

KEY

Black – Existing MTP language

Red- Recommended revisions

I. Introduction and Context

Arlington’s Master Transportation Plan

The Master Transportation Plan (MTP) Goals and Policies document specifies three general policies that form the foundation of the MTP and, therefore, transportation in Arlington in the years ahead: integrating transportation with land use, supporting the design and operation of complete streets, and managing travel demand and transportation systems. This element of the MTP focuses on bicycle travel, which is greatly affected by land use, street design, traffic volumes, fuel prices, public perception and transportation system management. Bicycling can also substantially affect demand management by substituting for local travel by motorized vehicles.

Arlington County developed its’ first bicycle master plan in the early 1970’s. That document established the first network of bicycle and pedestrian trails as well as signed on-street routes. The 1986 comprehensive rewrite of Arlington’s MTP brought bicycles firmly into the County’s multi-modal transportation planning. Subsequent bicycle plans added elements related to secure bicycle parking and bicycle lanes. The *Bicycle Element* of the MTP that was adopted in 2008 incorporated an expanded bicycle network plus extensive attention on educational and informational activities to encourage more travel by bicycle.

Since adoption of the *Bicycle Element* in July 2008, there have been substantial changes to the bicycle environment in Arlington, the Washington, DC region and nationally that have changed the landscape for bicycling in urban areas. One of the most significant changes has been the introduction of regional bikeshare systems. In addition, several types of enhanced on-street bicycle facilities, such as buffered and protected bicycle lanes, have been implemented. Changes to national engineering and design guidance have also enabled greater utilization of innovative bicycle facility treatments. Moreover, during the past decade there has been substantial growth in bicycle usage and awareness which necessitate making further revisions to the County’s plans for how bicycling should be provided for and how to achieve more equity between travel modes and traveling populations.

This updated 2008 *Bicycle Element* carries forth the overall goals and policies of Arlington’s MTP while simultaneously bringing the plan up to date with the advances of the past ten years and looking ahead to what the community desires for the next decade. Consequently, this document includes both policy language from the 2008 *Bicycle Element* and new policy and implementation action statements.

This *Bicycle Element* focuses on increasing the use of bicycles as a transportation mode in Arlington by broadening the population of persons that feel safe and comfortable riding bicycles

on our streets. The primary initiatives of that objective are to upgrade the bicycling network – achieving a comprehensive network low-stress bicycling routes - and making bicycling a “normal” activity for persons of all ages and abilities. In addition to facility upgrades, achieving the objective will include actions directed towards education, raising general awareness and further integrating bicycling needs in all aspects of planning, design, operation and maintenance of our community resources. Increasing the use of bicycles as part of multi-modal travel should also be facilitated.

The Role of Bicycling in Arlington Transportation

Arlington is a vibrant community, in the heart of the dynamic Washington, DC Metro region. Arlington’s transportation network has enabled a strong quality of life in the County, by providing various transportation options, making it possible to travel around and through Arlington at all times with relative safety, speed and ease. Bicycling has consistently been one of the transportation options integral to Arlington’s successful transportation network.

As continued growth of both the County and the DC region produces more travel demands on the transportation system, threatening gridlock on our roads and overcapacity on our transit system, the need for a multimodal transportation system becomes greater. Moreover, the closer our streets and transit system are to their maximum capacity, the less resilient they are at times of extreme stress, such as during natural disasters or major facility shutdowns. In communities, such as Arlington, it is increasingly important to provide varied options to serve diverse resident and visitor travel needs while also finding ways to reduce the environmental footprint of local transportation systems.

Bicycling plays a unique role in managing transportation demand for the growing population. When using bicycles, people can travel short- and medium-range distances quickly and efficiently while retaining freedom and flexibility in their routes and schedules. Bicycling can connect many origins and destinations to transit stations, giving our transit system a broader reach on fixed routes. Shifting trips from motor vehicles to bicycles can also improve motorists’ travel by reducing congestion and demand for parking spaces.

Additionally, the cost to the County of building or maintaining facilities for bicycling is typically many times lower than facilities for driving or transit. In addition, bicycles take up much less space than motor vehicles, particularly while parked. Significant amounts of bicycle parking can be placed within existing streetscapes and building sites at low fiscal expense and with minimal opportunity cost, thereby reducing our community’s need for paving parking areas that otherwise could be used for open space or other uses. Bicycling because of its low cost and lack of licensing or other requirements is a very accessible travel mode, particularly for persons with low-incomes and those unable to obtain drivers licenses. Bicycling, along with walking and public transit, enhances equity in Arlington as it broadens travel opportunities for all persons.

Recent technology changes have made low-powered, personal mobility devices such as electric-bikes, motorized skateboards and scooters, more affordable and reliable means of transport.

These devices generally operate best in the same facilities – bicycle lanes and trails – that are provided primarily for bicycles. Enhancing the bicycle network allows other personal mobility devices to operate better, benefitting travelers who may not be able to, or interested in, pedaling bicycles and also those who may need some motor assistance when going uphill or carrying large loads/extra passengers.

Bicycling and other active transportation also enhance the health of our citizens by providing moderate exercise while commuting and undertaking other personal travel. In addition to being clean and quiet, bicycling and other active transportation help to build community. People walking and bicycling are connected to their community in a way that people in cars and other vehicles are not. Bicyclist can more easily converse with neighbors, observe happenings in their communities and spend more time traveling on local streets. Bicyclists also help the local economy as they are more likely than motorists to shop at nearby businesses, and to make more frequent visits. Bicycling fits well with Arlington’s local values of encouraging all residents to get out and be part of the community.

II. Vision and Goals

Bicycling should be encouraged and supported by Arlington County as a means to enhance local mobility and to help achieve many community ideals including: environmental sustainability, economic vitality, enhanced public health and social equity.

Vision:

Bicycling is an integral part of Arlington’s balanced, multi-modal transportation system and is safe and comfortable for individuals of all ages and abilities.

The vision statement captures a few important themes:

- Bicycling supports the Master Transportation Plan’s general policies of providing viable travel options, supporting the design and operation of complete streets and managing travel demand and transportation systems.
- Safety of bicycling is a priority for Arlington County.
- Comfort suggests that biking is a convenient and attractive travel option.
- “All ages and abilities” is a priority for the plan, supporting the planning and building of bicycle facilities for individuals of various ages and levels of bicycling skill and confidence.

Plan Goals:

- ~~Complete the Bikeway Network~~ Establish and continuously improve a low-stress bicycle network that efficiently connects all of Arlington.
- ~~Increase Bicycle Use~~ Increase the number of trips made by bicycle through improved infrastructure, more education, smart law enforcement and positive encouragement.

- C. ~~Improve Bicycle Safety~~—Improve the safety and comfort of bicyclists of all ages, abilities and income levels.
- D. ~~E. Manage and Maintain the Bikeway System~~—Properly manage and maintain the infrastructure that makes bicycling desirable and supports a high quality of living in Arlington.
- E. ~~D. Integrate All Modes of Transportation with Bicycling~~—Promote bicycling as an integral part of a sustainable and equitable transportation system.

Those goals are supported by 27 strategy directives including the following statements which directly relate to bicycle policy. Those strategies are:

- Expand and complete the bikeway network with a focus on high-quality facilities, overcoming barriers and facilitating overall connectivity.
- Encourage the use of environmentally sustainable modes including bicycling, walking, transit, carpooling and telecommuting.
- Minimize rates of injuries and accidents for each mode and ensure that transit riders, pedestrians, bicyclists, and motorists feel safe and comfortable at all times when traveling in Arlington.
- Manage motor vehicle congestion by emphasizing transportation alternatives, parking management and queue management.
- Increase energy efficiency and reduce hydrocarbon emissions by encouraging and accommodating non-motorized travel, public transit, carpooling, telecommuting and alternative fuel vehicles.

III. Summary

Arlington envisions itself as ~~becoming, if not already being,~~ one of the nation’s best places to bicycle. The County’s emphasis on mixed-use development, medium- to high-density and compact neighborhoods, creates an environment that generates many short trips where bicycling is most effective. Many residents and visitors regularly use bicycles for transportation and recreation. The County also has a history of working to improve bicycling conditions through its extensive Bike Arlington Program. Despite these positive aspects, many people ~~still perceive~~ find bicycling to be a challenging or impractical means of transportation. It is Arlington’s vision that ~~everyone~~ persons of all ages and abilities—residents, incoming daily commuters and other visitors—feel safe and comfortable bicycling on the County’s streets and trails. This document sets forth the plan for making that vision a reality. Arlington’s ability to increase the number of people who bicycle, and the frequency with which they do so, will be a measure of the County’s ability ~~to preserve and~~ improve overall quality of life.

The current bikeways network, comprising shared-use trails; marked, ~~protected and buffered~~ bike lanes; ~~bicycle boulevards~~; and signed bicycle routes, serves much of Arlington well, links

across the Potomac River, and includes trails that extend south and west into neighboring Virginia jurisdictions. Significant gaps, however, remain in the network, resulting in barriers that leave bicyclists in portions of Arlington disconnected from the overall network. ~~The~~ A primary focus of the Bicycle Element is the completion of a more fine-grained and comprehensive bicycle network of trails, bike lanes, and ~~other protected or buffered~~ on-street facilities. Bicycling ~~would~~ ~~will~~ be a more viable travel option for many Arlingtonians ~~if when~~ several key bikeway network connections ~~were are~~ completed. Enhancements in bicycle parking facilities at transit stations, shopping centers, offices, and in multifamily residential buildings will also improve ~~the effectiveness of the network~~ bicycling in Arlington.

The plan establishes an objective of having at least half of all residents ride bicycles for transportation purposes at least occasionally. Such a participation level would indicate that “average” residents find bicycling to be safe and convenient enough to use for at least some of their transportation needs. Achieving this level of comfort with bicycling will require, in addition to the facility network improvement, an effort by the County to address safety concerns. Policy proposals in the plan aimed at achieving greater safety and user comfort include ~~facility upgrades~~, enhanced traffic law enforcement, safety education efforts, and promotional events such as mass rides ~~and training classes~~. Young bicyclists, in particular, would benefit from the proposed greater emphasis on “safe routes to school” educational and promotional efforts.

Bicyclists are also expected to gain from the overall efforts of the County to expand the multimodal aspects of its transportation system. In particular, the effort to rebalance street space allocation to achieve more Complete Streets (explained in detail in the Streets Element of this plan) will help ~~create safer and more comfortable streets and reduce conflicts between bicyclists and pedestrians on sidewalks~~ ~~cyclists~~. An upgrade of bicycle access to transit stations, through the construction of ~~“bike stations” and other~~ secure, sheltered parking, will strengthen the intermodal connection between bicycling and public transit.

IV. Policies, Implementation Actions and Performance Measures

~~The MTP’s Goals and Policies element, which establishes overall County transportation policy, includes nine principal policies regarding bicycling. A total of twelve principal policies have been developed to provide direction to County offices regarding bicycling. Those policies are grouped in this section into five categorical areas – completing the bikeway network, increasing bicycle trips use, enhancing improving safety and comfort, managing and maintaining facilities and integrating bicycling with other modes in a sustainable and equitable transportation system. For each policy statement one or more implementation actions are is-identified to provide specific direction in how to achieve the policy’s intended outcomes. The policies have been given new numbers as well as have the number assigned in the Goals and Policies document in~~

~~parentheses~~. Performance measures are proposed as appropriate to assess progress toward achieving the policies.

Goal A. Complete the Bicycle Network

Expand and complete a ~~diverse~~ dense network of low-stress bicycle facilities that overcome existing barriers and improve connectivity between and among residential neighborhoods, retail and commercial districts, recreation centers and parks, employment sites, transit stations, and activity centers in neighboring jurisdictions.

Policy 1 – Complete and continuously improve, a reliable, efficient bicycle network that connects all of Arlington County the Bikeway Network. Focus on Prioritize projects that overcome barriers, and complete network connections. Enhance bikeway information and way-finding.

Implementation Actions

- Implement currently funded projects ~~listed in Appendix B, Table B-1,~~ as soon as practical.
- Fund and Implement planned projects ~~listed in Appendix B, Tables B-2, B-3, and B-4~~ and also trail improvements identified in other adopted County planning documents. ~~the Four Mile Run Restoration plan. Initial emphasis should be on implementation of the identified “short-term” projects.~~ Establish a funding stream to regularly implement projects. ~~Regularly implement projects in Table B-3 as opportunities arise.~~
- Add grade-separated bicycle and pedestrian crossings of major highways where feasible, improve existing crossings of major highways.
- ~~and develop~~ Develop improved alternatives for crossing or circumnavigating large federal institutions and properties, such as Fort Myer, the Pentagon complex, National Foreign Affairs Training Center and Arlington National Cemetery.
- Work with regional partners to ensure that bikeways are provided on and across Virginia Department of Transportation (VDOT) and National Park Service (NPS)-owned arterial roadways, interstate and parkway corridors, as part of all projects to improve, or reconstruct these roadways. Increase engagement with Federal landowners and regional neighbors to improve interjurisdictional bicycle facilities including access to all bridges across the Potomac River.
- Coordinate with the National Park Service to complete implementation of remaining trail-improvement projects identified in the NPS’s ~~1990 Paved Recreational~~ 2016 Paved Trails Plan.
- ~~Evaluate,~~ Expand and upgrade the signed bike route system, and improve wayfinding information for bicyclists provided for bicyclists provided both on-site and electronically.
- Develop connector trails or routes that link low-volume streets and establish corridors.
- Plan for new trail opportunities by identifying desired land acquisitions or easements needed for trail extensions or connections.
- Provide additional multiuse trails where significant community demand is expected. Look to adopted plans such as the Public Open Spaces, corridor, and sector for guidance.

Policy 2- Provide a network of low-stress bicycling routes that connect residential areas, commercial centers, transit stations, schools and County facilities across Arlington.

Implementation Actions

- Plan and construct new shared-use trails and trail connections in conjunction with new development. Focus on trails, bridges, and overpasses that link with other sections of the bikeway network, thereby enhancing the connectivity of the entire network and with regional bikeways in adjacent jurisdictions.
- Improve the safety and comfort of bicycling on existing north-south routes, and identify opportunities to provide additional low-stress corridors for north-south bicycle travel.
- Improve the connectivity of low-stress routes to public facilities such as schools and community centers.
- Utilize established project prioritization criteria for the purposes of funding applications and staff support.

Policy 2-3 – Provide high-quality bicycling facilities as part of all street improvement projects. Use marked bicycle lanes on arterial streets, and enhance with painted buffers or physical separation where feasible and applicable.

Implementation Actions

- ~~Develop~~ Expand the bikeway network by installing proposed protected, buffered and marked bike lanes, signed bike routes, bicycle boulevards and other bicycle facilities on arterial roadways and neighborhood principal roadways in conjunction with street/bridge improvements or as independent bicycle projects.
- Provide bikeways on new or existing streets in conjunction with major new development or redevelopment activities in Pentagon City, Crystal City, the Potomac Yard, Columbia Pike, ~~North and South Tracts~~, Rosslyn and other areas.
- As appropriate, pilot innovative facility designs (see Appendix A for a description of these measures) including – ~~shared lane pavement markings (sharrows)~~, protected bicycle lanes, mode separation on trails, colored bicycle lanes, bicycle boulevards, bicycle box markings, and bicycle-specific traffic signal heads.
- Improve bicycle access to shopping districts, employment centers, and activity centers in nearby neighboring jurisdictions including Georgetown, Foggy Bottom, National Mall and Southwest Waterfront in D.C.; Potomac Yard in Alexandria; Falls Church City; and Bailey's Crossroads and Seven Corners in Fairfax County.
- New and renovated shared-use trails and ~~bike lanes~~ on-street facilities should be designed and constructed in accordance with the American Association of State Highway

and Transportation Officials (AASHTO) and National Association of City Transportation Officials (NACTO) guidelines.

- Incorporate innovate street and bikeway designs, consider applications and research from across the USA and world.
- Allow for design flexibility including pilot installations and trails of “tactical urbanism” applications.
- Ensure that adequate attention, including the use of traffic signals, beacons, markings as appropriate, is given towards getting bicyclists across challenging intersections.
- Implement traffic calming and other traffic speed management as needed to provide for safer sharing of roads amongst bicyclists and motorists.
- Review existing arterial street cross-sections and look for opportunities, through restriping or reconstruction, to reallocate street space to enhance bicycling safety and access.
- Consider addition of contra-flow bicycle facilities to one-way streets, where safe and appropriate.

Goal B. Increase the Number of Bicycle Trips

Make using a bicycle for transportation, at least occasionally, a normal and accepted travel option for more than 50 percent of the Arlington residential population. When a large-enough portion of a community participates in an activity, it spawns a culture whereby an activity previously considered “fringe” becomes embraced by the mainstream of the community. Currently Arlington has ~~the beginning of a~~ an emerging bicycle culture, with a reported ~~38~~ 40 percent of the population bicycling at least occasionally. Two key strategies are attaining a higher bike-to-school rate among Arlington County students; and increasing use of the bicycle for short trips within Arlington, such as access to transit and non-work related travel needs.

Policy ~~3~~ 4- ~~Create a community culture that embraces~~ Establish bicycle use as a mainstream travel mode. Raise visibility and participation of bicycling in Arlington through events, prominent facilities and encouragement activities.

Implementation Actions

- Expand the encouragement program of Bike-Arlington, including map publication, Bike-to-Work Day, ~~the Community Bike Ride organized group rides~~, Car Free Day, valet bicycle parking at events, ~~learn to ride classes~~ and route assistance. Bikeway maps, program brochures, and safety education materials should be distributed widely and include guidance for safe and courteous use of shared-use paths and streets especially those facility types that ~~are~~ may be relatively new to the public.
- Continue to promote bicycling as a part of the County’s Transportation Demand (TDM) activities aimed at businesses, employees, and residents.

- Undertake regular surveys or focus groups to determine what actions might encourage greater bicycle use. Identify new marketing approaches to reach populations that are not regular bicyclists through the provision of Bicycle Program information and encouragement messages.
- Promote bicycling as an activity that will improve citizen health and fitness and provide convenient recreational opportunities. The County should support a variety of programs to encourage bicycling for transportation, fitness, and ~~fun~~-recreation which may include:
 - Conduct bicycle fitness and training programs by the County and schools and encourage similar programs by bike shops, bicycle advocacy organizations and bicycle clubs.
 - Support additional periodic bicycling races and/or mass-ride days.
 - ~~Establish~~ Issue bicycling recognition awards and incentives – e.g., awards honoring citizens who bicycle to work; awards for businesses and citizens who help make Arlington a better place for bicycling; awards for exemplary bicycling support in schools, businesses, and youth organizations.
 - Organize or encourage regular community-based bike rides that appeal to less-experienced bicyclists.
 - Work with area colleges and universities to develop bicycling incentive programs for their commuting ~~staff and~~ students.
 - Evaluate the feasibility of constructing a velodrome (a track for bicycle racing) on County property or in conjunction with a private redevelopment project.
- Incorporate information about Arlington’s bicycle registration program in County publications.
- Undertake measures recommended for achieving Gold Level Bicycle Friendly Community status, an honor awarded by the League of American Bicyclists for communities with exemplary bicycle programs and commuting usage of bicycles.
- Enhance consideration of and outreach to those bicyclists who are traditionally underrepresented in County planning and programs. Such outreach should target persons of lower incomes, recent immigrants and non-residents who pass through Arlington.
- Include outreach to child cyclists and parents through school-based bicycle safety and encouragement programs.
- Provide outreach, including training classes, for the less-confident cyclists.
- Continue support for the BikeArlington programs for community outreach, education and encouragement.
- Clarify where electric-bikes can legally ride and encourage their use in appropriate locations, particularly for those persons who may need physical assistance when bicycling.
- Seek to achieve specific goals for bicycle use by Arlington residents and local workers including: travel to work, travel to school and non-work/non-school transportation.

- Request County Police and communications staff work together to address reducing bike theft.

Policy 4.5 – Require the provision of appropriate facilities to support bicycling such as showers, lockers and bicycle parking as part of all new property developments.

Implementation Actions

- ~~Refine~~ Apply bicycle parking standards per ~~detailed recommendations in Appendix D~~ per established site plan conditions and design standards and specifications. Periodically review the bicycle parking requirements for new developments, and update as needed.
- Assist the managers/owners of retail, office and multifamily residential properties in selecting the appropriate locations and equipment needed to provide high-quality bicycle parking at existing buildings and complexes.
- Ensure that the new parking and shower facilities required in site plan conditions for developments meet minimum standards for quality and location.
- Explore whether the County’s zoning ordinance can be amended to require all commercial and multifamily residential buildings to provide convenient and secure bicycle parking.
- Review existing site plan bicycle parking conditions and adjust as needed.
- Implement measures to achieve bicycle parking upgrades in by-right and other existing private properties.
- Provide bicycle parking in buildings and on-street that can accommodate cargo bikes.
- Provide more bicycle maintenance stands and maintenance programs in lower-income areas.
- Encourage employers to provide their staff who bike to work to receive cash compensation in lieu of subsidized motor vehicle parking at employment sites.

~~Policy 5 – Annually collect bicycling data on County streets and trails.~~

Goal C. Improve the Safety and Comfort of Bicyclists

Change the public image of bicycle transportation in Arlington from one of being a potentially unsafe travel mode to one that is safe, secure, and easy to use. This will include improving actual bicycle safety, as indicated by bicycle crash rates and injury severity, as well as the public’s perception of bicycle safety and security. Consider persons of all ages, abilities and backgrounds when developing bicycle facilities and information.

Policy 6 – Enhance the safety of bicycling in Arlington by addressing unsafe bicyclist and motorist behaviors. Increase enforcement of traffic law enforcement pertaining to bicycle safety, placing priority on those violations that cause the most collisions and injuries.

Implementation Actions

- Conduct bicycle safety and maintenance courses through the Arlington Adult Education and BikeArlington programs, such as PAL, and encourage community colleges, bicycle organizations, fitness clubs, and other educational institutions to initiate safety instruction. Consider providing financial assistance to institutions or to students as an initiative to encourage participation.
- Produce Spanish-language and multilingual bicycle safety education literature and media campaigns and continue to participate in the Washington region’s multi-lingual Street Smart safety campaign.
- Promote proper shared-use trail behavior through signs, trailside displays, brochures, video education programs, and recreation program classes.
- Coordinate with local law enforcement officials to implement bicycle safety enforcement programs directed towards bicyclist and motorists who commit traffic violations including targeted efforts at locations with regular bicycle/motor vehicle or bicycle/pedestrian conflicts.
- Continue to conduct safety outreach programs such as headlight and helmet distributions that reach young bicyclists and other persons of limited incomes.
- Offer training to continuously upgrade planning, engineering, law enforcement and maintenance staffs’ knowledge of best practices to improve cyclist safety.
- Initiate physical improvements to streets and bikeways and law enforcement efforts, as appropriate, to address identified bicycling safety concerns.
- Regularly review bicyclist crash reports to identify locations and behaviors that should receive engineering, enforcement or education interventions.
- Encourage greater use of bicycles by local police as part of routine and special patrols, including on multi-use trails.
- Utilize public awareness campaigns, law enforcement and physical barriers where applicable, to keep cars from obstructing bicycle lanes.
- Develop a more integrated County approach to bicycling and travel safety.
- Coordinate bicycle safety efforts as part of more comprehensive County “Vision Zero” program.
- Offer training to continuously upgrade planning, engineering, law enforcement and maintenance staffs’ knowledge of best practices for bicyclist safety.
- Utilize public awareness campaigns, law enforcement and physical barriers where applicable to keep cars from obstructing bicycle lanes and from opening car doors in the path of oncoming bicyclists.

Policy 7— Conduct an ongoing safe bicycle routes to school program including travel safety education programs for children and adults.

Implementation Actions

- Support an ongoing Safe Routes to School program that includes Education, Enforcement, Engineering and Evaluation interventions. This program should be developed in conjunction with the Arlington Police Department and Arlington County Schools, including administrators, teachers, parents and students. ~~Over time~~ Include all public and private schools in Arlington.
- Coordinate with Arlington Public Schools to provide Arlington elementary and middle school students training in pedestrian and bicycle operations, **etiquette** and safety, and continue offering bicycle and pedestrian training in high school physical education program.
- Designate recommended bicycling routes to school. Criteria for ‘safe’ routes should be established jointly among the staff of the Arlington Public Schools, Transportation, and Police. Continue to make necessary engineering improvements to the public infrastructure to increase the number, and distribution of routes that can be recommended for bicycling to school.
- Work with Arlington Public Schools to conduct County-wide school transportation surveys on select days and develop multimodal travel profiles of student, teacher, and staff trips to and from school.
- Develop Countywide and school-based implementation plans for Safe Routes to Schools programs.
- **Expand bicycle safety education in schools including as part of physical education and driver training.**

Goal D. Integrate Bicycling in a Sustainable and Equitable Transportation System

Continue to integrate bicycling with transit, walking, taxicab and high-occupancy vehicle (HOV) travel modes to enable more direct integration. **Undertake measures to enable residents of all backgrounds to have convenient access to the bicycling transportation network.**

Policy 98 - Provide convenient, covered and secure bicycle parking at transit stations, schools, public facilities and commercial centers.

Implementation Actions

- Coordinate with WMATA and private property owners to increase **the quantity and quality of** bicycle parking at **all** Metrorail stations, initiate new bicycle/transit integration services, and manage existing services. ~~The quality and quantity of bicycle parking should be upgraded at Metrorail stations, especially Rosslyn, Crystal City, Pentagon City, Ballston MU, and Clarendon.~~ Provide sufficient amounts of free parking that offer a high level of security and weather protection.
- Construct **bicycle stations indoor, secure bicycle parking** at a minimum of one of the following Metro stations – Ballston MU, Rosslyn, East Falls Church and Pentagon City.

- Ensure that new ~~streetcar and~~ commuter rail cars can accommodate the transport of bicycles.
- Assess the market for integration of bicycle transportation with carpools, vanpools, taxis, car-sharing programs, and commuter bus and commuter rail services.
- Improve the security of bicycle parking at Metrorail stations including greater provision of bicycle lockers, monitored bicycle stations and enhanced surveillance.
- Increase the supply of bicycle parking at schools to meet established per-student and per-staff ratios. Provide secure parking for staff and locations for parent/child bike drop-off.
- Work with property-owners to enhance the quality and quantity of bike parking in commercial centers. Undertake installations within streetscape – targeting those locations with little existing secure parking. Require new/better parking on private property as part of development approval and incentivize improvements at other times.
- Provide opportunities for e-bike charging at commercial, multi-family and public facilities.
- Enhance integration of bicycles with transit operations.
- Regularly assess the availability of secure, bicycle parking at all County facilities and significant park and recreation sites. Upgrade bicycle parking quality and quantity as part of regular facility/site improvements.

Policy 6.9– Expand the bike-sharing system to each area of Arlington and coordinate with regional partners to increase the system coverage. ~~Implement a bike-sharing program in the transit corridors and other densely developed areas.~~

Implementation Actions

- ~~Initiate a bike-sharing program. Coordinate with any programs in adjacent jurisdictions.~~
- Support privately provided loaner bicycle programs such as by businesses for their employees and hotels for their guests.
- Reduce barriers to use of Capital Bikeshare by lower-income residents.
- Site new and relocated bike share stations to attract more system users and improve non-motorized access to County facilities and transit services.
- Consider how a GPS based, dock-less bike sharing system could be integrated with or complement the existing Capital Bikeshare system and other transportation services.
- Promote bike sharing as a preferred travel mode for the first and last mile trips to and from regional transit services.

Goal E. Properly Manage and Maintain the Bikeway System

Manage and maintain the network of bikeways (including the street system) and associated infrastructure and services to provide sufficient bicycle travel capacity, an attractive level of service, functional reliability, safety, and security.

Policy 8 10 – Manage the trails for safety with increased use. Regularly collect data including daily counts and reported crashes. Undertake facility improvement projects to address overcrowding and user conflicts on trails and develop instructional materials to encourage safer user practices.

Implementation Actions

- Develop methods of bicycle-use data collection **on County streets and trails**, establish a baseline, and continue regular measurement to monitor usage. Establish locations where regular bicycle counts are made and volumes are compared over time to determine changes in usage.
- **Operate trail and bikeway data collection system in an efficient, sustainable and comprehensive manner. Continue to provide open access to collected data.**
- **Conduct periodic travel surveys that include bicycle use questions.**
- **Utilize bicycle count and crash data in project prioritization, identification of bicycle facility needs, and other decisions regarding the transportation network.**
- **Utilize bicycle count data to develop methods for estimating future bicycle use.**
- Expand ~~public outreach methods of the e-mail bicycle information/alert program~~ to ensure that information alerts ~~address the entire~~ widely reach Arlington and regional bicycling networks, ~~and incorporate additional communication methods, such as radio and television traffic reports, traffic alert Web sites, and/or other technologies.~~
- Continue to operate and expand promotion of the County spot-improvement request system that allows individuals to report maintenance problems in writing, over the phone, via e-mail, and by other methods.
- Adopt the maintenance program and practices in ~~Appendix E~~ TBD.
- Incorporate County trail repaving/repair into a regular maintenance cycle similar to that used for County streets including periodic pavement quality assessments. **Address maintenance for all trails across private property that have public access easements.**
- Prioritize trail widening and trail/roadway intersection projects, especially in those areas where multiple crashes or ~~near-crashes~~ frequent user conflicts have been documented.
- Undertake safety evaluations of street/trail intersections. Identify how safety might be improved through traffic signals, signage, markings, traffic calming, tunnel/overpasses, or other measures.
- Implement measures such as new trail entry points and GPS Coordinates to give emergency personnel and vehicles better access to the trail system.
- Protect the trails and **significant** buffer areas against encroachments from adjacent roadways and new development.
- Promote volunteer maintenance and enhancements to trails including establishment of a “share the trail” program.
- Conduct regular patrolling of trails by Police, Park Rangers and volunteers particularly during early morning and evening hours.
- **Review trail width standards – some wider for heavy use, some narrower for light use**

- Undertake educational campaigns both on the trails and through various media that emphasize proper behavior and etiquette by all trail users.
- Improve trail user security and safety through installation of measures such as trail lighting, convex mirrors and selected landscaping cutting or removal that increase user and site visibility.
- Integrate bicycle access and use in park design and recreational programming.
- Expand the bikeway network wayfinding signage system. Implement trail identification signs, markers or art features at key trail entry points.
- Establish guidance as to when and where it is appropriate to have night-time lighting on trails.

Policy 11 – Implement measures to maintain safe and convenient bicycle travel during/after inclement weather and with street and trail construction.

Implementation Actions

- Develop Maintenance of Travel (MOT) plans that maintain safe, continuous bicycling routes as part of all plans for significant construction in the public right-of-way. Vigorously enforce MOT requirements throughout the duration of construction projects.
- Designate high-usage, trails as transportation corridors that require snow clearance and other regular maintenance.
- Enhance trail and bike lane snow/ice/debris clearance practices to minimize the amount of time when such bikeways are not usable.

Policy 12 - Design trail corridors to be environmentally sustainable with reduced impervious surface area, additional shade and increased planting opportunities.

- The design of new or significantly widened trails should go through Arlington’s environmental assessment process early in the design stage.
- Minimize adverse impacts from paved trails upon local watercourses. As appropriate, utilize permeable materials for trail surfaces.
- Adjust County design practices to allow for increased planting of native trees, in appropriate locations, within trail corridors.

Performance Measures:

1. Use the list of projects in Appendix B TBD to monitor progress on the completion of the planned bicycle network. Target the completion of an average of five projects per year.

2. Track the installation of new bicycle racks available for use by the public. Seek to install 250 new racks (500 parking spaces) over the next 10 years.
3. Use data collected in trip diaries and at ~~count stations~~/regular locations to measure progress in achieving greater bicycle use. ~~In the Year 2008~~ Establish baseline bicycle usage rates for transportation and recreation. In successive years achieve greater reported bicycle usage than in the prior years. By the Year 2030 achieve a reported 50% percent of the population bicycling for transportation at least occasionally, with 20 percent using a bicycle frequently and 10 percent regularly.
- ~~4. Use the Year 2010 U.S. Census Journey to Work data to measure commuting travel mode. Seek to double the percentage of bicycle commuting reported in the Year 2000 Census.~~
5. Track the annual ~~allocation of resources, such as amounts of money spent on encouragement and marketing programs/events, as well as~~ number of bicycle ~~encouragement and marketing programs/events as well as the~~ numbers of participants in such programs and events.
6. Achieve the League of American Bicyclists' gold level *Bicycle Friendly City* status by the Year 20~~11~~ 19.
7. Continue to collect and analyze bicycle crash data along with parallel bicycle usage data to ~~determine estimate~~ crash rates relative to exposure and total population. Regularly collect perception of safety data as part of ~~a public surveys. opinion survey conducted in association with the trip diary.~~
8. Track annual participation in bicycle safety education programs conducted by Arlington County government and schools.
9. Track the percentages of trail and bicycle lane systems that are repaved or remarked each year.
10. Utilize the trip diary, ~~or other outreach methods~~, to assess general public and bicycle-user opinion on maintenance and management of the bikeways system.
11. Track inter-modal integration in terms of percent of buses equipped to carry bicycles, amount of high-security bike parking provided at transit stations, and number of new bicycle-accommodating services initiated.
12. Track usage of bike-on-bus, bike-on-rail services and bike parking at Metrorail stations. Track numbers of customers served at bicycle stations and through bike-sharing programs.

V. Network and Program Implementation Procedures

Prioritizing Proposed Facility Improvements

~~Appendix B {TBD in later version}~~ provides lists of planned projects with locations and project descriptions. Existing and planned facilities are depicted in the MTP Map document. The entire planned bikeway network is shown in Figure ~~A-1 {TBD in later version}~~ of this document. ~~The Arlington Bicycle Advisory Committee and the BikeArlington staff categorized all the Planned projects as being either near, mid, or long term based upon their readiness for implementation and assessed need. The near term projects are also rated as being either first (1) or second (2) priority.~~ Prioritizing projects remains a dynamic process that will evolve over time as the MTP is implemented.

The Prioritization Process and Criteria

Bikeway project priorities are periodically reevaluated in conjunction with funding opportunities, such as the Arlington CIP. Prioritization takes place through a formal process that involves Bicycle Advisory Committee members, BikeArlington staff, and representatives of other agencies as appropriate. The prioritization criteria in the text box below are to be considered in ~~project scoring and ranking determinations regarding resource allocation and timing~~. While these criteria are used to develop project priorities, public input is also considered in finalizing priorities.

Project Prioritization Criteria

- Importance to bikeway network connectivity.
- Safety needs and implications.
- Estimated demand for usage.
- ~~Potential to relieve user congestion and/or conflicts on multi-use trails.~~
- Potential to attract new bicyclists.
- Community support.
- Cost relative to capital budget ~~and availability of non-County funding~~.
- Ease of implementation, including neighborhood, environmental clearance, and need for additional right-of-way.
- Availability, ~~and~~ quality, ~~convenience and distance of~~ existing alternative routes/facilities.
- Opportunity to achieve cost savings or easier implementation through combination with another project.

Reporting priorities to neighboring jurisdictions, State and regional transportation planning agencies can allow planned projects to take advantage of proximate roadway work by other area agencies.

Implementation

The BikeArlington program is responsible for implementing ~~many of~~ the policies and strategies in this document to ~~help~~ ensure that bicycling accommodations and considerations are

appropriately integrated into land development and regional transportation plans. The program also manages the design and construction of bicycling improvements undertaken by the County and works with the agencies responsible for projects not controlled directly by the County. Coordination amongst County agencies, especially agencies such as Parks ~~and~~; Recreation, ~~and~~ Cultural Resources (PRCR-DPR); Police; Community Planning, Housing and Development (CPHD); and Arlington Public Schools (APS) is essential. For example, PRCR DPR maintains Arlington's trails and is involved in bicycle promotion and recreation. The Police Department is responsible for traffic law enforcement and crash reporting. CPHD directs neighborhood and sector planning, zoning, and development review. APS is responsible for guiding Safe Routes to School initiatives, providing safety education, and addressing school transportation issues. Coordination with neighborhood-based and business associations is also important for successful project implementation.

Staff

As of 2008 17, the County's Division of Transportation applies the equivalent of ~~one to one and a half~~ three full-time employees for staff to implement BikeArlington activities. This work includes developing and managing projects, encouraging bicycling, and educating people about bicycling. Additionally, other staff members work on projects and activities that are bicycle-related, such as: 1) managing multimodal projects that include bicycle facilities and elements; 2) conducting promotional activities related to bicycling; and 3) working on safety, maintenance, traffic operations, and other multimodal transportation activities. Staffing is required to develop the large projects that enhance the bikeway network, as well as review all street improvement projects, increase the amount and quality of bicycle parking, enable bicycle safety education efforts, collect data such as usage and crashes and initiate the many encouragement activities that build the bicycle culture. The pace of project implementation will largely be governed by the staff and financial resources available to the program. Significant increases in the annual number of projects implemented will require additional staff resources. The County benefits from volunteer assistance with: advisory committees, event staffing, bike counts, facility inspections, educational efforts, and other activities.

Project Implementation Mechanisms

Bicycle facility projects will continue to be implemented in a variety of ways. Many will be done as opportunities arise, such as street resurfacing or rehabilitation projects, while others will be implemented as independent bicycle improvements. Some projects may be developed for both bicyclists and pedestrians and as part of "Complete Street" efforts. Bicycle accommodations and considerations are routinely considered in the planning and scoping phases of new projects in Arlington County. Although providing continuous bikeways is preferred, to avoid missed opportunities, planned facilities may be implemented in a piece-meal manner.

Providing high-quality bicycle facilities is a priority when considering improvements to the streets in the bikeway network. However, some streets in this network are also significant for other modes' networks. In situations where limited right-of-way exists to adequately accommodate the highest-quality facility for each user group, the priorities of each mode will be considered on a case-by-case basis and balanced as much as possible. This balancing will consider the overall MTP

goals and the need to complete **and enhance** the bikeway network ~~for certain modes~~. Typically bike lanes and shared-use-lanes “sharrows” ~~are~~ **have been** created by reallocating roadway space from overly-wide travel lanes. Alternatively, on-street bicycle improvements, **such as protected or buffered bicycle lanes**, may be provided **or enhanced** by reducing the number of travel or parking lanes. Impacts upon traffic flow, safety, **accessibility** and community welfare are all considered in deciding whether existing ~~lane~~-roadway area ~~can~~ **should** be reallocated **to non-motorized travel modes**.

Regional Coordination

Many of the arterial roads within Arlington are under Federal or State management and are not directly subject to County policy. As a result, many bicycle projects will be implemented by or in conjunction with other agencies. In addition, large areas of Arlington, and several key travel routes, are under the control of Federal agencies such as the Department of Defense. It is critical that Arlington staff continue to coordinate closely with regional, state, and federal agencies to ensure that projects undertaken by these agencies contribute to **and not hinder** the completion of the Arlington bikeway network. Arlington staff will also work closely with neighboring jurisdictions on bicycling-related improvements within those jurisdictions that are of particular interest to Arlingtonians.

Funding

In both the areas of capital improvements and maintenance, an adequate amount of funding needs to be available to ensure regular progress toward achieving the bicycle objectives of the MTP. The County works to identify new sources of funding to implement bicycle-related projects and programs and seeks to maximize the amount of Federal, State and private funding that can be leveraged by local dollars. Funding decisions will be made by the Arlington County Board as part of the Capital Improvement Program (CIP) and the annual budget processes.