



A Guide to Bicycle and Transit Connections in Northern Virginia

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Executive Summary

Bicycles are a small but growing mode of transportation in the Washington, DC metropolitan region. Overall, bicycle mode share for commuting trips in the MWCOG region grew from 0.7% in 1994 to 1.0% in 2007. Bicycle mode shares in the central jurisdictions are significantly higher than the regional average, with 3.3% in DC, 2.7% in Alexandria, and 1.4% in Arlington. A 2008 Census Bureau study found the bicycle commuting mode share in the region to be two percent, which is twice the average for the 70 largest U.S. cities and the sixth highest.

Public transit usage can be increased by providing good bicycle facilities at transit stations and on transit vehicles. The encouragement of bicycling can increase transit trips by expanding the passenger catchment area around transit stations. Similarly, good bicycling facilities on transit vehicles can increase transit trips by both expanding the passenger catchment area around transit routes, and by expanding the passenger destination area at the end of the transit trip. A secondary benefit for transit providers is that the cost of bicycle parking is a tiny fraction of the cost of providing automobile parking.

Almost all of the transit buses operated in the region have front-mounted bike racks and both Metrorail and the Virginia Railway Express allow bikes on-board (according to specific rules).

While complete data are not available on the extent to which transit users rely on bicycles for connections, WMATA does report that it carries about 650 bikes on its buses' front-mounted racks each day (about 0.2% of bus passenger trips) and that about 1,530 (0.64%) of its customers use bikes to access Metrorail.

The region has at least 1,767 bike rack spaces and another 1,256 bike locker spaces at transit stations, of which 620 rack spaces and 320 locker spaces are located in Northern Virginia. An additional 118 bike rack spaces and 104 bike locker spaces are located in VDOT's Northern Virginia park-and-ride lots, many of which are served by transit.

Encouraging bicycling is good for other reasons as well. An increase in bicycling will decrease fuel use, CO₂ emissions, and traffic congestion, while improving the fitness and health of cyclists. These benefits are valued in the billions of dollars annually in the United States.

There are seven categories of enhancements that promote bicycle-transit connections: bicycle parking at rail stations and bus stops; multi-functional “bike stations”; bike racks/carriers on buses; bikes on board rail vehicles; safe cycling routes to transit stations; bike sharing programs; and information and maps for bicyclists about the bicycling-transit connection.

Ten innovative ideas for bicycle-transit integration from other metropolitan areas are presented. They include: high-capacity bike parking shelters; low-cost bicycle parking shelters; automated bicycle parking shelters; bicycle carriers on vanpools; bus bike carriers with capacity for three bicycles; bicycles on bus data collection; Bicycle to Work Week; bicycles on board commuter trains; bicycles on board light rail vehicles; and cash rewards for bicycle commuters.

In light of the energy, air quality, climate change and congestion benefits, along with other benefits outlined in this study, NVTC staff presents eight policy recommendations and items for further study. These items are provided for consideration by local elected officials and by the public in Northern Virginia. The items include: monitoring bike/transit use; monitoring rack usage on buses; measuring the effect of covered bike parking for WMATA passengers; evaluating the effectiveness of more bike racks, shelters and lockers at transit stations; transforming *Bike to Work Day* to *Bike to Work Week*; advocating for bicycle accommodations on new LRT and BRT corridors; providing support for VDOT’s policy for integrating bicycle and pedestrian accommodations; and looking for opportunities to demonstrate new bicycle/transit technologies.

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Washington, DC
Arlington
TPB Region

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Arlington County	Fairfax County
ART Bus	DASH Bus
Loudoun County	WMATA

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High-Capacity Bike Parking Shelter – Chicago Transit Authority
Bicycle Parking Shelters – Switzerland
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Bicycles on Vanpools – Regional Transportation District (RTD)/Denver Regional Council of Governments
Bus Bike Racks with Capacity for Three Bicycles – Pinellas Suncoast Transit Authority (PSTA)
Bicycles on Bus Monitoring
Bicycle to Work Week – Victoria, British Columbia
Bicycles on Board Commuter Trains – Caltrain, California Bay Area
Bicycles on Board Light Rail Trains – Metro Transit Hiawatha LRT, Minneapolis
B2Benefits - Metro Transit, Minneapolis

XVI. Policy Recommendations and Items for Further Study **page 34**

1. Monitor Bike/Transit Usage
2. Monitor Bike Rack Usage on Buses
3. Measure Effect of Covered Bike Parking on WMATA Passengers
4. Increase Bike Shelters or Bike Lockers at VRE Stations and Other Transit Systems
5. Transform *Bike to Work Day* to *Bike to Work Week*
6. Provide Bicycle Accommodations on New LRT and BRT Corridors
7. Support VDOT's Policy of Integrating Bicycle and Pedestrian Accommodations and Encourage On-Going Regional Plans and Studies
8. Look for Opportunities to Demonstrate New Bicycle/Transit Technologies

APPENDIX – Other Bicycle Planning and Advocacy Bodies **page 38**

Arlington Bicycle Advisory Committee
Alexandria Pedestrian & Bicycle Citizens' Group
BikeWalk Alexandria
Fairfax Advocates for Better Bicycling
Fairfax County Bicycle Program
Fairfax County Trails and Sidewalks Committee
Transportation Planning Board (TPB), Bicycle and Pedestrian Subcommittee
Virginia Bicycling Federation
Washington Area Bicyclist Association (WABA)

I . Introduction

Transit agencies have recognized that promoting bicycle/transit connections can increase transit ridership by expanding the transit passenger catchment area (a geographic area from which passengers are most likely to originate). Pedestrian access to and from transit stops is normally limited to a 15-minute walk, or approximately ½ mile. An average cyclist can travel approximately two miles in 15 minutes, thus expanding the catchment area by a factor of 16.¹ A two mile bicycle trip is on the lower bound of comfortable and easy bicycle trips. Many bicyclists can easily cycle three miles and increase the catchment area by a factor of 36 over the walk catchment area.

Bicycling can benefit transit agencies in another way, as well. The provision of bicycle parking racks, lockers, or shelters costs a fraction of automobile parking facilities. Ten bicycles can be accommodated in the same area as one automobile parking space.

Bicycling benefits taxpayers, too. A bicyclist can be thought of as a person who could have driven a car, but chose to cycle instead. Increased use of bicycles can lead to less traffic, less air pollution, and greater health and fitness. Studies suggest that developments that incorporate bicycling and pedestrian facilities in proximity with public transportation can reduce fiscal outlays of local municipalities towards roads and other infrastructure expansion by 25%.²

Washington, D.C. enjoys the sixth largest percentage of bicycle commuters in the U.S. (as of 2008). A Census Bureau survey found the number bicycle commuters doubled compared to 2000, exceeding two percent of all commuters. In the 70 largest U.S. cities over the same period, bicycle commuting grew by 48 percent, for a mode share of about one percent. Within Washington, D.C., the city has 45 miles of bike lanes compared to 1,200 miles of streets.³

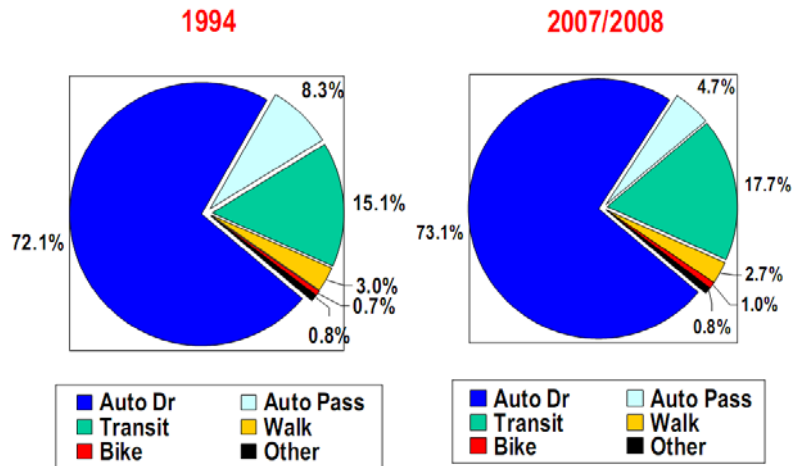
Overall, bicycling is a small and relatively stable travel mode in the Washington, DC region. The 2007/08 MWCOG Household Travel Survey revealed that bicycle commute trips in the MWCOG region increased from 0.7% in 1994 to 1.0% in 2008, see Figure 1. Within certain areas and jurisdictions, however, bicycle use has grown significantly.

¹ Area of circle = πR^2 . $(3.14 \times 0.5^2) = 0.785$ square miles, $(3.14 \times 2.0^2) = 12.6$ square miles.

² TCIP Report 102: Transit-Oriented Development in the United States: Experiences, Challenges, and Prospects, Transportation Research Board, 2004.

³ Washington Post, March 11, 2010 at B-1.

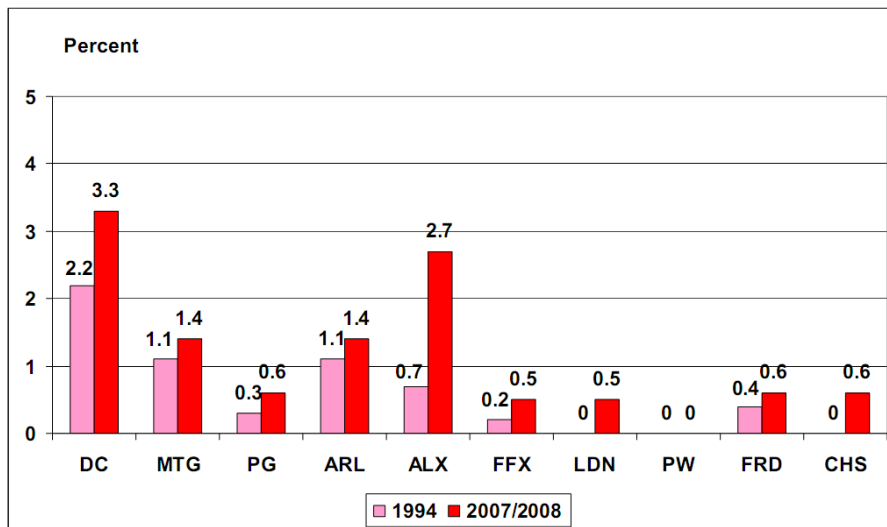
Figure 1.
All Commute Trips by Mode, MWCOG Region



Source: 1994 and 2007/08 Household Travel Survey, MWCOG.

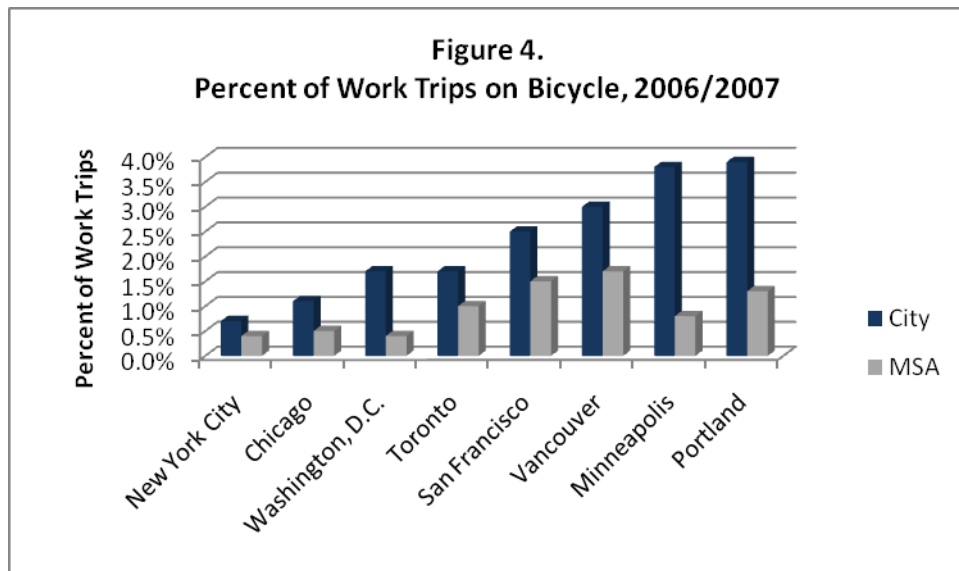
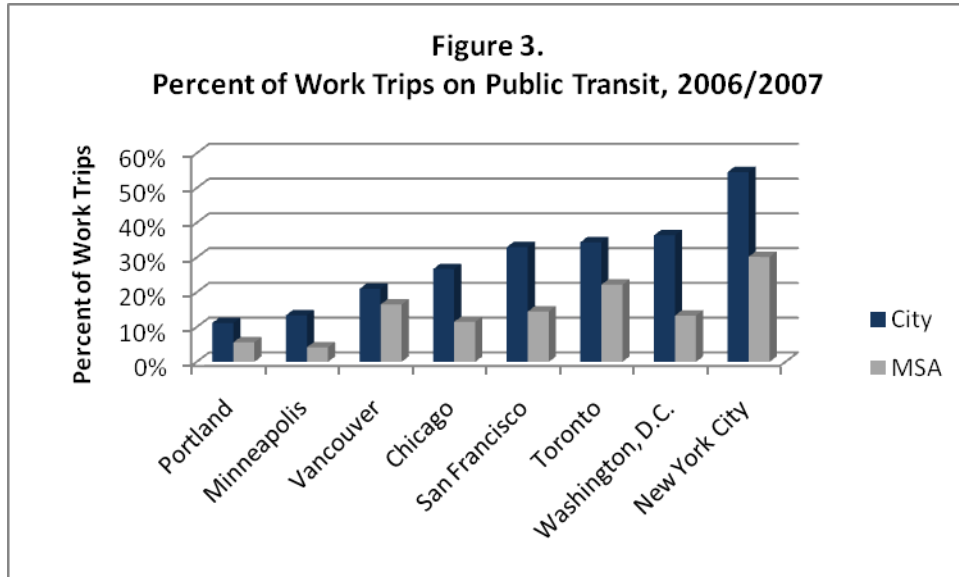
Bicycle commuting is much more prevalent in the central jurisdictions, with a 1.4% to 3.3% mode share, see Figure 2. The City of Alexandria experienced the greatest increase in bike mode share between 1994 and 2007/08 according to the MWCOG Household Travel Survey, reaching 2.7% compared to 0.7%.

Figure 2.
Bike Commute Share by Jurisdiction of Residence



Source: 1994 and 2007/08 Household Travel Survey, MWCOG.

Figures 3 and 4 show the Washington, D.C. Metropolitan Statistical Area (MSA) in relation to its peers in both the U.S. and Canada. The Washington, D.C. MSA does well with regard to percent of work trips taken on public transit, but does relatively poorly in regard to percent of work trips by bicycle. Several of the selected peer cities even experience much longer and harsher winters than does Washington, D.C., which affect cyclists especially strongly, yet these cities still enjoy higher shares of bicycle commuting, by a factor of two to four, than the Washington, D.C. MSA.⁴



⁴ *Integrating Bicycling and Public Transport in North America*, John Pucher and Ralph Buehler, *Journal of Public Transportation*, Volume 12, No. 3, 2009.

Source: *Integrating Bicycling and Public Transport in North America*, John Pucher and Ralph Buehler, Journal of Public Transportation, Volume 12, No. 3, 2009.

In order to attract more bicyclists as transit passengers, transit agencies and their financial partners have seven main categories of enhancements to promote bicycle-transit integration:

1/ Bicycle parking facilities at rail stations and bus stops should be secure, and ideally be protected from precipitation.⁵

2/ Multi-functional bike stations providing not only parking , but also a range of other services such as bike rentals, repairs, parts and accessories, bike washing, showers and lockers, and bike route advice.⁵

3/ Bike carriers on buses, usually exterior.⁵

4/ Bikes on board rail vehicles, usually interior with racks or hooks to hang bikes.⁵

5/ Safe cycling routes to and from transit stations/stops.⁵

6/ Bike sharing programs at transit stations to expand passenger destinations at the end of their transit trip.

7/ Information on: locating safe routes to and from transit stations/stops; rules and regulations on bringing bikes on board transit vehicles; and locating bicycle parking facilities at/near transit stations and stops.

As described in this report, Northern Virginia jurisdictions and transit systems are cooperating to plan and implement many such improvements. While funding in the current environment is a serious hurdle, the pay-off is significant.

⁵ Ibid.

II. Proposed FTA Policy on Pedestrian and Bicycling Catchment Area around Transit Stops and Stations

The Federal Transit Administration (FTA) has issued a proposed rule change⁶ that would create a radius around a public transit stop or station within which FTA will consider pedestrian and bicycle improvements to have a *de facto* functional relationship to public transportation. This could increase the likelihood that federal funds will be used for bicycle and pedestrian improvements. FTA is seeking comments on how large the catchment areas should be for pedestrians and bicyclists. Because FTA issued no previous guidance on whether a bicycle enhancement project had a *functional* relationship to public transportation, public transit agencies were hesitant to seek federal funds to initiate bicycle enhancement projects. The FTA proposed bicycle catchment radius is three miles from a public transit stop or station. Previous FTA guidance on the size of the pedestrian catchment area was approximately 1,500 feet or ¼ mile. Much research and experience has shown that pedestrians routinely walk well over this radius. Included in this proposal is a recommendation to increase the pedestrian radius to ½ mile.

Nearly all FTA grant programs may be used to fund the design, construction, and maintenance of pedestrian and bicycle projects that enhance or are related to public transportation facilities. For example, one percent of the FTA Urbanized Area Formula program funds are set aside for transit enhancements, which are defined to include pedestrian access and walkways, bicycle access, bicycle storage facilities and installing equipment for transporting bicycles on public transportation vehicles. As an added incentive, the federal share of transit enhancement grants covers 90% of the cost of the project. If the project involves providing enhanced bicycle access to transit, the federal share increases to 95%. The typical FTA share of transit projects in its various programs is no more than 80%.

⁶ Federal Register, Vol. 74, No. 218, Friday, Nov. 13, 2009. <http://edocket.access.gpo.gov/2009/pdf/E9-27240.pdf>

III. Benefits of Bicycling

Increases in bicycling will create these public benefits: fuel savings, congestion relief, CO₂ reduction, and improved health. The Rails-to-Trails Conservancy's *Active Transportation for America: the Case for Increased Federal Investment in Bicycling and Walking*, calculated the public monetary benefits of bicycling and walking:⁷

Underlying Assumptions for Monetary Value of Benefits

Factor	Status Quo	Modest Scenario	Substantial Scenario
Price of gasoline	\$3.50	\$3.00	\$4.00
Price of CO ₂ emission avoided (\$/ton of CO ₂)	\$0	\$10	\$30
Health care savings of one minute increase of daily average physical activity of entire population (\$millions/minute)	unknown	\$400	\$6,600
Percent of those bicycling or walking who do not already meet activity requirements (e.g., what percent of increased activity comes from the previously sedentary population)	0%	20%	50%

Monetary Value of Benefits from Bicycling and Walking (\$ millions/year)

Factor	Status Quo	Modest Scenario	Substantial Scenario
Fuel savings for shifting short car trips to bicycling or walking, excluding secondary savings from congestion relief	\$3,478	\$6,321	\$17,188
Fuel savings from bicycling or walking and public transit synergy	Unknown	\$279	\$5,586
Fuel savings from trip length reduction through induced mixed use	Unknown	\$1,697	\$5,481
Fuel savings from congestion relief	\$688	\$1,417	\$2,726
CO ₂ reduction from miles driven avoided, including congestion relief and trip length reduction through induced mixed use	Unknown	\$333	\$2,726
Health cost reduction from increase in physical activity among those who do not currently meet recommended levels	Unknown	\$420	\$28,127
Totals	\$4,146	\$10,378	\$65,876

⁷ *Active Transportation for America: the Case for Increased Federal Investment in Bicycling and Walking*, Gotschi, Thomas and Mills, Kevin. Published by the Rails-to-Trails Conservancy, Washington, D.C. 2009. Available at http://www.railstotrails.org/resources/documents/whatwedo/atfa/ATFA_20081020.pdf

IV. Bicycles on Transit

Most transit agencies in the United States and Canada allow bicycles on transit. Most of the largest bus transit agencies provide front-mounted bicycle racks that accommodate two bicycles. Some of the smaller bus agencies allow bicycles inside the passenger compartment, but this is becoming rare due to safety concerns.

Bicycles on Buses in Northern Virginia

All Metrobus, ART, Fairfax Connector, and CUE buses are equipped with front-mounted bicycle racks that hold up to two bicycles. Loudoun County Transit commuter coaches allow bicycles to be carried in the luggage bays with special permits. This is due to security concerns. PRTC local buses are all equipped with bike racks, but none of their commuter coaches allow bicycles on-board.

DASH is searching for a funding source to finance the purchase of front-mounted bicycle racks. Front-mounted bicycle racks cost approximately \$500 each, but DASH is basing its grant funding request on Fairfax County's procurement of bicycle racks. Fairfax County's bus operations contractor required the county to include an "idiot light" mounted on the bus dashboard to indicate if the bike rack was not in the upright, locked position. This extra item increased the cost per bus from under \$1,000 to \$4,000.

A recent WMATA survey disclosed that about 650 bikes are carried by Metrobus each day, compared to average daily Metrobus passenger trips system-wide of about 371,000. Northern Virginia's other transit providers do not collect data on the extent of bicycles on board.

Note: Folding (collapsible) bicycles are allowed inside buses when folded and encased.

Bicycles on Rail in Northern Virginia

Bicycles are permitted on Metrorail (limited to two bicycles per car) weekdays except 7-10 a.m. and 4-7 p.m. Bicycles are permitted all day Saturday and Sunday as well as most holidays (limited to four bicycles per car). Bicycles are not permitted on Metrorail on July 4th or other special events or holidays when large crowds use the system. VRE allows bicycles on only the last three daily northbound trains, all midday trains, and the last three southbound trains of the day. VRE is limiting bikes to two per train car and says they must be tethered to train seats. VRE says that each bicycle removes two passenger seats from use. The VRE trains that do not allow bicycles are at or near capacity on a daily basis.

NOTE: Folding (collapsible) bicycles are welcome on board all VRE and peak hour WMATA trains as long as they are folded (collapsed) and encased (like luggage). When folding bicycles are "unfolded", they are subject to the same rules as regular bikes.

V. Bicycles as Mode of Access to Transit

Bicycles have the smallest mode share of access to Metro stations, yet they had the largest percentage increase between 2002 and 2007. Two of Metro's highest bicycle mode-of-access stations are in Virginia: East Falls Church and Pentagon City. According to a WMATA rider survey performed in 2007, 0.64% of passengers used a bicycle as their mode of access to Metrorail, up 60% from 2002.

Metrorail Mode of Access* (one-day AM Peak)	2002	2007	% Change
Walk	66,432	78,460	18%
Park and Ride	69,995	68,969	-1%
Metrobus	28,543	34,952	22%
Other bus	13,033	17,620	35%
Dropped Off	21,000	21,911	4%
Commuter Train	8,675	9,002	4%
Ride Sharing	2,606	2,643	1%
<u>Bicycle</u>	<u>969</u>	<u>1,550</u>	<u>60%</u>
Total one-day AM Peak Trips	216,854	240,512	11%

High Bicycle MOA Stations*	Cyclists
Union Station, DC	150
West Hyattsville, MD	148
Foggy Bottom, DC	140
Woodley Park-Zoo, DC	130
<i>East Falls Church, VA</i>	122
Twinbrook, MD	120
<i>Pentagon City, VA</i>	108
Medical Center, MD	104
McPherson Square, DC	102
Silver Spring, MD	102

*Source: <http://www.mwcog.org/uploads/committee-documents/al5cXFzb20090316152251.pdf>

VRE serves predominantly long-distance commuters (average trip-length in FY 2009 was over 28 miles) and draws riders from a catchment area of up to 25 miles or more from an individual station. Less than one percent of VRE's approximately 8,000 average daily riders travel to VRE by bicycle, based on the 2009 VRE Customer Opinion Survey.

VI. Bicycle Parking at Transit Stations and Park and Ride Lots

As shown below, the region has at least 1,767 bike rack spaces and another 1,256 bike locker spaces at transit stations, of which 680 bike rack spaces and 320 bike locker spaces are located in Northern Virginia. An additional 118 bike rack spaces and 104 bike locker spaces are located in VDOT's Northern Virginia park-and-ride lots, many of which are served by transit.

WMATA

WMATA has rack space for 1,660 bicycles, and lockers for 1,300 bicycles at 86 rail stations. WMATA is in the process of replacing its old, unpopular bicycle racks with modern inverted "U" bicycle racks, which occupy less space and will allow for an additional 300+ racks. Lockers, which provide added protection from theft, vandalism and inclement weather, may be rented for \$70 annually, plus a \$10 key deposit. (The FY 2011 proposed budget would increase locker fees to \$200 annually). WMATA periodically surveys its bicycle racks and lockers and budgets for improvements as needed. WMATA is currently studying how it can improve bicycle parking, and other bicycle amenities at or near its Metro stations. See Section VIII in this report for more information.

Metro Station	Jurisdiction	High Rack Usage (76% & Higher)	New "U" racks	Total Number WMATA Rack Spaces	Add'l Rack Spaces Requested	Total Number WMATA Locker Spaces
Braddock Road	ALEX	YES	YES	46	25	12
Eisenhower Ave	ALEX			10		6
King Street	ALEX		YES	34		20
Van Dorn Street-EAST	ALEX	YES	YES	20		
Van Dorn Street-WEST	ALEX	YES	YES	20		6
Ballston-MU	ARL			54		
Clarendon	ARL			12		6
Court House	ARL			25		
Crystal City	ARL			10		
East Falls Church	ARL		YES	88		36
Pentagon	ARL	YES	YES	6		
Pentagon City	ARL		YES	11		22
Reagan National Airport	ARL			18		
Rosslyn	ARL			20		
Virginia Square-GMU	ARL			12		32
Dunn Loring-Merrifield	FFX	YES	YES	40	20	34
Franconia-Springfield	FFX	YES	YES	36	10	20
Huntington	FFX		YES	34		12
Vienna/Fairfax-GMU-North	FFX		YES	54		56
West Falls Church-VT/UVA	FFX		YES	40	21,0	22

Source: WMATA, Fall 2009.

During the course of WMATA's Capital Needs Inventory, Metro staff proposed significant bicycle parking capacity improvements to at least seven stations with high bike demand. The proposal included bicycle cages at five stations with capacity for 150 bicycles, and bike stations capable of holding 150 bicycles at two stations. WMATA has identified \$45 million in bicycle and pedestrian improvements between 2011 and 2020 as part of its capital needs inventory, with investments focused on maintaining existing bicycle facilities, increasing bicycle parking capacity and improving connections to stations from local communities.

City of Alexandria

WMATA and the City of Alexandria have plans to double the number of bike parking spaces at King Street Metro Station from 34 spaces to 68 spaces.

Arlington County

Arlington County's Shirlington Transit Center provides 28 weather-sheltered bike rack spaces. Arlington County provides 1,745 automobile park and ride spaces at Ballston Commons Mall, and supplies numerous bike racks throughout the Rosslyn-Ballston corridor and across the county. WMATA and Arlington County have upcoming projects at Rosslyn, Clarendon and Ballston stations to replace and reconfigure the old racks with new racks. The project at the Clarendon Station will include sheltered bike parking. David Patton, Bicycle and Pedestrian Planner, monitors and plans new bicycle parking facilities in Arlington County, (703) 228-3633.

Fairfax County

Fairfax County operates park and ride lots at 11 locations. Two major bus transit centers include bike lockers: Herndon-Monroe; and Reston-East. These two stations contain a total of 22 bicycle parking rack spaces and 20 bike lockers. Five other Fairfax County park and ride lots contain a total of 22 bike rack spaces. The bike locker yearly rental fee is \$60. In addition, there is a one-time administrative fee of \$10 and a key deposit of \$50 (refundable with return of key).

Park and Ride Lot	Spaces for Cars	Bike Rack Spaces	Bike Locker Spaces	Connecting Bus Routes
Herndon-Monroe*	1,745	9	10	Metrobus 5A, FC551, FC922, FC924, FC926, FC927, FC929, FC950, FC951, FC952, FC980, RIBS2
Reston East*	820	13	10	FC505, FC551, FC552, FC554, FC557, FC595, FC597, RIBS1, 2, 3
Rolling Valley	664	8	0	Metrobus 18, FC310
Reston South	412	11	0	FC553, FC557, FC585
Centreville	372	4	0	FC644, FC642, FC640
Poplar Tree Park	279	0	0	FC605, FC632, FC640
Fairfax County Gov't Center	170	1	0	FC605, FC621, FC623
Autumn Willow Park	100	0	0	
Greenbriar Park	60	0	0	FC605, FC621, FC640
South Run District Park	52	0	0	Metrobus 18
Wakefield Park	50	0	0	Metrobus 17, FC306
Canterbury Woods Park	29	2	0	Metrobus 17, FC306

* Fairfax County has plans to install additional racks and lockers at these locations in 2010.

The Fairfax County Bicycle Coordinator monitors and maintains the bike racks and bike lockers for Fairfax County. Contact him at 703-324-2453 or 703-877-5600

Loudoun County

Loudoun County operates 18 park and ride lots; one includes bicycle parking.

Park and Ride Lot	Spaces for Cars	Bike Rack Spaces	Bike Locker Spaces	Connecting Bus Routes
Leesburg Park and Ride	365	0	10	LC Transit

Bike parking racks in Loudoun County are maintained by the Office of Transportation Services, 703-737-8624.

VDOT

VDOT operates park and ride lots at seven locations in Fairfax County and one location in Loudoun County and all have bicycle parking facilities.

Park and Ride Lot	Spaces for Cars	Bike Rack Spaces	Bike Locker Spaces	Connecting Bus Routes
Backlick North	279	20	0	FC310, 331, 332
Centerville	372	4	0	FC640, 642, 644
Gambrill Road	305	0	12	18R, FC305
Lorton	307	0	20	FC171, 307
Reston North	368	0	20	FC505, 952
Stringfellow Road	385	4	0	12
Sydenstricker Road	170	0	14	FC305
Dulles North Transit Center	750	0	12	LC Transit, VRTA

Fatemeh Allahdoust, VDOT NoVA Bicycle and Pedestrian Coordinator, is in charge of VDOT bike locker monitoring and maintenance. (703) 383-2224. Bike racks are maintained by the VDOT Maintenance Office.

VRE

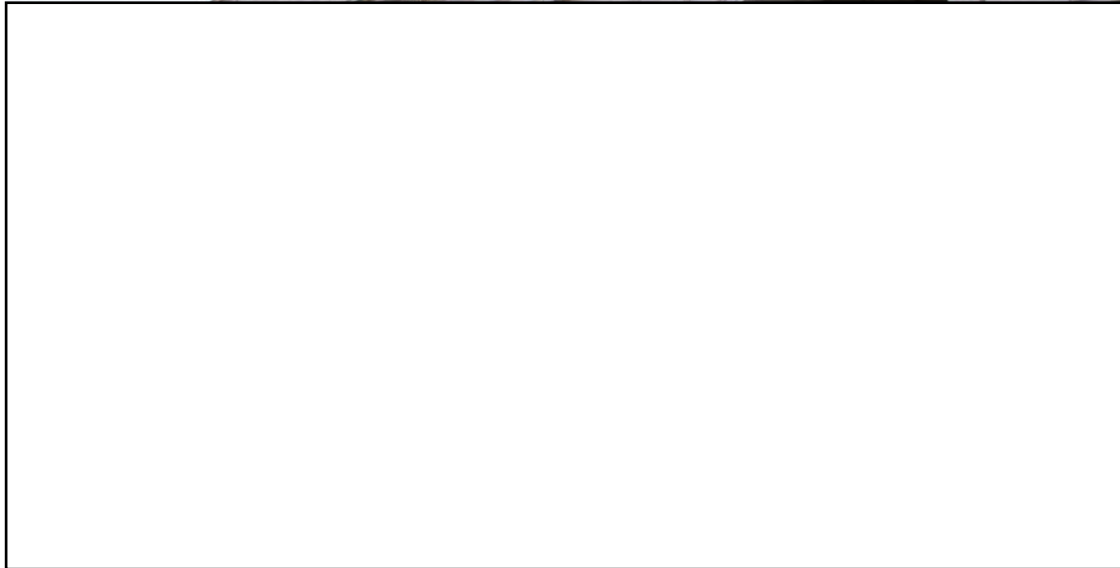
VRE has bicycle parking at all of its stations within NVTC's district. Fairfax County has plans to install additional racks and lockers at all VRE stations in Fairfax County in 2010. At the Franconia/Springfield Station bicycle parking is provided by WMATA and is available for VRE customers. Of the 14 VRE stations south of Alexandria, 12 have bike parking.

VRE Station	Spaces for Cars	Bike Rack Spaces	Bike Locker Spaces	Jurisdiction
Backlick Station	200	12	0	Fairfax County
Burke Centre Station	1,510	15	0	Fairfax County
Lorton Station	469	12	0	Fairfax County
Rolling Road Station	370	8	0	Fairfax County

Bicycle rack maintenance is performed by Fairfax County when the racks are located in the parking lot, and by VRE when the racks are located in the station area. VRE does not monitor rack usage or condition on a regular basis.

Washington, DC

Washington, DC is included here because it has just completed the region's first "Bike Transit Station" at Union Station. This bike station contains indoor bike parking for 150 bikes at \$1.00 per day, plus 20 free outdoor bike parking spaces. A vendor provides bike rentals, repairs, accessories, and lockers. A monthly bike parking rate of \$12.00, and an annual bike parking rate of \$116.00 are also available. No shower facilities are available. The cost of this facility is approximately \$3 million. The Bike Station is operated by a vendor selected by DDOT.



The new 'Bike Transit Station' at Union Station.

VII. Bicycle Maps

Bicycle maps are an important means of alerting bicyclists to safe routes to transit stations and stops. Arlington, Alexandria, and Fairfax County each have excellent full color bicycle route maps available free as online .pdf's and in printed form. Arlington County is preparing a new edition of its bike route map for publication in summer 2010. Other nearby jurisdictions with bicycle route maps include Washington DC, Montgomery County, Eastern Montgomery and Northern Prince Georges County (aka Mid-Maryland Bike Map), the Maryland State Bike Map, and VDOT's Bicycling in Virginia Map.

ADC, in conjunction with MWCOG, has a good bicycle route map built on its Washington, DC 50-Mile Radius Map product that is available for \$12.

A very good online application has recently appeared, created by two NYU students, called "Ride the City". Like MapQuest, Google Maps, and other mapping applications, Ride the City finds the shortest distance between two points, but with a crucial difference. First, Ride the City avoids roads that aren't meant for biking, like highways and busy arterial streets. Second, Ride the City tries to steer cyclists toward routes that maximize the use of bike lanes, bike paths, greenways, and other bike-friendly streets. This project is still in its beta testing phase and can be seen at: <http://ridethecity.org/DC>.

Google announced in early March, 2010 that it has added routes for bicyclists to its menu of options in its Google Maps application, according to the Washington Post. This improvement to its popular mapping and way-finding application makes the software aware of bicycle trails and on-road bicycle routes when finding the best route for bicyclists. Google has also invited bicyclists to comment on and to add content, like noting difficult street crossings, to help improve the accuracy and usability of Google Maps for bicyclists.

VIII. Survey of Transit Websites for Bicycle Information

All Northern Virginia transit websites were examined for ease of finding information on bicycle amenities on transit. The following table shows how customers would locate such information:

Transit System	Web Path to Bicycle Information	Clicks to Find Information	Search Tool Finds "Bicycles" and leads to Bicycle Information?
VRE	Home/Service Information/On-Board Policies/Bicycles	3	yes
WMATA	Home/ Getting Around/Bike N' Ride	4	yes
Fairfax Connector	Home/ How to Bike-N-Ride	2	yes
ART	Home/About ART/ Bike on ART	3	yes
CUE	Home/Bus Rider Information/ Bicycle Racks	3	yes
Loudoun Transit	Home/New Rider Information/Rider Guide -or- Home/Commuter Bus FAQs/ May I Bring My Bike?	3	yes
DASH	Not yet applicable. DASH will install bike carriers soon.	NA	NA

Finding information on WMATA's website on bicycles on transit was the most difficult and posed the most risk of bicyclists not being able to find necessary information. Suggestions on how WMATA can improve the usability of its Bike N' Ride web pages were forwarded to WMATA staff by NVTC staff. For example, on WMATA's home page one sees the blue navigation bar that includes "Getting Around" and "Bike 'N Ride" is listed beneath. One click on "Bike 'N Ride" takes you to the "Bike 'N Ride" page that includes details on the bike racks and lockers at Metro stations, safety tips, and a link to the Washington Area Bicyclists Association (WABA) for further information. Unless one happens to see an additional navigation box on the left, one will not find information about bikes on buses or bikes on rail. There is space on this webpage for more prominent links to more information on bikes on bus and bikes on rail.

IX. Bike Sharing Programs

Though not specifically a bicycle-transit intermodal program, bike sharing is an important way for transit users to expand their travel range and travel time options. Like car sharing, bike sharing is meant for short trips and short time periods. Users subscribe for a \$40 annual fee, and use their Smart Bike swipe card to release a bike from its locking port. There is no usage fee beyond the annual subscription. However, if a user keeps the bicycle for more than 24 hours, a \$550 charge will be assessed. The Smart Bike bicycle sharing system in Washington, DC was started in 2009 by Clear Channel Communications and DC Department of Transportation (DDOT) with 10 'Bike Station' locations and a total of 100 bikes. The city hopes to expand to 1,000 bikes in 100 locations. The "Smart Bike DC" website is: https://www.smartbikedc.com/program_information.asp

Arlington County released an RFP in April of 2009 to build and operate a bike sharing program. Arlington is working with the District of Columbia, Alexandria and Montgomery County on the possibility of establishing a regional program. Approximately 100 bikes are envisioned at start-up in Arlington, and will increase as demand grows. In the first year of operations rental bicycles will be available in the Crystal City-Pentagon City area (because of a generous contribution from the Crystal City Business Improvement District), expanding to the Rosslyn-Ballston Corridor and county-wide as funds become available. Arlington's pricing model will include the first 30-minutes free, then a small charge for each additional 30-minutes to encourage short trips. The county will choose and provide space for the rental locations.

In September, 2009 TPB submitted a TIGER (federal stimulus funds) application for 2,250 shared-bicycles. These bicycles would be distributed at 225 bike stations. The plan calls for 1,000 bicycles in DC, 750 bicycles in Arlington, 200 bicycles in Alexandria, and 300 bicycles dispersed among the City of Fairfax, Bethesda, Silver Spring, College Park, Hyattsville, and National Harbor. An additional 1,000 bikes and 100 bike stations are in a separate federal funding application submitted by the District of Columbia.



A SmartBike kiosk showing rental bikes, special locking rack, card swipe reader, instructions, and maps.

X. WMATA Metrorail Station Area Bicycle and Pedestrian Improvements Study

WMATA and TPB's Bicycle/Pedestrian Subcommittee have teamed up to study bicycles and transit. The study will include a needs assessment to evaluate current and potential demand, a review of best practices from around the world, and recommendations to put solutions to work in the context of WMATA's systems. The study began in early summer of 2009, and will conclude by early spring 2010. The timeframe for implementation of recommended system improvements is the next 10 years.

Possible system improvements include: bicycle parking inside WMATA parking garages, more weather-proof bicycle parking, improved security measures such as key-access bicycle parking cages, improved signage and wayfinding in the vicinity of Metro stations, and improved safety of both pedestrians and cyclists traveling to and from Metro stations. The study's project website is:

<http://www.tooledesign.com/metro/>

XI. TPB Bicycle and Pedestrian Subcommittee, and Bicycle and Pedestrian Plan for the National Capital Region

The Bicycle and Pedestrian Plan for the National Capital Region was adopted at the July 2006 meeting of the National Capital Region Transportation Planning Board. The plan makes pedestrian safety a priority over vehicle movement, accommodates pedestrians and bicyclists into transportation projects (like the new Wilson Bridge), and connects trails throughout the District of Columbia, Maryland and Virginia. The plan contains both funded and unfunded regional projects that would add 680 new miles of paths, bicycle lanes, and other facilities to the region's transportation system. The total estimated cost would be \$530 million for approximately 350 bicycle and pedestrian projects. It is the first regional bicycle plan since 1995 and the first-ever regional pedestrian plan. Every year, the Bicycle and Pedestrian Subcommittee selects a list of top priority unfunded bicycle and pedestrian projects.

The list is a statement of priorities among the *unfunded or partially funded* bicycle and pedestrian projects from local, state, agency, and regional plans. The list will be forwarded to the Transportation Planning Board with the recommendation of the Subcommittee that these projects should be funded in the FY 2010-15 TIP. The ten priority projects include these projects in Northern Virginia:

- **Holmes Run Greenway Shared-Use Path Improvements (I-395/Van Dorn tunnels and N Ripley Street fair weather crossing)** (Alexandria) This project will rehabilitate the existing tunnel under I-395 and Van Dorn Street.
- **Arlington Boulevard Bikeway Improvements** (Arlington County) This project is for design and implementation of a series of bicycle and pedestrian safety and access improvements to the multi-use trail that parallels Arlington Boulevard in Arlington County, between the Fairfax County line to Pershing Drive.
- **Leesburg Pike Seven Corners to Alexandria Pedestrian Initiative** (Fairfax County) A pedestrian safety and access improvement project consisting of pedestrian and bus stop intersection improvement projects and completion of a continuous walkway on both sides of Route 7 from the Seven Corners interchange to Alexandria.
- **Loudoun County Parkway Shared-Use Path** (Loudoun County) Build a 4.4 mile shared-use path parallel to Loudoun County Parkway from Route 7 to Waxpool Road.
- **Old Bridge Road Sidewalk** (Prince William County) between Cricket Lane and Mohican Lane.

The remaining four priority projects are located in D.C., Montgomery County, Prince George's County, and Frederick County.

Program Contact: Mike Farrell - (202) 962-3760

XII. Tysons and Reston Metrorail Access Groups

The Reston Metrorail Access Group (RMAG) was formed in 2006 when Fairfax County Supervisor Catherine M. Hudgins appointed a committee to review vehicular, bicycle and pedestrian access to the proposed Silver Line stations at Wiehle Avenue and Reston Parkway. In November 2006, Fairfax County selected a consulting firm to develop the plan for managing station access issues and improving traffic conditions around the planned stations. This study contained the recommendation that approximately \$22 million of the total project budget of \$105 million be devoted to pedestrian and bicycle access improvements in the station vicinities.

At a March 2009 Fairfax County Board of Supervisors meeting, Supervisor Hudgins, along with Supervisors Smyth and Foust, asked Fairfax County staff to form a group to review multimodal access to the four planned Metro stations in Tysons Corner. The result was the Tysons Metrorail Access Group (TMAG), similar in composition and purpose to the RMAG. The TMAG will review the Tysons plans and will recommend improvements to pedestrian and bicycle access to the future stations as well as within the redesigned and rebuilt Tysons Corner.

XIII. VDOT Policy for Integrating Bicycle and Pedestrian Accommodations

Bicycling and walking are fundamental travel modes and integral components of an efficient transportation network. As such, the Virginia Department of Transportation (VDOT) will initiate all highway construction projects with the presumption that the projects shall accommodate bicycling and walking. Factors that support the need to provide bicycle and pedestrian accommodations include, but are not limited to, the following:

- project is identified in an adopted transportation or related plan
- project accommodates existing and future bicycle and pedestrian use
- project improves or maintains safety for all users
- project provides a connection to public transportation services and facilities (*emphasis added*)
- project serves areas or population groups with limited transportation options
- project provides a connection to bicycling and walking trip generators such as employment, education, retail, recreation, and residential centers and public facilities
- project is identified in a Safe Routes to School program or provides a connection to a school
- project provides a regional connection or is of regional or state significance
- project provides a link to other bicycle and pedestrian accommodations

Full text of the policy is available at

http://www.virginiadot.org/programs/resources/bike_ped_policy.pdf

Local VDOT District staff works to make sure that all VDOT construction projects include bicycle and pedestrian accommodations. VDOT staff also works with all local bicycle coordinators in the region, and participates in all local bicycle planning activities. For VDOT contact information, see Section XIII below.

XIV. Bicycle Coordinators in NoVa Region

VDOT

VDOT NoVa Bicycle and Pedestrian Coordinator
Fatemeh Allahdoust
14685 Avion Parkway
Chantilly, VA 20151
(703) 383-2224
Fatemeh.Allahdoust@vdot.virginia.gov
www.virginiadot.org/programs/bk-rogsup.asp

Arlington County

David Goodman, Bicycle and Pedestrian Programs Manager
(703) 228-3709
dgoodman@arlingtonva.us

David Patton, Bicycle and Pedestrian Planner
(703) 228-3633
dpatton@arlingtonva.us

ART Bus

Steve Yaffe, Arlington Transit Services Manager
(703) 228-3690
syaffe@arlingtonva.us

City of Alexandria

Yon Lambert, Bicycle and Pedestrian Program Coordinator
301 King St., Room 4100, Alexandria, VA 22314
(703) 838-4966
yon.lambert@alexandriava.gov
<http://www.alexride.org/bikeped.php>

DASH Bus

No such position exists

Fairfax County

Fairfax County Bicycle Coordinator
Charlie Strunk
4050 Legato Road, Suite 400
Fairfax, Virginia 22033
(703) 877-5600
bicycleprograms@fairfaxcounty.gov
www.fairfaxcounty.gov/fcdot/bike

City of Falls Church

Transportation Planner

Wendy Block Sanford

City of Falls Church

300 Park Avenue

Falls Church, VA 22046

(703) 248-5041

WBlocksanford@fallschurchva.gov

City of Fairfax/ CUE Bus

No such position exists

Loudoun County/Loudoun County Transit

No such position exists

WMATA

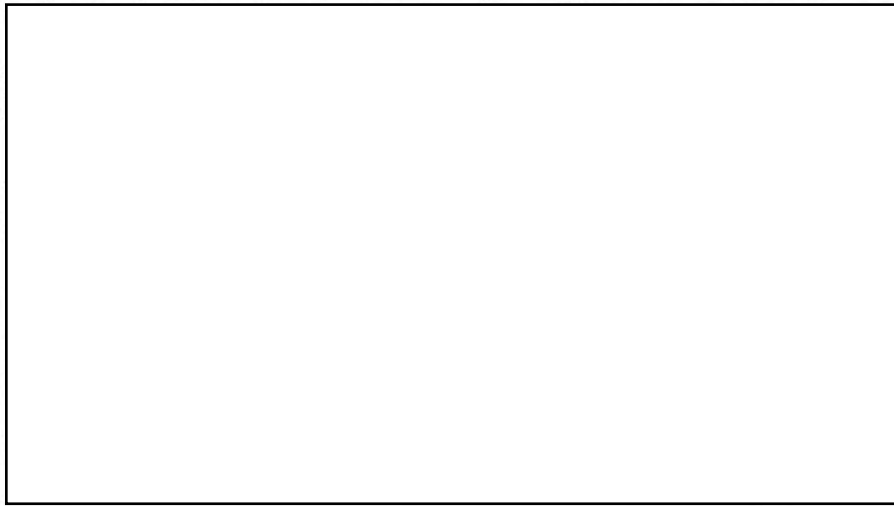
Kristin Haldeman has lead on planning activities, WMATA Office of Long Range Planning, (202) 962-1848

Jackie Pierce has lead on lockers and bike racks, (202) 962-2788.

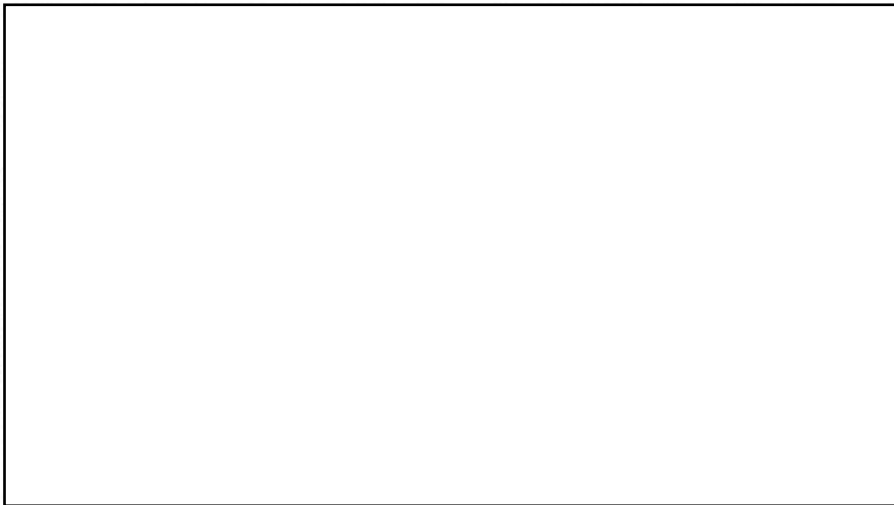
XV. Innovative Ideas from Other Metropolitan Areas

High-Capacity Bike Parking Shelter – Chicago Transit Authority

High-capacity bicycle parking facilities were built at four Chicago Transit Authority (CTA) rail stations in 2005. Chicago DOT used \$675,000 in CMAQ funds to design and construct the facilities. Each bike storage shelter fit into the existing limited space at the stations, providing secure, weather-protected bike parking. A kiosk with bicycling information was also provided near each shelter.



(a)

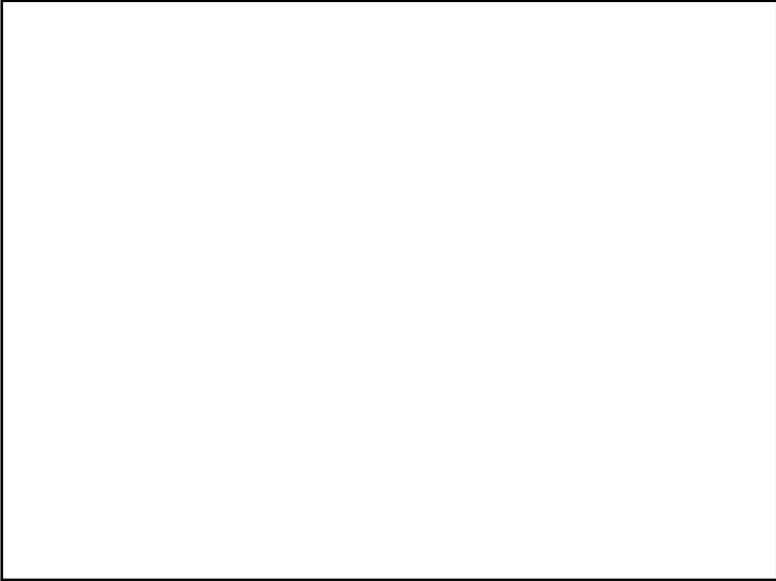
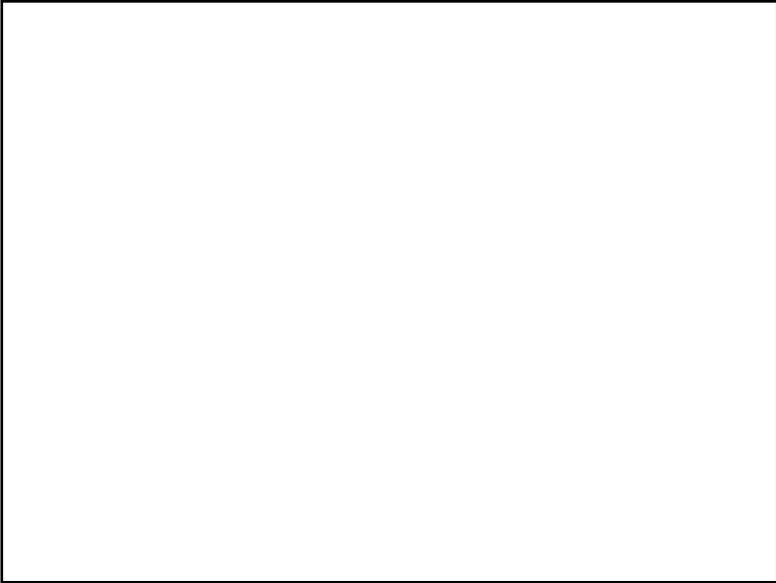


(b)

Before (a) and after (b) pictures of the high-capacity bike parking shelter at Chicago's Midway Transit Station.

Bicycle Parking Shelters – Switzerland

Simple but effective bicycle parking shelters were seen all over Switzerland by the author. This design appears to be relatively low-cost and provides protection from 270° of wind-blown rain.



Bicycle parking shelter in Switzerland.

Bike Tree Automated Parking Shelters – Switzerland

A complex but high-utility bicycle parking machine invented in Switzerland, each 'tree' holds a dozen bicycles in a weather-sheltered unit that simultaneously doubles as a theft- and vandalism-deterrent system. Access to bicycles can be by SmartCard (or SmartTrip) technology that identifies the owner and charges them for each use. Parking 'footprint' is extremely small, approximately 50%-75% smaller than typical bike lockers. Better than typical bike lockers, this system allows any user with an appropriate SmartCard to access the parking, rather than having one user dedicated to one bike locker. Each unit is solar-powered and utilizes wireless network communications to permit easy installation without expensive utility connections. To better understand this unique system it is best to watch this youtube.com video: <http://www.youtube.com/watch?v=OcSD5MsQuVo>



BIKE TREE



BIKE TREE North America
5972 181A Street, Surrey, BC
V3S 5P3 Canada
www.biketree.com

SAFE & CONVENIENT

Bicycle stored several meters in the air
Sensors with camera activation for security
Weather protection
Available 24/7
Card compatible with transit card systems
No hidden areas for questionable packages



AUTOMATED & FLEXIBLE

Wireless network communication
Real time data base operation & analysis
Integrates in existing transportation system
Smart Card activation
Each track can be used by multiple users
Access card allows for flexible pricing
Designed to accommodate electric bikes

ATTRACTIVE

Visually appealing
Promotes bicycling
Sponsorship opportunities
Access card allows for special promotions



CREATIVE

Solar powered with battery back-up
Space efficient and modular
Each track is autonomous
Integrates in architectural design
Easy to relocate (< 8 hours)
Fits in underground parking



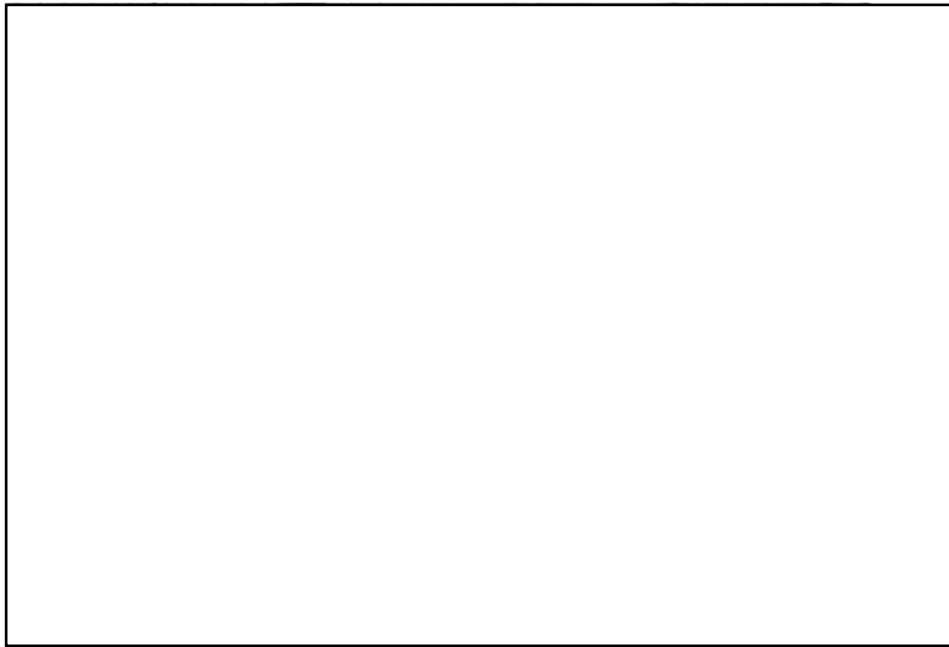
BIKE SHARING

'Bike in your pocket' concept
Available 24/7
Reserve bicycle via Internet or cell phone
Can travel between Bike Trees
Network provides accurate real-time info

BIKE TREE North America – *the simplicity of the bicycle enhancing the quality of the urban environment*

Bicycles on Vanpools – Regional Transportation District (RTD)/Denver Regional Council of Governments

The RTD and the Denver Regional Council of Governments initiated a bicycle-on-vanpool program in 2002 as a way of assisting vanpools to extend their reach of service by carrying bicycles. Vans can use consumer-grade bicycle racks that typically cost around \$150, as compared to the \$400-\$450 cost of transit bus bike racks. By carrying bikes aboard vans, passengers can extend their commute trip at both origins and destinations.

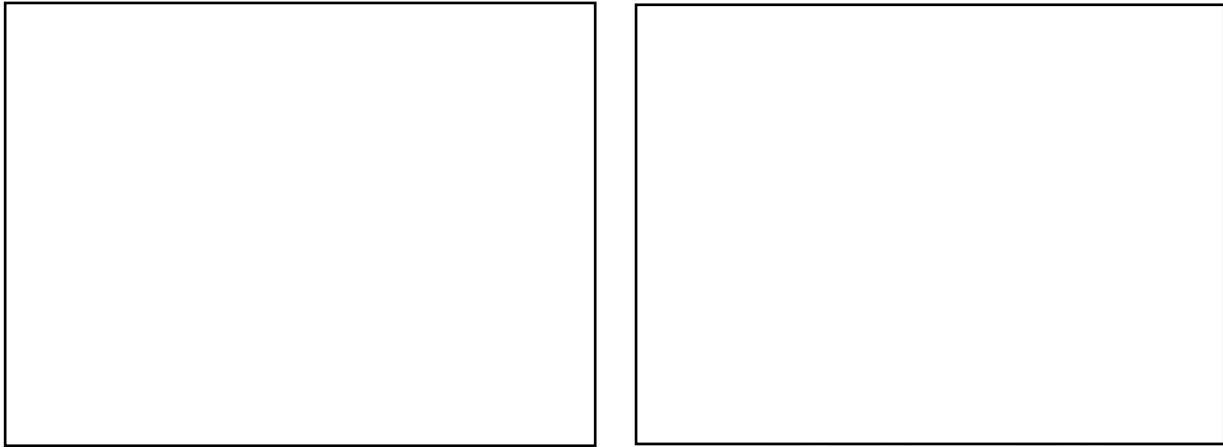


Bicycle rack on an RTD vanpool.

Bus Bike Racks with Capacity for Three Bicycles – Pinellas Suncoast Transit Authority (PSTA)

The Pinellas Suncoast Transit Authority (PSTA) installed bike racks on its buses in 1998. Each of these racks accommodated two bicycles. As more bicyclists took advantage of this amenity, it became more common for both spaces on the rack to be full, resulting in bicyclists having to wait for the next bus. In 2004, PSTA installed three-bike capacity racks on its buses. Many of these racks were filled to capacity within days of starting the program. With the additional bike capacity provided by the new racks, PSTA data showed bicycle-on-bus boardings increased by 8%, from 39,862 in 2003 to 43,096 in 2004. PSTA experienced several challenges to operating buses with three-bike racks. These included bus overhang

dimensions 4 inches greater than two-bike racks, and a simple modification was necessary to prevent bicycle handlebars from interfering with the bus windshield wipers.



Pinellas Suncoast Transit Authority buses with front-mounted three-bicycle capacity racks.

Bicycles on Bus Monitoring

According to TCRP Synthesis 62 “Integration of Bicycles and Transit” an unnamed transit agency in California has mounted sensors on its bus-mounted bicycle carriers to count the number of bicycles carried on its buses. The value of this data is to detect if three-bike capacity racks are warranted, and to detect what routes are most popular with bicyclists in order to provide additional bicycle amenities to attract additional bicyclists.

Bicycle to Work Week – Victoria, British Columbia

Bicycle to Work Week (BTWW) in Victoria, BC is an organization with a full-time executive director, and paid staff. Along with governmental funds from various entities and jurisdictions, BTWW also receives significant funds from corporate sponsors as part of their corporate advertising and branding efforts.

BTWW has found that an entire week of activities, press coverage and marketing has greatly improved the response from non-committed cyclists and non-cyclists. For a metropolitan area with a population of only 330,000, participation in the 2009 Bike to Work Week was an astounding 7,000 individuals, for an overall 2.1% participation rate. Compare this to Washington, DC’s Bike to Work Day that has achieved participation of over 8,000 individuals, or a 0.2% participation rate. In Victoria, they believe that a simple bike to work day captures only committed cyclists and existing cycling commuters, whereas a longer

period attracts new bike riders. As part of their BTWW activities, they provide Commuter Skills Courses throughout the year, and especially during BTWW. The Commuter Skills Course aims to improve the skills and confidence of bicyclists to ride in traffic. This program has especially been successful with women cyclists. BTWW also provides “Celebration Stations” along major cycle commuting corridors, offering refreshments, T-shirts, and sponsors’ booths. A BTWW innovation is the “Commuter Challenge” where 25 to 30 bicycle/driver pairs start from different locations and compete to arrive first at a common destination. Cyclists generally win at least half of these races, even when starting 3 to 6 miles from their destinations. The Commuter Challenge demonstrates that (1) commuter cycling is time competitive with driving, and (2) replacing a vehicle commute with a bicycle commute is a time-effective way to introduce a daily fitness routine.

A key marketing innovation to BTWW is individual workplace recruitment. BTWW recruits team captains – individual champions in workplaces – and helps them market the program by cajoling workplace associates to try cycling to work. Friendly competition has developed between businesses and government agencies to win prizes and gain recognition for high rates of participation. The bicycle mode share at the 679 workplaces that have established teams for BTWW is over 14%, more than double the mode share for cycle commuters in the Victoria region.

See <http://www.biketowork.ca/victoria/btww> for additional information.

Bikes on Board Commuter Trains – Caltrain, California Bay Area

NOTE: This idea may not work in Northern Virginia now because VRE trains are at capacity. Caltrain is not near capacity (see photos on p. 31). For VRE to offer this service, paying passengers would have to be bumped off the train to make room for bicycles. For more information on Caltrain’s Bikes on Board program see http://www.sfbike.org/?caltrain_bob and also http://www.caltrain.com/caltrain_bike_access.html

Caltrain, a San Francisco Bay Area commuter railroad offers space on board its 20 trainsets for 40 to 80 bicycles. Caltrain is working toward a goal of space for 80 bicycles per trainset. Caltrain’s bike on board program has been a huge success. There are more bicyclists wanting to bring their bikes aboard than available bicycle space. Bicyclists routinely report being bumped even when there are plenty of empty seats. See photo. Routine bumping discourages bicycle commuters from using Caltrain at all, because 80% of bicycle commuters rarely if ever take Caltrain without bringing their bicycle on board. Routine bumping causes frustration, missed appointments, unreliable service, and wasted time standing on the platform. In the one-year period ending June 2007, 64% of bicyclists reported having been bumped, most of them repeatedly. Frustrated cyclists quit using the train and start driving, resulting in increased congestion on the roads and lost revenue for Caltrain.

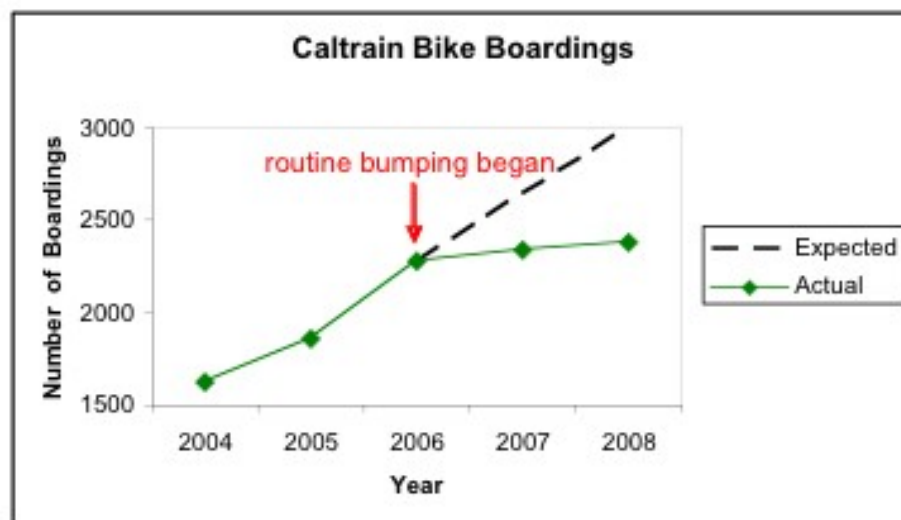
Caltrain is a national model for intermodal transportation — more cyclists use Caltrain than any other commuter rail service in the United States. This is not surprising, because Northern California is blessed by mild ice-free temperatures and low precipitation. High bicycle ridership in many municipalities has helped generate a bicycle community. Cyclists have been instrumental in encouraging Caltrain to accommodate the growing demand of bikes on board trains. The BIKES ONboard project is working to ensure that Caltrain's future plans continue to incorporate cyclists' needs.

Many cyclists need their bicycle at both ends of their commute, because their starting point and final destination are not near the train station. Often public transportation is either nonexistent, or riding a bicycle is faster and/or more reliable than the available public transportation. Bringing a bike on board the train provides flexibility — cyclists can easily change their commute pattern, or run an errand during the day or on the way home.

Eight percent of Caltrain passengers ride their bike to the station, and 7% bring their bike onboard the train. Bicyclists were Caltrain's fastest growing passenger segment, until limited bike capacity thwarted growth in 2006 when routine bumping began. Caltrain may be losing as many as 1000 bicycle boardings per weekday, because there is too little bike space on trains. Passengers who ride their bikes to Caltrain stations save Caltrain and the State of California a great deal of money that would have gone towards larger parking lots and parking structures.

From 2003 to 2006, walk-on passengers increased 16%, whereas bicycle passengers increased 41%. From 2006 to 2008, walk-on passengers increased another 16%, but bicycle passengers increased only 5% due to limited space for bicycles on trains.

Source: San Francisco Bicycle Coalition, http://www.sfbike.org/?caltrain_bob



No Space for Bikes: A photo study of trains with too many passenger seats and not enough on-board bike spaces



1: Train 134: Sept 22 9:07 AM



2: Train 134: Sept 22 9:07 AM



3: Train 230: Sept 24 8:53 AM



4: Train 230: Sept 24 8:53 AM



5: Train 332: Sept 30 8:56 AM



6: Train 332: Sept 30 8:56 AM

Submitted to JBP Oct 2
by Benjamin Damm

Source: San Francisco Bicycle Coalition

Bikes on Board Light Rail Trains – Metro Transit Hiawatha LRT, Minneapolis

Metro Transit’s Hiawatha LRT line is a 12-mile route serving 17 stations connecting three of the Twin Cities’ most popular destinations — downtown Minneapolis, Minneapolis/St. Paul International Airport and Mall of America in Bloomington. Ridership is over 30,000 daily, and over 10.2 million annually. The ability to carry bikes on-board was designed into the Bombardier LRT vehicles. Each trainset consists of two cars, and each car can accommodate up to two bikes in interior vertical racks. See photo. Counts conducted in May 2009 showed that at least 90% of all LRT trains had at least one bike on board.



Bike2Benefits – Metro Transit, Minneapolis

Bike2Benefits is a bicycling promotion tool that encourages bicycling to work in order to qualify for periodic prize drawings. Bike2Benefits is open to anyone 18 or older who lives and works in the

Minneapolis metropolitan area. There is no fee to participate. Participants must register on-line and track their bicycle commuting on-line. If participants bicycle to work or to a transit stop once a week over eight weeks instead of driving alone, and track their trips on the online calendar, they are automatically entered into an annual prize drawing. In 2009, the top prize was a \$500 gift certificate at a local bicycle shop of the winner's choosing. Two \$250, three \$100, and four \$50 gift certificates were also awarded. By the end of 2008, more than 2,100 people had joined the program and logged more than 388,000 miles. Participants also receive a free e-newsletter that highlights pertinent bicycling information.

XVI. Policy Recommendations and Items for Further Study

In light of the energy, air quality, climate change, health, and congestion benefits from bicycling described above and the safety benefits of enhanced bicycle and pedestrian access to transit, the following policy recommendations are provided for the consideration of elected officials and the public in Northern Virginia.

1. Monitor Bike/Transit Use

While most transit systems in the region offer bike racks on buses and/or at rail stations and bike access on trains, few systems compile and report the extent to which their customers use bikes to access transit. This reporting should occur to provide a measure of success in promoting such connections.

2. Monitor Rack Usage on Buses

Local transit agencies should periodically survey their buses to help determine whether investments in bike racks on buses is a wise investment and to detect how often both of the two bike rack spaces are simultaneously occupied. When it appears that cyclists are beginning to be regularly 'bumped', transit agencies should start to plan for the purchase of triple-space bike carriers to replace existing double-space bike carriers.

3. Measure Effect of Covered Bike Parking on WMATA Passengers

Is East Falls Church Metro station one of the most popular stations to access by bicycle because it offers covered bike parking? See page 8 of this paper. EFC Metro station's bicycle parking happens to be located in a weather-sheltered area beneath I-66. A stated preference survey would uncover why more cyclists access this station than any other in Virginia. If it is true that weather-sheltered bicycle parking draws significantly more cycling passengers, who might otherwise drive their automobiles, it would help determine whether WMATA and its jurisdictions should invest in sheltered bicycle parking at stations.

4. Consider Increased Investments in Bike Shelters or Bike Lockers at Transit Stations

Mr. Allen J. Muchnick, Board Member of the Virginia Bicycle Federation, at a public hearing at NVTC on Jan. 7, 2010 spoke on the need to improve bicycle parking infrastructure at VRE stations. He noted that Broad Run and Brooke stations provide no bicycle parking. He also noted that there are 8,338 automobile parking spaces at VRE stations and that six stations' parking lots are over 90% full. Mr. Muchnick points out that before automobile parking is expanded at VRE stations, bicycle shelters and rental bicycle lockers should be installed.

Bicycle parking facilities are much less land intensive than automobile parking expansion: one automobile parking space can contain approximately eight bicycle lockers. He stated that improved bicycle parking infrastructure can be a cost-effective way to increase overall passenger parking capacity.

VRE staff responded that VRE supports expanding opportunities for bicycle access, where appropriate and consistent with jurisdiction goals and plans. Currently, VRE works with the jurisdiction in which the station is located to identify bicycle accommodations, as part of larger capital improvement projects (e.g. parking expansion) or as stand-alone projects. VRE is supportive of expanding bicycle parking facilities as a means of increasing overall passenger parking capacity, where such bicycle facilities serve an identified need, are consistent with local jurisdictions' plans and where public safety conditions support bicycle access. In some cases, such as the Broad Run VRE station, the lack of safe bicycle access via roads serving the station was a key factor in the decision by VRE and Prince William County to postpone the addition of bicycle parking at the station.

VRE staff noted that as the Brooke parking facility is expanded bicycle parking will be considered as part of the design. Inverted "U" racks have been added at Burke Centre and more racks are being provided at Rolling Road, Backlick, and Lorton, together with additional racks and lockers at Burke Centre.

After evaluating benefits and costs of proposed investments, providing more bike racks, shelters and lockers for the region's transit systems, both rail and bus, may be a worthwhile goal.

5. Transform *Bike to Work Day* to *Bike to Work Week*

Thousands of bicyclists turned out to celebrate Bike to Work Day 2009 at locations in the District of Columbia, suburban Maryland, and Northern Virginia. Over 8,000 people signed up to participate in advance of the event, which set a new record for registrations.

The annual event, sponsored jointly by MWCOG's Commuter Connections and the Washington Area Bicyclist Association (WABA), promotes bicycling as a healthy, low-cost and environmentally friendly alternative to drive-alone commuting.

Including Freedom Plaza in downtown Washington, DC, bicyclists gathered at a total of 26 "pit stops" featuring entertainment, food, drinks, and raffles. The raffle prizes included commuter bags, bike locks, bicycles, and other bike-related gadgets and accessories. Experienced WABA volunteers helped lead "commuter convoys" from across the area to Freedom Plaza and other pit stop destinations. Convoy leaders assisted participants with safe riding and equipment tips as well as showing riders the best route to their destination.

Bike to Work Week in Victoria, British Columbia has succeeded in attracting an overall participation rate over 10 times higher than this region's Bike to Work Day (see page 28 of this paper). A Bike to Work Week in the Washington, DC region might attract a similar success by being in the public's awareness for a longer period.

Several Victoria Bike to Work Week (BTWW) innovations could be copied here. The "Commuter Challenge", where 25 to 30 bicycle/driver pairs start from different locations and compete to arrive first at a common destination is an effective public relations tool to generate greater public awareness of bicycling benefits. In Victoria, cyclists generally win at least half of these races, even when starting three to six miles from their destinations. The Commuter Challenge demonstrates that (1) commuter cycling is time competitive with driving, and (2) replacing a vehicle commute with a bicycle commute is a time-effective way to introduce a daily fitness routine. The other innovation is individual workplace recruitment. BTWW recruits team captains – individual champions in workplaces – and helps them market the program by cajoling workplace associates to try cycling to work. Friendly competition has developed between businesses and government agencies to win prizes and gain recognition for high rates of participation. The bicycle mode share at the 679 workplaces that have established teams for BTWW is over 14%, more than double the mode share for cycle commuters in the Victoria region.

If the Washington, DC region does undertake such an extended promotion, it should emphasize ways for bicyclists to connect with public transportation.

6. Provide Bicycle Accommodations on New LRT and BRT Corridors

For future light rail and streetcar projects, planners should pay close attention to both pedestrian and bicyclist amenities including sheltered bicycle parking at LRT stations, safe street crossings near stations, wayfinding aids, on-street bicycle lanes in station vicinities, and on-board bike racks aboard new LRT vehicles.

New BRT corridors should likewise integrate high-quality bicycle and pedestrian amenities.

7. Support VDOT's Policy of Integrating Bicycle and Pedestrian Accommodations and Encourage On-going Regional Plans and Studies

For example, TPB's Bicycle and Pedestrian Plan, WMATA's Metrorail Area Bicycle and Pedestrian Improvements Study, the Tysons and Reston Metrorail Access Groups and the City of Falls Church's Pedestrian, Bicycle and Traffic Calming Master Plan all should be supported.

8. Look for Opportunities to Demonstrate New Bicycle/Transit Technologies

Examples include several described above in Section XV, including high-capacity and automated bicycle shelters and prizes to induce more bike/transit connections.

APPENDIX – Other Bicycle Planning and Advocacy Bodies

Arlington Bicycle Advisory Committee

The Arlington Bicycle Advisory Committee holds regular meetings **open to the public** on the first Monday of the month. The meetings are held at Court House Plaza, 2100 Clarendon Blvd. in the lobby meeting rooms (A,B,C, or D) beginning at 7:30 PM.

Mission Statement: To provide citizen input in planning and programming bicycle improvements and in promoting bicycling in Arlington County.

Goals Include:

1. To provide citizen input in planning bicycle trails, bicycle parking and bicycle street access in Arlington County.
2. To promote bicycling safety and education and greater use of bicycles.
3. To inform the County Board, staff, and citizens about bicycling issues that affect Arlingtonians.
4. To provide citizen input in the planning process for new transportation construction in and around Arlington County.
5. To forge links with other citizen advisory committees in Arlington, as well as in neighboring municipalities, that share issues common to bicycling in Arlington.
6. To work with the Arlington County staff including the Bicycle and Pedestrian Coordinator to achieve the above mentioned goals.

Membership: The Committee will include up to 15 voting members. The Committee membership should reflect the make-up of the Arlington bicycling population. The committee should also include at least one member representing an Arlington bike shop or the local bicycling industry. Members who miss three consecutive meetings may be removed from the Committee. New members will be appointed by the Committee Chairman. All meetings will be open to attendance by the public.

Officers: The Committee shall choose from its voting members a Chairman, Vice-Chairman and Secretary. The Chairman shall conduct the meetings and work with the Bicycle and Pedestrian Coordinator to prepare an agenda for each meeting, the Vice-Chairman shall fill in for the Chairman in his or her absence, and the Secretary shall prepare minutes of each meeting. The officers shall serve two year terms.

Quorum: A quorum shall be a majority of the voting members of the Committee.

Votes: A quorum must be present before any vote is taken. Motions put before the Committee require a vote of the majority of the members present to pass.

Staff Contact: [David Goodman](#), (703) 228-3709

Bicycle Advisory Committee Chairman: [Randy Swart](#)

Alexandria Pedestrian & Bicycle Citizens' Group

The city of Alexandria also has monthly meetings of the Alexandria Pedestrian & Bicycle Citizens' Group which basically consists of many of the same people. This group advises the city on pedestrian and bicycle issues. Their meetings are also on the first Monday of every other month - the odd months.

Information on the city sponsored group can be found on:

http://www.alexride.org/bikeped_citizensgroup.php

BikeWalk Alexandria <http://bicycle.alexandria.va.us>

BikeWalk Alexandria, a chapter of BikeWalk Virginia, is chartered to represent the concerns of pedestrians and bicyclists. We promote pedestrian and bicycle safety throughout the City through various initiatives. One of our goals is a more enjoyable community with reduced motorized traffic.

Join us at our monthly meetings at St. Elmo's Cafe at 2300 Mt. Vernon Ave. in Alexandria. We generally meet at 7:30 pm on the first Monday of every other month - on the even months. Stay current on Pedestrian and Bicycle Safety Issues and meeting announcements by subscribing to the BikeWalk Alexandria's e-mail list serve. You can do this by providing your email address to the list serve at: <http://bicycle.alexandria.va.us/mailman/listinfo/bsc>

Fairfax Advocates for Better Bicycling <http://www.fabb-bikes.org/>

Who we are: We are a group of concerned cyclists who want to make bicycling an integral part of the transportation network of Fairfax County, Virginia. Monthly meetings are generally held on the third Wednesday of each month. Check website for place and times.

FABB is affiliated with the [Washington Area Bicyclist Association](#) (WABA) and focuses on bicycling issues in Fairfax County and Fairfax City.

Fairfax County Bicycle Program <http://www.fairfaxcounty.gov/fcdot/bike/>

About the Bike Program:

In 2006 the Fairfax County Board of Supervisors approved the comprehensive bicycle initiative, a program committed to making Fairfax County bicycle friendly and safe. Program responsibilities have been assigned to the Fairfax County Department of Transportation.

The bicycle work program includes: creating and updating the County's Bicycle Route Map, installing, managing, and maintaining bicycle lockers and racks, preparing County bicycle parking standards and specifications, coordinating with VDOT to develop a network of on-road bike lanes, providing technical

assistance to local jurisdictions and private developers for bicycle design guidance, and establishing project list and implementation schedule of bicycle capital improvements countywide.

Fairfax County Trails and Sidewalks Committee <http://www.fairfaxcounty.gov/trails>

The Trails and Sidewalks Committee consists of representatives from the nine magisterial districts, an at-large representative, and representatives from the following organizations: Fairfax County Park Authority, the Northern Virginia Regional Park Authority, the Clifton Horse Society, Washington Area Bicyclist Association, Northern Virginia Builder's Industry Association, Fairfax Area Disability Services Board and the Fairfax County Federation of Citizens Associations.

Staff from the County Department of Planning and Zoning , the Department of Public Works and Environmental Services, the Department of Transportation and the Park Authority assist the committee. The committee evaluates existing facilities for trails, sidewalks and bicycle routes and assists the county in producing maps of these facilities, and plans new facilities. Committee members also evaluate subdivision plans and site plans for trail facilities.

Vision: To ensure that residents and others can easily and safely travel between and through major commercial, residential, and natural areas using non-motorized transportation.

Bike Loudoun <http://www.bikeloudoun.org/about>

BikeLoudoun was formed in December 2008. BikeLoudoun's short-term objectives are to establish a Loudoun County Bicycle Advisory Committee, convince the County to designate a Bicycle Program Manager, update the 2003 Bicycle and Pedestrian Mobility Master Plan, and include the latter as a component of the revised Countywide Transportation Plan.

Transportation Planning Board (TPB), Bicycle and Pedestrian Subcommittee

Chair: Dave Goodman, Arlington Department of Environmental Services, - (703) 228-3709

Staff Contact: [Michael Farrell](#) - (202) 962-3760

The Bicycle and Pedestrian Subcommittee provides advice and assistance to the Technical Committee and is responsible for the update and evaluation of the Regional Bicycle and Pedestrian Plan. The group also provides public information, including a bicycle route map that is produced jointly by the subcommittee and a local map publisher. The group oversees the Street Smart Pedestrian and Bicycle Safety Campaign. Lastly, the group facilitates technology transfer and information sharing, as it relates to state and local programs.

Pedestrian Safety Workshop

With the assistance of the Bicycle and Pedestrian Subcommittee, TPB and COG staff organized Pedestrian Safety Workshop, which took place on April 29, 2008 at the National Press Club in Washington, D.C. The workshop, sponsored by WMATA, COG, MDOT, VDOT, DDOT and AAA, was attended by approximately 200 individuals, including elected officials and pedestrian safety experts from a variety of fields: transportation, law enforcement, engineering, public education, transit, disability services, planning, health, engineering, schools, public affairs, insurance, military, business, community organizing, and media. The workshop agenda, speakers and presentations can be viewed [here](#).

Recommendations from the workshop formed the basis for a COG Board Resolution on pedestrian safety, R32-08, [adopted June 11, 2008](#).

Street Smart

The Subcommittee oversees the Street Smart Pedestrian and Bicycle Safety Campaign, a semi-annual media and enforcement campaign aimed at changing pedestrian and motorist behavior. The most recent campaign wave took place March 23 to April 19, 2009.

Virginia Bicycling Federation <http://www.vabike.org/>

The Virginia Bicycling Federation is a statewide advocacy organization, representing bicyclists throughout Virginia. We work to change public policy and community attitudes, to improve the safety, convenience, and acceptance of bicycling.

We also work closely with elected officials and government agencies — the Virginia Department of Transportation (VDOT), Department of Conservation and Recreation (DCR), and Department of Rail and Public Transportation (DRPT) — to gain advancements in bicycling access and safety, and development of off-road trails.

We worked closely with VDOT to develop the [VDOT Policy for Integrating Bicycle and Pedestrian Accommodations](#) (adopted 2004). We continue to work with VDOT and legislators to ensure implementation and improvement of these policies.

Washington Area Bicyclist Association (WABA) <http://www.waba.org/about/>

WABA's Mission:

The mission of the Washington Area Bicyclist Association is to create a healthy, more livable region by promoting bicycling for fun, fitness, and affordable transportation; advocating for better bicycling conditions and transportation choices for a healthier environment, and educating children, adults, and motorists about safe bicycling.

WABA's Goal:

A fully integrated transportation system. One that links transit, trails, bicycling, and walking facilities to connect the places you live, work, and play. Make your community a place you can ride anywhere you want to go—safely.

"WABA is making a strong statement that bicyclists are an important component of transportation in the District, as they reduce congestion and contribute to the health of the city and all of its residents." -
Former DC Mayor Anthony Williams

Current Priorities:

- Complete Streets policies in DC and in Montgomery County, MD
- Construction of the Metropolitan Branch Trail and Anacostia Trail
- Increase miles of bike lanes striped across region
- Promote bike sharing service in DC
- Identify funding for a Bike Plan for Fairfax County
- Reconstruction of the Rock Creek Trail
- A Bike Coordinator for Prince George's County, MD
- Protect the Custis Trail from the widening of I-66
- Ensure a bike-friendly transportation center in Silver Spring
- Improve training of police officers and bus drivers
- Expand Bike Safety programs in Northern Virginia