1.81%	67.3%		
35	Friendship HTS	36	5679	8892	0.40%	63.9%		
36	Pentagon City	11	9060	14196	0.08%	63.8%		

	Origin Station/Mode	Bicycle	Walk	All modes	% Bike	% Walk
37	Medical Center	88	3027	4801	1.83%	63.0%
38	King Street	33	3609	5899	0.56%	61.2%
39	Union Station	53	17924	29439	0.18%	60.9%
40	Braddock Road	48	2039	3429	1.40%	59.5%
41	Stadium Armory	5	1816	3130	0.16%	58.0%
42	Georgia Avenue	0	2156	3950	0.00%	54.6%
43	Brookland CUA	10	3565	6616	0.15%	53.9%
44	Silver Spring	101	6453	12484	0.81%	51.7%
45	Benning Road	0	1488	2952	0.00%	50.4%
46	Potomac Avenue	0	1487	3035	0.00%	49.0%
47	Deanwood	0	836	1945	0.00%	43.0%
48	National Airport	0	2525	6016	0.00%	42.0%
49	Takoma Park	41	2649	6335	0.65%	41.8%
50	West Hyattsville	28	1385	3452	0.81%	40.1%
51	Congress Heights	7	767	1951	0.36%	39.3%
52	Forest Glen	23	759	2076	1.11%	36.6%
53	White Flint	8	1559	4293	0.19%	36.3%
54	East Falls Church	113	1521	4312	2.62%	35.3%
55	Minnesota Avenue	0	1042	2977	0.00%	35.0%
56	Twinbrook	57	1540	4409	1.29%	34.9%
57	Prince George's Plaza	15	1474	4321	0.35%	34.1%
58	Pentagon	0	4447	14720	0.00%	30.2%
59	Grosvenor	80	1131	3877	2.06%	29.2%
60	College Park	100	960	3333	3.00%	28.8%
61	Wheaton	27	1119	4759	0.57%	23.5%
62	Capitol Heights	0	502	2135	0.00%	23.5%
63	Rockville	44	952	4191	1.05%	22.7%
64	Rhode Island Avenue	19	1058	5224	0.36%	20.3%
65	Fort Totten	0	1146	6023	0.00%	19.0%
66	Naylor Road	22	490	2628	0.84%	18.6%
67	Dunn Loring	63	731	4468	1.41%	16.4%
68	Suitland	0	878	5461	0.00%	16.1%
69	Van Dorn Street	9	554	3919	0.23%	14.1%
70	Huntington	19	1041	7482	0.25%	13.9%
71	Cheverly	11	205	1530	0.72%	13.4%
72	Anacostia	0	847	7228	0.00%	11.7%
73	Vienna	136	1391	12293	1.11%	11.3%
74	Glenmont	14	508	5457	0.26%	9.3%
75	Southern Avenue	0	441	4984	0.00%	8.8%
76	New Carrollton	0	727	8698	0.00%	8.4%
77	West Falls Church	9	671	8177	0.11%	8.2%
78	Landover	0	220	3195	0.00%	6.9%
79	Franconia- Springfield	17	456	8591	0.20%	5.3%
80	Addison Road	0	284	6013	0.00%	4.7%

	Origin Station/Mode	Bicycle	Walk	All modes	% Bike	% Walk
81	Greenbelt	20	270	7015	0.29%	3.8%
82	Shady Grove	19	342	11101	0.17%	3.1%
83	Branch Avenue	10	48	5355	0.19%	0.9%
	Total	1991	393267	647431		
	% of Total Ridership	0.31	60.74	100		

#### Appendix H

Origin Station Sorted by % Bike Mode of Access

		Table 2-	12 Origin S	Station Sorted	bv %	
			Bike Mode of Access (From 2002			
		WMATA	Rail Pass	enger Survey)	)	
	Origin Station/Mode	Bicycle	Walk	All modes	% Bike	% Walk
1	College Park	100	960	3333	3.00%	28.8%
2	East Falls Church	113	1521	4312	2.62%	35.3%
3	Grosvenor	80	1131	3877	2.06%	29.2%
4	Medical Center	88	3027	4801	1.83%	63.0%
5	Tenley Town	111	4117	6119	1.81%	67.3%
6	Dunn Loring	63	731	4468	1.41%	16.4%
7	Braddock Road	48	2039	3429	1.40%	59.5%
8	Twinbrook	57	1540	4409	1.29%	34.9%
9	Shaw Howard U	40	2571	3326	1.20%	77.3%
10	Forest Glen	23	759	2076	1.11%	36.6%
11	Vienna	136	1391	12293	1.11%	11.3%
12	Virginia Square	31	2441	2940	1.05%	83.0%
13	Rockville	44	952	4191	1.05%	22.7%
14	Columbia Heights	56	4352	5339	1.05%	81.5%
15	Clarendon	29	2163	2975	0.97%	72.7%
16	Eastern Market	46	4014	4912	0.94%	81.7%
17	Naylor Road	22	490	2628	0.84%	18.6%
18	West Hyattsville	28	1385	3452	0.81%	40.1%
19	Silver Spring	101	6453	12484	0.81%	51.7%
20	Cheverly	11	205	1530	0.72%	13.4%
21	Takoma Park	41	2649	6335	0.65%	41.8%
22	Woodley Park Zoo	39	5555	6109	0.64%	90.9%
23	Wheaton	27	1119	4759	0.57%	23.5%
24	King Street	33	3609	5899	0.56%	61.2%
25	Friendship HTS	36	5679	8892	0.40%	63.9%
26	Rhode Island Avenue	19	1058	5224	0.36%	20.3%
27	Congress Heights	7	767	1951	0.36%	39.3%
28	Mt Vernon SQ	7	1658	1969	0.36%	84.2%
29	Prince George's Plaza	15	1474	4321	0.35%	34.1%
30	Ballston	33	7670	11355	0.29%	67.5%
31	Greenbelt	20	270	7015	0.29%	3.8%
32	Glenmont	14	508	5457	0.26%	9.3%
33	Huntington	19	1041	7482	0.25%	13.9%

	Origin Station/Mode	Bicycle	Walk	All modes	% Bike	% Walk
34	Van Dorn Street	9	554	3919	0.23%	14.1%
35	Metro Center	61	24548	27548	0.22%	89.1%
36	Capitol South	14	6200	6609	0.21%	93.8%
37	Franconia-	17	456	8591	0.20%	5.3%
	Springfield					
38	Crystal City	25	10640	13168	0.19%	80.8%
39	Branch Avenue	10	48	5355	0.19%	0.9%
40	White Flint	8	1559	4293	0.19%	36.3%
41	Union Station	53	17924	29439	0.18%	60.9%
42	Shady Grove	19	342	11101	0.17%	3.1%
43	Farragut North	44	24214	26202	0.17%	92.4%
44	Dupont Circle	39	20433	24040	0.16%	85.0%
45	Stadium Armory	5	1816	3130	0.16%	58.0%
46	Brookland CUA	10	3565	6616	0.15%	53.9%
47	Cleveland Park	8	4637	5474	0.15%	84.7%
48	U Street	5	3167	3744	0.13%	84.6%
49	Waterfront	5	3340	3814	0.13%	87.6%
50	Archives-Navy Mem	10	7310	7817	0.13%	93.5%
51	Bethesda	12	6880	9635	0.12%	71.4%
52	Van Ness	8	5617	6557	0.12%	85.7%
53	West Falls Church	9	671	8177	0.11%	8.2%
54	McPherson SQ	18	15404	16700	0.11%	92.2%
55	Farragut West	24	22748	24714	0.10%	92.0%
56	Rosslyn	13	10921	15527	0.08%	70.3%
57	Federal Center	4	4550	4830	0.08%	94.2%
58	Pentagon City	11	9060	14196	0.08%	63.8%
59	Foggy Bottom	13	18673	21857	0.06%	85.4%
60	Judiciary SQ	0	9480	10201	0.00%	92.9%
61	Federal Triangle	0	10591	11489	0.00%	92.2%
62	Court House	0	6373	6954	0.00%	91.6%
63	Smithsonian	0	11808	13409	0.00%	88.1%
64	Gallery Place	0	12260	14198	0.00%	86.4%
65	Arlington Cemetery	0	1479	1797	0.00%	82.3%
66	Navy Yard	0	2602	3173	0.00%	82.0%
67	L'Enfant Plaza	0	18021	22716	0.00%	79.3%
68	Eisenhower Avenue	0	1051	1447	0.00%	72.6%
69	Georgia Avenue	0	2156	3950	0.00%	54.6%
70	Benning Road	0	1488	2952	0.00%	50.4%
71	Potomac Avenue	0	1487	3035	0.00%	49.0%
72	Deanwood	0	836	1945	0.00%	43.0%
73	National Airport	0	2525	6016	0.00%	42.0%
74	Minnesota Avenue	0	1042	2977	0.00%	35.0%
75	Pentagon	0	4447	14720	0.00%	30.2%
76	Capitol Heights	0	502	2135	0.00%	23.5%
77	Fort Totten	0	1146	6023	0.00%	19.0%
78	Suitland	0	878	5461	0.00%	16.1%

	Origin Station/Mode	Bicycle	Walk	All modes	% Bike	% Walk
79	Anacostia	0	847	7228	0.00%	11.7%
80	Southern Avenue	0	441	4984	0.00%	8.8%
81	New Carrollton	0	727	8698	0.00%	8.4%
82	Landover	0	220	3195	0.00%	6.9%
83	Addison Road	0	284	6013	0.00%	4.7%
	Total	1991	393267	647431		
	% of Total Ridership	0.31	60.74	100		

## Appendix I

#### Bicycle Lockers and Racks at Metro Stations

BICYCLE LOC	BICYCLE LOCKERS AND RACKS AT OR NEAR METRO STATIONS				
STATION	JURISDICTION	TOTAL LOCKERS	USED LOCKERS	PERCENT	TOTAL RACKS
Addison Road-Seat					18
Pleasant	Prince George's				
Anacostia	DC	8	4	50%	13
Archives-Navy Mem'l- Penn Quarter	DC				
Arlington Cemetery	Arlington County				
Ballston-MU	Arlington County				54
Benning Road	DC				4
Bethesda	Montgomery	44	43	98%	48
Braddock Road	Alexandria	12	11	92%	46
Branch Ave	Prince George's	24	5	21%	10
Brookland-CUA	DC	16	9	56%	10
Capitol Heights	Prince George's				6
Capitol South	DC				
Cheverly	Prince George's				34
Clarendon	Arlington County	6	5	83%	12
Cleveland Park	DC	12	12	100%	16
College Park-U of Md	Prince George's	40	17	43%	89
Columbia Heights	DC	12	4	33%	4
Congress Heights	Prince George's	12	2	17%	10
Court House	Arlington County				20
Crystal City	Arlington County				10
Deanwood	DC				6
Dunn Loring-Merrifield	Fairfax County	34	22	65%	40
Dupont Circle	DC	12	7	58%	16
East Falls Church	Arlington County	36	23	64%	88
Eastern Market	DC	20	17	85%	
Eisenhower Ave	Alexandria	6	4	67%	10
Farragut North	DC				8
Farragut West	DC				4

STATION		TOTAL LOCKERS	USED	DEDCENT	TOTAL RACKS
	JURISDICTION		LOCKERS	PERCENT	
Federal Center SW	DC				2
Federal Triangle	DC				20
Foggy Bottom-GWU	DC	20	11	55%	10
Forest Glen	Montgomery	16	13	81%	42
Fort Totten	DC	6	1	17%	10
Franconia-Springfield	Fairfax County	20	16	80%	37
Friendship Heights	DC	22	21	95%	44
Gallery Pl-Chinatown	DC				
Georgia Ave-Petworth	DC	12	1	8%	
Glenmont	Montgomery	48	17	35%	36
Greenbelt	Prince George's	52	38	73%	60
Grosvenor-Strathmore	Montgomery	30	22	73%	40
Huntington	Fairfax County	12	7	58%	34
Judiciary Sq	DC				13
King Street	Alexandria	20	10	50%	34
L'Enfant Plaza	DC				
Landover	Prince George's	8	1	13%	26
Largo Town Center	Prince George's	48	4	8%	9
McPherson Sq	DC				1
Medical Center	Montgomery	38	34	89%	88
Metro Center	DC				4
Minnesota Ave	DC	4	0	0%	8
Morgan Boulevard	Prince George's	40	0	0%	9
Mt Vernon Sq/7th St- Convention Center	DC				6
Navy Yard	DC				12
Naylor Road	Prince George's	4	0	0%	10
New Carrollton	Prince George's	16	9	56%	18
New York Ave-Florida Ave-Gallaudet U	DC	28	3	11%	10
Pentagon	Arlington County				6
Pentagon City	Arlington County	22	13	59%	8
Potomac Ave	DC				21
Prince George's Plaza	Prince George's	24	4	17%	40
Rhode Island Ave- Brentwood	DC				14

STATION	JURISDICTION	TOTAL LOCKERS	USED LOCKERS	PERCENT	TOTAL RACKS
Rockville	Montgomery	40	30	75%	69
Ronald Reagan Washington National					18
Airport	Arlington County				
Rosslyn	Arlington County				20
Shady Grove	Montgomery	60	34	57%	32
Shaw-Howard U	DC				
Silver Spring	Montgomery	30	26	87%	26
Smithsonian	DC				2
Southern Ave	Prince George's	40	0	0%	14
Stadium-Armory	DC				
Suitland	Prince George's	20	0	0%	10
Takoma	DC	60	48	80%	42
Tenleytown-AU	DC	20	10	50%	20
Twinbrook	Montgomery	26	5	19%	68
U St/African-Amer					
Civil War					
Memorial/Cardozo	DC				
Union Station	DC				23
Van Dorn Street	Alexandria	6	1	17%	20
Van Ness-UDC	DC	8	3	38%	9
Vienna/Fairfax-GMU	Fairfax County	56	46	82%	54
Virginia Sq-GMU	Arlington County	32	25	78%	12
Waterfront-SEU	DC				
West Falls Church-		22			40
VT/UVA	Fairfax County		16	73%	
West Hyattsville	Prince George's	36	21	58%	50
Wheaton	Montgomery	20	13	65%	37
White Flint	Montgomery	20	11	55%	32
Woodley Park-					8
Zoo/Adams Morgan	DC				
		1280			1858

#### NOTES:

Blank spaces indicate a value of zero.

All lockers listed are owned by the Washington Metropolitan Area Transit Authority (WMATA). Locker usage data is current as of May 23, 2006, and are subject to change.

Totals include racks not owned by WMATA; such racks are located within 200 feet of a station entrance.

Locker and rack totals are current as of May 22, 2006, and are subject to change.

## Appendix J

Links and Resources (to be added)

#### Appendix K Glossary of Terms

- BIKE-ON-RAIL PERMIT Permit issued by the Washington Metropolitan Area Transit Authority permitting transportation of bicycles on Metrorail trains during night and weekend service periods. (no longer required)
- BICYCLE LANE (BIKE LANE) A portion of a roadway which has been designated by striping, signing and pavement markings for the preferential or exclusive use of bicyclists. Consists of a 4'-6' lane in each direction, with bicycle traffic moving in the same direction as motorized traffic.
- BICYCLE PATH (BIKE PATH) A bikeway physically separated from motorized vehicular traffic by an open space or barrier and either within the highway right of way or within an independent right of way.
- BICYCLE PARKING An area dedicated and designed specifically for storing and locking a bicycle. Includes bicycle racks and bicycle lockers.
- BICYCLE ROUTE (BIKE ROUTE) A segment of a system of bikeways designated by the jurisdiction with appropriate directional and informational markers, with or without specific bicycle route numbers.
- BIKEWAY Any road, path, or way which in some manner is specifically designated as being open to bicycle travel, regardless or whether such facilities are designated for the exclusive use of bicycles or are to be shared with other transportation modes.
- CLASS I, II or III BIKEWAY Terms sometimes used to describe different types of bicycle facilities. Class I is a shared-use path, Class II a bicycle lane, and Class III a shared roadway. However, Since there is some disagreement on the exact meaning of these terms, the AASHTO terms (listed above) should be used.

GREENWAY	A linear park or recreation facility of limited width, located along the length of an existing or former public utility or railroad right-of-way, or along a stream bed.
HIKER-BIKER TRAIL	A paved path designed for use by both pedestrians and bicyclists, which is completely separated from vehicular traffic.
METROPOLITAN STATISTICAL AREA	A core area containing a substantial population nucleus, together with adjacent communities having a high degree of social and economic integration with that core. Metropolitan statistical areas comprise one or more entire counties. They are used by the United States Census for the purpose of tabulating, enumerating and publishing data.
RAILS-TO-TRAILS CONSERVANCY	A national membership organization that works to facilitate the acquisition of abandoned railroad lines for use in creating bicycle and pedestrian trails and linear parks.
RAIL-TRAIL	A Shared-Use Path, either paved or unpaved, built within the right-of-way of an existing or former railroad.
REGIONAL ACTIVITY CE	NTER A set of locations within the National Capital Region Transportation Planning Board planning area identified by the Council of Government's Planning Director's Technical Advisory Committee as employment centers of regional significance. Five types of Regional Activity Center have been designated, with different employment and residential density criteria for each.
REGIONAL ACTIVITY CL	USTER An employment center adjacent to a Regional Activity Center, with a lower density than a Regional Acitivity Center
SHARED ROADWAY	A roadway which is open to both bicycle and motor vehicle travel. This may be an existing roadway, street with wide curb lanes, or road with paved shoulders.
SHARED-USE PATH	A bikeway, at least 8' in width, physically separated from motorized vehicular traffic by an open space or barrier and either within the highway right-of-way or within an independent right-of-way. Shared-Use Paths may also be used by pedestrians, skaters, wheelchair users, joggers, and other non-motorized users.

SIDE-PATH	A shared-used path built within the right-of-way of a non limited-access highway.
SIDEWALK	The portion of a street or highway right-of-way, at least 4' in width, designed for preferential or exclusive use by pedestrians.
SIGNED SHARED ROADWAY	A shared roadway that has been designated as a preferred route for bicycle use using warning, directional, and informational signage.
TRAVELED WAY	The portion of a roadway for the movement of vehicles, exclusive of shoulders.
UNIFORM VEHICLE CODI	E The standards for traffic regulations recommended for adoption by state and local jurisdictions, as prepared by the National Committee on Uniform Traffic Laws and Ordinances.
WASHINGTON AREA BICYCLIST ASSOCIATION	A regional membership organization devoted to improving bicycling opportunities and promoting bicycle usage in the metropolitan Washington area.

## Appendix L

## Glossary of Acronyms

AASHTO	American Association of Highway Transportation Officials
ADA	Americans with Disabilities Act
AFA	Access for All Advisory Committee
CLRP	Financially Constrained Long-Range Transportation Plan
CMAQ	Congestion Mitigation and Air Quality Improvement Program
COG	Metropolitan Washington Council of Governments
DDOT	District of Columbia Department of Transportation
FHWA	Federal Highway Administration
FTA	Federal Transit Administration
ISTEA	Intermodal Surface Transportation Efficiency Act of 1991
MDOT	Maryland Department of Transportation
MPO	Metropolitan Planning Organization
MSA	Metropolitan Statistical Area
MTA	Maryland Transit Administration
MUTCD	Manual on Uniform Traffic Control Devices
NCPC	National Capital Planning Commission
NVTC	Northern Virginia Transportation Commission
SAFETEA-LU	Safe, Accountable, Flexible, Efficient Transportation Equity Act:
	Legacy for Users
SHA	Maryland State Highway Administration
SOV	Single-Occupant Vehicle
SRTS	Safe Routes to School
TCSP	Transportation and Community and System Preservation Pilot
	Program
TEA-21	Transportation Equity Act for the 21st Century
TIP	Transportation Improvement Program
TPB	National Capital Region Transportation Planning Board
US DOT	U.S. Department of Transportation
VDOT	Virginia Department of Transportation
VMT	Vehicle-Miles Traveled
WABA	Washington Area Bicyclist Association
WMATA	Washington Metropolitan Area Transit Authority

#### Appendix M Priorities 2000 Greenways

# Table 1-1: Map from Priorities 2000:Metropolitan Washington Greenways Report

Regional Priority Projects	Local Priority Projects	Selected Existing Greenways
1. Accotink Greenway	9. Ballenger Creek Greenway	A. W&OD Trail
2. Anacostia Greenway	10 Broad Run/Rocky Branch Greenway	B. Suitland Parkway Trail
3. Fort Circle Greenway	11. Collington Branch Greenway	C. Rock Creek Parkway
4. Metropolitan Branch Trail	12. Cross County Trail	D. Mount Vernon Trail
5. Monocacy River Greenway	13. DC Trolley Trail/Rhode Island Avenue Trail	E. Catoctin- Gambrill Greenway
6. Northwest Branch Greenway	14. Eisenhower Avenue Greenway	F. Capital Crescent Trail
7. Potomac Heritage National Scenic Trail	15. Henson Creek Greenway	G. C&O Canal
<ul><li>8. Washington, Baltimore</li><li>&amp; Annapolis Trail</li></ul>	16. Patuxtent Regional Greenway	H. Appalachian Trail

Regional Priority Projects	Local Priority Projects	Selected Existing Greenways
	17. Seneca Greenway	I. Northwest Branch Trail
	18. Suitland Parkway Trail	
	19. Watts Branch Greenway	
	20. W&OD Connection to White's Ferry	

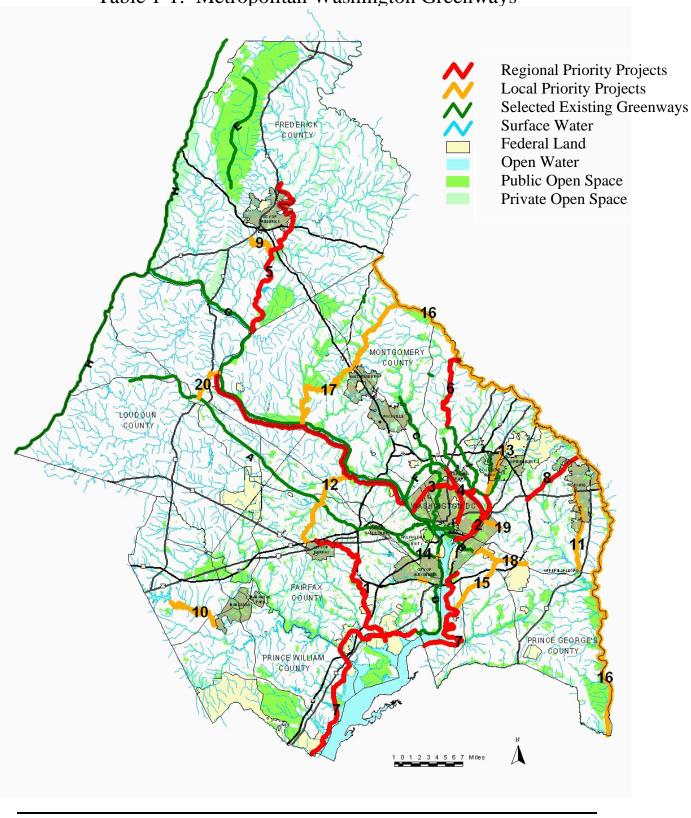


Table 1-1: Metropolitan Washington Greenways

## Appendix N

Bibliography (to be added later)