IMPLEMENTING THE VISION

Developing a plan for a world-class bicycling community is the starting point. Taking the vision of the Bicycle Master Plan to reality will require a transformation in how Montgomery County incorporates bicycling into all aspects of its decision-making. The five main components of the implementation strategy are to:

- 1. Encourage a strong bicycling community.
- 2. Establish a task force to oversee implementation of the Bicycle Master Plan.
- 3. Develop small area infrastructure plans that serve as a bridge between the master plan and its implementation in areas of the county with significant development potential.
- 4. Upgrade design standards to reflect best practices.
- 5. Update mechanisms for implementation, bringing together public and private entities to create a high-quality bicycling network.
- 6. Prioritize the recommendations of the Bicycle Master Plan.

OUTREACH

ENCOURAGING A STRONG BICYCLING COMMUNITY

Creating a world-class bicycling community requires more than building a bicycling network. The network needs to be promoted and supported by a vibrant bicycling culture. A world-class bicycle plan reaches beyond infrastructure to address programmatic elements and foster a culture of bicycling.

Montgomery County government can help by establishing a BikeMontgomery Outreach Program, described on page 99 of this plan. Indicators of a healthy bicycling culture can include high profile public events, popular and festive group rides, places with a reputation as a bicycling destinations or simply a common acceptance among most people that bicycling is a normal, practical and useful mode of transportation.



DEFINING THE VISION

OUTREACH

The Washington Area Bicyclist Association's Celebrate the Silver Spring Circle! in 2017 was supported in part by the Montgomery County Planning Department and Department of Transportation.

ESTABLISHING A BICYCLE MASTER PLAN IMPLEMENTATION TASK FORCE

Upon approval of the Bicycle Master Plan, the County Executive will establish a Bicycle Master Plan Implementation Task Force to guide implementation of the recommendations in the plan. This staff-level task force will include representatives of the Montgomery County Department of Transportation (Director's Office, Traffic Engineering, Transportation Engineering), Maryland State Highway Administration, Planning Department (Development Review, Bicycle Planning), Department of Parks, Department of General Services, Department of Permitting Services and CountyStat. This task force will meet regularly to discuss ways to encourage bicycling and facilitate implementation of the Bicycle Master Plan. It will be jointly chaired by staff of the Montgomery County Department of Transportation and Planning Department, and will report annually to the Montgomery County Council about the progress of the plan.

SMALL AREA INFRASTRUCTURE PLANS

The Bicycle Master Plan offers a high-level vision for a network of low-stress bikeways and bicycle storage facilities that will make Montgomery County a premier location for bicycle-based transportation and recreation. Although this plan provides many recommendations intended to accomplish this vision, it recognizes that a countywide planning effort cannot anticipate the site-specific complexities associated with each recommendation, including potential impacts on private property, traffic flow and environmental resources.

To facilitate the implementation of this plan's recommendations, the Montgomery County Department of Transportation and Montgomery County Planning Department will collaborate to create a series of small area infrastructure plans for areas of the county with high development potential. These communities include, but are not limited to, downtown Bethesda, downtown Silver Spring, Germantown, the Life Sciences Center, Rock Spring, Twinbrook, Wheaton central business district, White Flint and White Flint 2. It is anticipated that the cost of these studies will be recouped through greater construction of the bikeway network by developers as the county is able to provide developers with greater direction in designing and building bikeways.

The small area infrastructure plans will consider previous planning efforts, including the Bicycle Pedestrian Priority Area studies completed by the Montgomery County Department of Transportation and may incorporate recommendations from those studies.

The Montgomery County Planning Board may approve additional locations as appropriate for the development of small area infrastructure plans. Such plans will provide interim designs, where appropriate, and permanent designs for the bicycle facilities recommended in the Bicycle Master Plan. An interim design option will include a bikeway network that is likely to be implemented through public or private efforts, within the next five years. The permanent design option will outline what is possible during a longer period, when facility planning projects are implemented and developments are constructed.

In creating small area infrastructure plans for these areas, Montgomery County Department of Transportation and Planning Department staff will consider site-specific challenges associated with implementing the Bicycle Master Plan's recommendations and settle on preferred design options. This process will be particularly helpful in areas recommended for separated bike lanes, which can be designed in many different configurations. While a small area sketch plan is not intended to provide the only acceptable option for meeting the recommendations of the larger plan, it will offer both public and private developers a starting point for designing projects in conformance with those recommendations.

MONITORING THE VISION

The Bicycle Master Plan envisions all small area infrastructure plans completed within three years of the plan's adoption by the Maryland-National Capital Park and Planning Commission. Each small area sketch plan must be approved by the Montgomery County Planning Board before it is considered complete.

BIKEWAY DESIGN STANDARDS

Bicycle facilities must be high-quality to attract bicyclists of all ages and bicycling abilities. For example, bike lanes designed without gutter seams, separated bikeways wide enough to accommodate expected bicycle volumes and off-street bikeways constructed with materials that will not degrade quickly as they age, are all critical to ensuring the development of a world-class bicycling network. To achieve the vision of the Bicycle Master Plan, Montgomery County will continue to update its Context-Sensitive Road Design Standards to ensure that it is delivering a high-quality product.

Trails and Sidepaths

Trails and sidepaths will continue to be the backbone of a low-stress bicycling network in most areas of Montgomery County, due to existing investments and compatibility with surrounding land uses. Unfortunately, there is a legacy of poor design of trails and sidepaths throughout the United States and these bikeways often do not create a high-quality bicycling environment. To improve the quality of new and existing trails and sidepaths, Montgomery County must revise its design standards to accommodate:

- **Design Speed:** Trails and sidepaths will be designed to enable a design speed of 12 mph in higher activity areas and 20 mph in lower areas (see page 64 for a description of these areas). Note that design speed is influenced by the pavement quality and bikeway curvature, among other conditions, and is not an endorsement of bicycling 20 mph in crowded locations.
- Bikeway Width: A bicycling network that allows people of all ages and bicycling abilities to use trails and sidepaths safely and conveniently requires constructing bikeways that are sufficiently wide to enable side-by-side bicycling and passing. Trails and sidepaths will be a minimum of 10 feet wide, although 8 feet is acceptable in areas with an environmental or historic constraint. A width of 11 feet enables two people to bicycle side-by-side while being passed by another bicyclist. A 14-foot-wide path is recommended on high volume trails and sidepaths. Trails of between 19 and 23 feet wide are recommended on the Breezeway Network and where a high level of existing or anticipated walking and bicycling makes it desirable to separate walking and bicycling. See Appendix B for additional design details.
- Surface Quality: Sidepaths in Montgomery County are plagued by degrading pavement, including pavement cracking and buckling due to the growth of tree roots. Sidepaths will be designed to withstand such root growth and vehicle loading since maintenance trucks will use them on occasion. These requirements may result in different designs for subgrade and pavement thicknesses based on soil conditions. According to the American Association of State Highway and Transportation Officials (AASHTO) Guide for the Development of Bicycle Facilities, shared use paths, at a minimum, should

DEFINING THE VISION

MONITORING THE VISION

have a total pavement depth of 6 inches, including the surface course and the base course (typically an aggregate rock base) placed over a compacted subgrade. There may be other ways to reduce pavement cracking and evolving best practices should always be considered.

- Intersections: The design of sidepaths and trails will consider traffic control or grade separation at all mid-block crossings. Bicyclists (and pedestrians) should not be required to travel an unreasable distance to get to a safe crossing location.
- Driveways: Driveways must be consolidated to the extent possible as part of development approvals and capital projects. On properties where driveways remain, property developers must improve sightlines for all users, reduce the speed of traffic and provide visual cues to motorists to look for pedestrians and bicyclists. Montgomery County will consider greater use of raised crossings along all minor street crossings and high-volume driveways.
- Pedestrian/Bicycle-Scale Lighting: Lighting is essential to provide safe and secure walking and bicycling facilities, and will help increase use of bikeways during the evening, especially during winter months when the sun sets earlier. While bicycle lights help with safety, they are insufficient to create a secure environment and are not typically used by pedestrians who will share these spaces.
- Buffer from Traffic: A minimum 5-foot-wide buffer is needed from vehicular traffic. Wider buffers are appropriate along roads with higher design speeds.
- Obstructions: Sidepaths must be direct and free from obstructions.



Pavement cracking is common on sidepaths

Separated Bike Lanes

Jurisdictions across the United States are using different approaches to implement separated bike lanes. Many are constructing these bikeways as interim / low-cost retrofits of existing rights-of-way using flexible delineator posts and paint, while others are constructing more permanent forms of separation, such as curb-separated bike lanes, that represent a permanent design standard. Although interim separation types can be easier to implement, agencies have raised concerns about their maintenance costs and aesthetics, noting that some of these separation types provide less protection from adjacent automobile traffic than more permanent solutions, which can be more aesthetically pleasing, although they often carry a higher cost.

Interim Separated Bike Lanes

As with many jurisdictions, Montgomery County is focusing its efforts at building a network of separated bike lanes as quickly as possible to provide responsiveness to public demands for improved bicycling and allow ongoing evaluation of new approaches to bikeways. Interim separated bike lanes address separation from traffic using flexible delineator posts, planters, parking stops, concrete barriers or rigid bollards, and are shown on the following pages. These projects substantially improve the comfort of bicycling by reducing traffic stress and make bicycling accessible to a greater segment of the population.

Responding to the strong desire to implement a network of bikeways as quickly as possible, these projects tend to employ interim designs that are low cost and may need to be upgraded over time to incorporate urban design and stormwater management opportunities and to achieve the lowest stress possible. Three features of interim separated bike lanes are discussed below.

Separated Bike Lane Widths

Interim separated bike lanes will have the following widths:

- One-way separated bike lanes: 5 feet at a minimum, exclusive of shy distances.
- Two-way separated bike lanes: 8 feet at a minimum, exclusive of shy distances.

Intersections

While the ultimate objective is to implement protected intersections as part of separated bike lane projects, this will not be feasible with all interim projects. Bike boxes and two-stage turn queue boxes are ways to improve intersections in the interim until full protected intersections can be implemented. Bike lane drops are inappropriate for interim separated bike lanes.

Separation from Traffic

Interim separated bike lanes address separation from traffic using flexible delineator posts, planters, parking stops, concrete barriers or rigid bollards, and are shown on the following pages. These forms of separation help to reduce the stress of bicycling, and can be improved over time as funding becomes available.



Interim separated bike lanes on Nebel Street in White Flint can be upgraded over time by new development or county projects



Paint and flexible delineator posts provide separation from traffic for these bike lanes in Washington, DC. Photo: Toole Design Group

Flexible Delineator Posts

LEVEL OF COMFORT/PROTECTION

- May not offer a high level of comfort to some riders due to lack of continuous separation.
- May be less suitable for young children due to the permeability of the separation.

AFSTHETICS

• Less attractive than some other separation types. Multiple options for post types (color, shape, etc.).

CONSIDERATIONS

- Maintenance/ durability issues. May require closer spacing if parking encroachment is an issue.
- Easily accommodate emergency vehicle access.
- Fewest storm water/ drainage implications.

CAPITAL COSTS - Low, easy to install and remove

OPERATING COSTS - Low to medium (depending on frequency of damage).



Parking stops provide separation from traffic for these bike lanes in Washington, DC.

Parking Stops/ Precast Concrete Surface-Mounted Medians

LEVEL OF COMFORT/PROTECTION

- May not offer a high level of comfort due to limited height.
- Low profile reduces risks of pedal strikes.

AESTHETICS

- Can be less attractive than some other separation types.
- Multiple options (color, pattern, etc.) for parking stop and precast concrete median types.

CONSIDERATIONS

- Require minimal buffer space. Highly durable.
- Can create tripping hazards and access issues when adjacent to on-street parking.
- May need additional vertical objects or on-street parking to increase comfort of bicyclists.
- · Low impact on storm water drainage.

CAPITAL COST - Low to medium

OPERATING COST - Low



Parked cars provide separation from traffic for this bike lane in Silver Spring, MD.

Parked Cars

LEVEL OF COMFORT/PROTECTION

• Moderate comfort due to potential for cars to be parked too close to the bikeway.

AESTHETICS

• Can be less attractive than some other separation types.

CONSIDERATIONS

• Separation from traffic should be at least 3 feet wide.

CAPITAL COST - Low to medium

OPERATING COST - Low



Planters provide separation from traffic for these separated bike lanes in Vancouver, British Columbia, Canada.

Planter Boxes

LEVEL OF COMFORT/PROTECTION

• High comfort due to heft of planters and consistent wall of separation from traffic.

AESTHETICS

Provides enhancement to streetscape with plantings. Multiple options for planter choice (size, color, shape, etc.).

CONSIDERATIONS

- Higher long-term maintenance costs (landscaping) than other types of separation.
- May not be appropriate for higher-speed roadways.
- Additional bike lane width required to provide offset from vertical obstruction.
- Lower impact on drainage if placed with spaces between planter boxes.

CAPITAL COST - Low to medium

OPERATING COST - Medium to high



Concrete barriers provide separation from traffic on this bike lane in Vancouver, British Columbia, Canada.

INTERIM SEPARATION TYPE

Concrete Barriers

LEVEL OF COMFORT/PROTECTION

• High level of protection due to consistent wall and heft of separation.

AESTHETICS

- Lower aesthetic quality, though can be constructed with small planter area on top or decorative inset panels on sides.
- May require a crash cushion at ends.

CONSIDERATIONS

- Potential drainage and maintenance vehicle access issues.
- Incompatible with on-street parking.
- Additional bike lane width required to provide offset from vertical obstruction.
- Lower impact on drainage if placed with spaces between barriers.

CAPITAL COST - Medium

OPERATING COST - Low



Rigid bollards provide separation from traffic for these bike lanes. Photo: People for Bikes

Rigid Bollards

LEVEL OF COMFORT/PROTECTION

- High level of comfort due to very durable nature of bollards.
- Without additional low vertical separation (for example, a curb), may be less suitable for young children.

AESTHETICS

• Can add to aesthetic of streetscape in bollard choice and integrates with existing or desired design.

CONSIDERATIONS

- May not be appropriate on higher speed roadways.
- May require closer spacing if parking encroachment is an issue.
- Low impact on storm water drainage.

CAPITAL COST - Medium

OPERATING COST - Low

Permanent Separated Bike Lanes

Permanent separated bike lanes create bicycling environments that are appropriate for people of all ages and bicycling abilities. They expand the capacity of the bicycling network by implementing wide bike lanes that enable passing and incorporate more aesthetically pleasing treatments and stormwater management.

Separated Bike Lane Widths

Permanent separated bike lanes will have the following widths:

- One-way separated bike lanes: 6.5 feet at a minimum (8.0 ft preferred), exclusive of shy distances.
- Two-way separated bike lanes: 10 feet at aminimum (11 ft preferred), exclusive of shy distances.

Intersections

Permanent separated bike lanes will reduce conflicts at intersections with protected intersections and mitigate the remaining conflicts.

Separation from Traffic

Permanent separation provides a high level of protection and often has greater potential for placemaking, quality aesthetics and integration with stormwater management. Examples of permanent separation include raised medians and raised separated bike lanes at an intermediate level, and are shown on the following pages. Each of these separation types provides an increasingly higher level of comfort for bicycling, separation from traffic and opportunity for improved aesthetics within the streetscape. Permanent separation can reduce maintenance costs associated with temporary separation and improve durability and bicyclists' safety on higher volume roadways.





Raised medians provide separation from traffic for these bike lanes. Photo: Toole Design Grouo

PERMANENT SEPARATION TYPE

Raised Medians

LEVEL OF COMFORT/PROTECTION

• High level of comfort due to durability of median, potentially enhanced with plantings that provide additional height and sense of separation.

AESTHETICS

- With plantings, can add to streetscape aesthetic.
- · Plantings will require additional maintenance.

CONSIDERATIONS

- Passenger unloading and pedestrian pass-through areas needed to accommodate on-street parking.
- Opportunity to incorporate green storm water infrastructure.
- High impact on storm water drainage; must be considered in design.

CAPITAL COST - High

OPERATING COST - Low to high (depending on plantings).



A landscaped buffer will provide separation from traffic on this separated bike lane at an intermediate level between the street and sidewalk in Vancouver, British Columbia, Canada.

PERMANENT SEPARATION TYPE

Raised Lane

LEVEL OF COMFORT/PROTECTION

- High level of comfort due to grade separation from automobiles.
- Adequate separation from pedestrians needed when at sidewalk level to ensure bicyclist and pedestrian comfort.

AESTHETICS

• Choice of pavement types for bike lane, buffers and sidewalk materials can enhance streetscape aesthetic.

CONSIDERATIONS

- Transitions at intersections, driveways and pedestrian crossings require additional consideration.
- Greater flexibility for curb reveal and drainage.
- · May necessitate moving utility locations.

CAPITAL COST - High

OPERATING COST - Low

Phasing Separated Bike Lane Implementation

While Montgomery County should strive to implement permanent separated bike lanes, there are many cases where this will not be feasible in the short-term. Interim separated bike lanes can offer substantial benefits over the status quo.

Interim separated bike lanes will be implemented when:

- Project constraints, such as available right-of-way or funding, do not allow implementation of a permanent design in the short term.
- Interim separation will be upgraded in the future by private development or large-scale capital projects.
- There is a need to test design effectiveness over the short term or to quickly respond to significantly increased bicycle ridership, public demand or other issues.

Permanent separated bike lanes will be implemented when:

- Private developers are required to implement frontage improvements or internal road as part of their projects.
- The bikeway will be along a new or reconstructed road that will be constructed by public agencies or private developers.
- The bikeway will be constructed as part of a larger capital road or bicycle project.

Striped Bikeways

The Montgomery County Department of Transportation and the Maryland State Highway Administration install striped bikeways on roads through repaving projects when a lane diet (narrowing lanes) or road diet (removing lanes) is feasible. The Bicycle Master Plan supports striped bikeways where they are recommended in the bikeways section of this plan and on primary residential streets or other non-commercial streets. Striped bikeways are also recommended where the posted speed limit does not exceed 30 mph, where there are no more than three lanes of traffic, where traffic volumes do not exceed 6,000 vehicles per day and in non-commercial areas.

This plan endorses installing temporary striped bikeways as part of street resurfacing projects, where the striped bikeway is extended to the intersection, because they can reduce traffic stress by narrowing the road and providing a designated space for bicycling. Where striped bikeways are temporarily installed, the space can later be repurposed to install a master-planned recommended bikeway or achieve another county purpose.

IMPLEMENTATION MECHANISM

Montgomery County's bicycling network will be implemented through a number of mechanisms:

- Montgomery Country Capital Improvements Program
- Montgomery County Planning Board's approval of development
- Public facility projects undertaken by the Montgomery County Department of Transportation, Maryland State Highway Administration and other agencies

Implementation Through Capital Improvements Program

One way that bicycle facilities are implemented in Montgomery County is through the capital improvements program. Montgomery County's capital budget provides the spending authority that county agencies need to implement projects. This six-year program for construction projects and improvements is comprehensively amended on even-numbered years and with less substantial adjustments during odd-numbered years.

The capital budget includes funding for several programs that improve bicycling, described in the programs section of this plan. Major funding programs include stand-alone projects, such as construction of new roads that include bikeways, stand-alone bikeway projects added to existing roads and facility planning projects that enable preliminary engineering of projects which include bikeways.

A typical facility planning process should include the components below. The first three components are included in most facility planning studies. This master plan recommends a new, fourth component:

- **1. Review of master plan recommendations:** The starting point for any facility planning study should be to implement the master plan-recommended bikeway along the study corridor.
- 2. Determine if space is sufficient to implement a master-planned bikeway: One of the initial considerations facing designers is whether the master-planned bikeway fits within the existing right-of-way without excessive impacts to the surrounding community. If the master-planned bikeway fits, the project should begin with more detailed design following the master plan recommendation. If the master-planned bikeway does not fit, designers need to consider whether it is feasible to expand the existing right-of-way or repurpose space used within the existing right-of-way to accommodate the master-planned bikeway.
- 3. Expand or repurpose the right-of-way: In determining whether existing space can be repurposed, designers should consider road diets and lane diets. If sufficient space can be repurposed from existing elements in the roadway, the project should begin with more detailed design following the master plan recommendation. If sufficient space within the existing right-of-way cannot be repurposed, additional right-of-way may need to be purchased. If neither option is desirable, designers need to consider interim solutions.
- **4.Interim solutions for bikeways:** Interim solutions should identify a moderate stress bikeway along the corridor and a low-stress bikeway on a parallel route where possible. Over the long-term,

designers should revisit the corridor to determine whether it becomes feasible to implement a low-stress bikeway along the road because additional right-of-way is available, fewer lanes are needed or some other reason.

Extensive public outreach is needed during project implementation as well as early coordination with project stakeholders, such as the Maryland State Highway Administration and Maryland-National Capital Park and Planning Commission.

Facility Planning Process

Facility planning for transportation projects, including bikeways, serves as the transition between the master plan and a stand-alone project within the county's Capital Improvements Program (CIP).

During the first phase of facility planning, the Montgomery County Department of Transportation (MCDOT) performs a rigorous investigation into critical project elements, including purpose and need, usage forecasts, traffic impacts, community impacts, public participation, cost estimates and sources of funding.

Based on these factors, MCDOT determines if the project has the merits to advance to the second phase when 35 percent construction plans are developed. The plans should show the specific alignment and detailed features of the project so property and environmental impacts and costs can be more accurately assessed. MCDOT then submits the project for a "mandatory referral" review by the Montgomery County Planning Board, which provides advisory comments on the project. Public testimony is considering during the mandatory referral hearing.

Once the Planning Board review is completed, the County Council and County Executive hold project-specific public hearings to determine whether the proposed facility has the merits to advance in the capital improvements program as a fully funded stand-alone project and begin final design and construction. Public testimony is considered during these hearings.

Implementation Through Development Approvals

Like many jurisdictions, Montgomery County supplements its capital projects by requiring the construction of bikeways through the development approval process. Developers are required to construct bicycle facilities within and along the frontage of their projects, as required by applicable master plans and local law. This private construction can result in substantial contributions to the bicycling network, such as long segments of on-road bikeways adjacent to larger-scale development projects. Other advantages to requiring developers to implement bicycle network improvements as part of their development projects include:

- 1. Reducing costs for Montgomery County by requiring construction by the private sector.
- 2. Encouraging the construction of bicycle facilities when adjoining properties that have frontage along the same master-plan bikeway redevelop.
- 3. Reducing future impacts to the community resulting from separate construction projects.
- 4. Avoiding the difficulty of constructing a bikeway in the public right-of-way, where a property owner perceives the space to be privately owned.

For smaller development projects, constructing incremental bicycling improvements at the time of development is desirable as long as it does not result in unsafe conditions. In cases where the Planning Department and MCDOT staff determine that the project is unsafe, the developer must pay a *pro rata* share of the proposed bikeway or protected intersections construction costs to an appropriate capital improvements project. To determine the amount of the contribution, the developer must prepare a concept plan (30 percent engineering design / horizontal alignment) for the proposed bikeway or protected intersection for approval by MCDOT on county roads and MDOT / SHA on state roads. The applicant's financial contribution to the future construction of the bikeway or protected intersections can be credited toward the applicable development impact taxes, pursuant to the Montgomery County Code.

In addition, where staff determines that construction of a bikeway or protected intersection at the time of development is not desirable, the developer must facilitate future implementation of the bikeway or protected intersection by dedicating land or establishing other necessary easements to accommodate the future bikeway or protected intersection and ensuring that utilities, stormwater management facilities, streetscape improvements, landscaping and other features do not conflict with the future implementation of the permanent bikeway. For on-road striped bikeways, the developer must also pave shoulders that will be delineated with pavement markings. If the minimum right-of-way recommended in a master plan is insufficient to accommodate the bicycle improvement, additional dedication or easements will be required to implement the bicycle improvement. The small area infrastructure plans, described above, will help facilitate this process and limit conflicts between proposed bicycle facilities and new development.

The Bicycle Master Plan recommends many types of bicycle facilities throughout Montgomery County (see Appendix B). Where the plan recommends the following bikeways within a proposed private development or along a development's frontage on a public-right-of-way, the development must conform to the following standards, as applicable.

Trails

- Construct all trails internal to the project.
- Construct all trails along the project's right-of-way frontage.

Separated Bikeways

- Construct all separated bikeways (separated bike lanes and sidepaths) internal to the project.
- Construct all sidepaths along the project's right-of-way frontage.
- Upgrade all existing, interim separated bike lanes to permanent separated bike lanes, as discussed in the Bikeways Design Standards section of this plan.
- Construct new permanent separated bike lanes along the project's right-of-way frontage where there
 are logical end points for the bikeway, such as intersections, intersecting bikeways, pedestrian connections or other locations to be determined by the Montgomery County Department of Transportation.
- Lay the groundwork for future implementation (see sidebar below) of separated bike lanes along the project's right-of-way frontage where there are not logical end points for the bikeway, as determined by the Montgomery County Planning Board. In this case, the developer must make a financial contribution to make up for the difference in cost between laying the groundwork for future implementation of the bikeway and full implementation of the bikeway. This financial contribution will be used by the Montgomery County Department of Transportation to implement bikeway projects within the vicinity of the right-of-way frontage of the development project.

⁸ The Montgomery County Department of Transportation and the Maryland State Highway Administration make the final decision in the design and implementation of bikeways through the development review process and capital improvements program.

Striped Bikeways

- Construct all bikeways internal to the project.
- Widen pavement to provide space for striped bikeways.
- Construct new striped bikeways along the project's right-of-way frontage where there are logical termini for the bikeway, such as intersections, intersecting bikeways, pedestrian connections or other locations to be determined by the Montgomery County Department of Transportation.
- Lay the groundwork for future implementation (see sidebar below) of striped bikeways along the project's right-of-way frontage where there are not logical termini for the bikeway, as determined by the Montgomery County Department of Transportation.

Bikeable Shoulders

• Construct all bikeable shoulders along the project's right-of-way frontage.

Shared Roads

- Construct all bikeways internal to the project.
- Construct all bikeways along the project's right-of-way frontage in consultation with the Montgomery County Department of Transportation.

Protected Intersections

 Dedicate right-of-way and implement protected intersection improvements at all portions of the intersection on the project's right-of-way frontage where at least one street is recommended to have a sidepath, separated bike lane, buffered bike lane or conventional bike lane.

Laying the Groundwork for Future Implementation of Bikeways

The Montgomery County Planning Department and Department of Transportation may determine that it is not desirable to require a developer to fully implement a master-planned bikeway or protected intersection on the property's right-of-way frontage because there are no logical end points to do so. In this case the developer will be required to enable the future implementation of the bikeway or protected intersection by dedicating land to the future bikeway or establishing easements where the future bikeway or protected intersection will go. In addition, the developer will ensure utilities, streetscape improvements and landscaping do not conflict with the future construction of the bikeway or protected intersection. Utilities and major streetscape elements, such as trees, will be located in such a way as to avoid the need for removal and reconstruction when the bicycle facility is implemented. For striped bikeways, this preparation includes paving shoulders that will be later marked with bike lanes. The prioritized small area infrastructure plans described above will help facilitate this process and limit conflicts between proposed bicycle facilities and new development.

Additional Requirements

A countywide plan such as the Bicycle Master Plan cannot anticipate all opportunities to implement bikeways that might arise. To ensure adequate bicycle facilities throughout the county, all developers must conform to the following standards:

- Developers with projects on non-master planned streets must implement the general bikeway application on page 65.
- When a development project has frontage on a street paralleling a major highway or arterial road and there is a gap in the street grid parallel to the major highway or arterial road, the developer must extend the street grid to the extent possible.
- Developers constructing dead-end streets must link these streets with trails to the extent possible.
- The sidepath and separated bike lane recommendations in this plan often recommend the side of the road where the bikeway is envisioned and whether separated bike lanes are envisioned to be one-way or two-way. For those bikeways that are listed as "Side TBD" in the bikeway table, the side of the road and the bikeway configuration will be determined by the Montgomery County Department of Transportation and Planning Department staff during a small area sketch plan study, a facility planning study or the development review process, whichever comes first.

Implementation Through Public Facility Projects

While the capital improvements program and the development approval process are the major mechanisms for implementing bikeways, other county projects offer the ability to realize these projects. Schools, libraries, recreation centers and other public facilities are important destinations that can benefit from and contribute to bicycling in Montgomery County. While it is preferable that master-planned bikeways are implemented as part of these county projects, at a minimum, the right-of-way for the bikeway must be provided to accommodate future improvements to infrastructure, streetscapes and bike facilities within the dedicated space.

All county public facility projects must ensure that utilities, streetscape improvements and landscaping do not conflict with the future implementation of the bikeway network. As with development approvals, utilities and major streetscape elements, such as trees, must be located in such a way as to avoid the need for removal and reconstruction when a bicycle facility is later implemented.

Public facility projects must also consider how people access and circulate on bicycles within the site. This accommodation not only includes the provision of very low stress bikeways that are appropriate for people of all ages and bicycling abilities, but also secure bicycle storage for people using the public facility.

IMPLEMENTING SEPARATED BIKE LANES IN CONSTRAINED CORRIDORS

In much of Montgomery County, street right-of-way is limited and there are often competing demands on using the available space. For this reason, building the county's planned network of separated bike lanes will require tough choices and trade-offs along the way. Guidance on designing separated bike lanes in constrained corridors is needed because in most cases, limited rights-of-way mean that installing a separated bike lane will require narrowing or reconfiguring an existing element of the streetscape, be it a travel lane, a street buffer or another element. While each element has unique considerations that inform its importance and design along a particular corridor, the interplay between streetscape elements can change the utility and effectiveness of the separated bike lane.

A context-sensitive evaluation of each location is required to determine the priority of streetscape elements without compromising any user's safety or inhibiting the street's function within the multimodal transportation network. Developing general guidance on priority streetscape elements based on the local context of the street under consideration will save county planners time in performing each individual context-sensitive evaluation and help ensure consistent application.

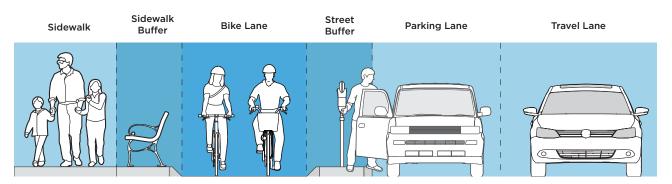
Above all, the following guidance is shaped by the central consideration that the installation of a separated bike lane should not detract from the safety and comfort of those walking. Fortunately, if designed appropriately, separated bike lanes can enhance the walking experience by providing greater separation between bicyclists and pedestrians, and pedestrians and motor vehicles, improving the aesthetic of the overall streetscape (if street trees and beautification are part of the design) and calming traffic (if lane narrowing or curb radii improvements are part of the design).

Designing Separated Bike Lanes In Constrained Corridors

Designing a separated bike lane in a constrained corridor involves reallocating space from one or more streetscape zones and installing a bicycle facility that is appropriate in type and width to the corridor. The following section discusses where the space can be reallocated to make room for the appropriate bicycle facility.

Starting at the building faces and moving toward the street centerline, the zones are as described below.

- **Sidewalk:** The area designated for pedestrian travel.
- Sidewalk Buffer: The area located between the separated bike lane and the sidewalk. Its presence helps to discourage encroachment between bicyclists and pedestrians.
- Separated Bike Lane: The bicyclist operating space located between the street buffer and sidewalk buffer.
- Street Buffer: The area situated between the separated bike lane and motor vehicle traffic. In general, the faster the speed of traffic, the wider the street buffer needs to be in order to create a low-stress bicycling experience.
- Parking Lane: Paved areas adjacent to the street curb where motor vehicles can be stored when not
 in use.
- Travel Lane: Paved area of a street that carries automobile traffic through a corridor.



Zones of a separated bike lane street

Narrowing Travel Lanes: When looking for space to install a separated bike lane, narrowing the vehicular travel lanes should be considered first, regardless of the corridor's context. Montgomery County Code specifies the maximum travel lane widths in urban areas and many streets have lanes that are wider than the standard minimum. Specifically, Section 49-32 of the Montgomery County Code sets the maximum lane width as 10 feet for travel lanes in urban areas, although the outside travel lane should be no wider than 11 feet, including the gutter pan or when adjacent to on-street parking. This legislation is supported by the American Association of State Highway and Transportation Officials (AASHTO) Green Book, which specifies 10-foot travel lanes on roadways with speed limits below 45 mph.

Research indicates that 10-11-foot travel lanes on urban and suburban arterials do not have a negative effect on safety or vehicular capacity. Narrowing roadways has a traffic calming effect that makes traffic conditions safer for all users, including drivers. The width available for a separated bike lane resulting from the lane diet depends on how wide and how many travel lanes currently exist. As an example, on a four-lane road with 12-foot-wide lanes, narrowing the lanes to 10- and 11-foot widths provides 6 feet that could be reallocated for a separated bike lane.

Eliminating On-Street Parking: Depending on parking lane width, removing one on-street parking lane can provide 7 or more feet for separated bike lanes.

Eliminating Travel Lanes: If a road has more travel lanes than necessary based on traffic volume, the lanes can be removed to provide space for separated bike lanes. There are other instances when travel lane removal should be considered due to the safety or operational benefits of fewer lanes.

Narrowing or Eliminating the Sidewalk Buffer: The space separating the sidewalk from the separated bike lane, which may hold landscaping or street furniture, can be minimized or removed to provide space for the bicycle facility.

Narrowing the Street Buffer: In general, the recommended street buffer width is 6 feet. In constrained conditions, street buffers may be narrowed to 2 feet.

Narrowing Separated Bike Lanes to Minimum Widths: While the ideal width for separated bike lanes is a function of expected peak hour use, in constrained circumstances, there are minimum recommended widths. For one-way separated bike lanes adjacent to curbs, lanes should be at least 5 feet wide. A width of 4 feet is allowed for short sections if vertical separation, such as curbs or planters, is not directly adjacent to the bike lane.

For a two-way separated bike lane, a minimum width of 8 feet is recommended. On constrained corridors with steep grades, wider bike lanes may be provided in the uphill roadway direction to enable faster moving bicyclists to pass slower ones. See Appendix B for more information about separated bike lanes widths.

Narrowing the Sidewalk: If the sidewalk is wider than necessary to accommodate current and planned pedestrian demand, it can be narrowed to provide space for a separated bike lane. Minimum sidewalk width in an urban context is 5 feet. As described below, this minimum sidewalk width is almost always the last resort, as bicycle facilities should enhance and not compromise the quality of the pedestrian environment.

⁹ Potts, Ingird B., Douglas W. Harwood, and Karen R. Richard. "Relationship of Lane Width to Safety on Urban and Suburban Arterials." Transportation Research Record, Issues 2023 (2007): 63-82.

Defining Street Types

This section presents four different street types and recommends a hierarchy that can help planners consider where to repurpose space for separated bike lanes in a constrained urban environment. When identifying space for separated bike lanes on these corridors, planners should use the table below.

Traffic Priority: These streets carry significant traffic volumes and are major regional travel arteries. Roads that fall into this street type include Georgia Avenue and Colesville Road in Montgomery County.

Sidewalk Café Priority: These are streets with continuous ground-floor retail where outdoor seating and the pedestrian environment are particularly important. One example of this type of street is Woodmont Avenue between Elm Street and Bethesda Avenue in Montgomery County. On these streets, sidewalks and sidewalk buffers should not be narrowed. These streets require ample pedestrian space as an essential part of their public realm, facilitating commerce and social exchange.

On-Street Parking Priority: These streets have a high demand for on-street parking and limited or no off-street short-term parking options located within one or two blocks. One example of this type of street is Cordell Avenue from Old Georgetown Road to Wisconsin Avenue in Montgomery County. On these streets, on-street parking should remain part of the street design. Land uses on these streets require on-street parking to be successful.

Bikeway Priority: These are streets identified as priorities in the Bicycle Master Plan. They connect major destinations where no low-stress bikeway alternatives currently exist within three blocks. An example street is Bradley Boulevard between Wisconsin Avenue and Glenbrook Road in Montgomery County.

	TRAFFIC PRIORITY	SIDEWALK CAFÉ PRIORITY	ON-STREET PARKING PRIORITY	BIKEWAY PRIORITY
Narrowing travel lanes to minimum widths	1	1	1	1
Eliminating on-street parking	2(b)	3(e)	N/A	2
Narrowing or eliminating the sidewalk buffer	3	N/A	3	4
Narrowing the street buffer	4(c)	4	4	5
Narrowing the separated bike lane	5	5	5	6
Narrowing the sidewalk (a)	6	N/A	6	7
Eliminating travel lanes	7(d)	2	2	3

Notes

- (a) Narrowing the sidewalk is only appropriate in areas where current or projected pedestrian volumes are low.
- (b) Vehicles searching for parking and entering or exiting parking spaces slow through traffic and create vehicular conflicts. The main function of these streets is not affected by parking removal.
- (c) On traffic priority streets, higher traffic speeds and volumes make the street buffer very important for bicyclist comfort, especially if there is no on-street parking.
- (d) This action may only be considered as a last resort because lane removal may create operational issues for the street.
- (e) This action may have an adverse effect on retail businesses, but nearby off-street parking may be able to accommodate the short- and long-term parking need.



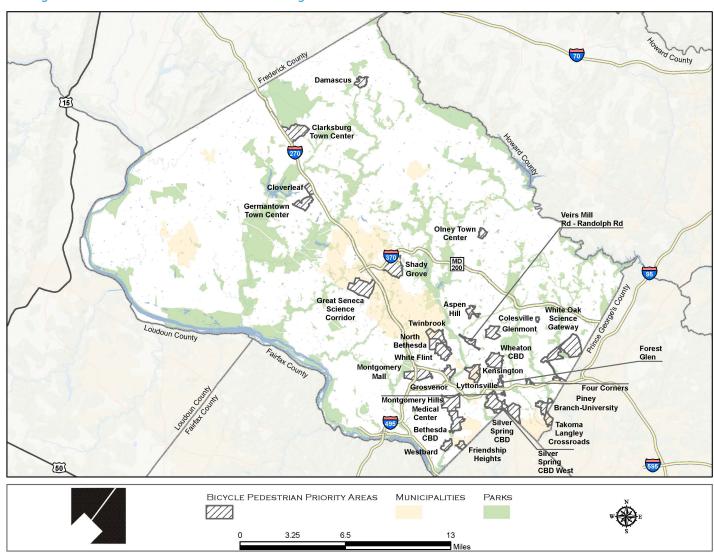
PRIORITIZATION

The network of bikeways and bicycle parking stations recommended in the Bicycle Master Plan is extensive and it is likely to be only partially completed during the 25-year life of this plan. Such a large network is proposed so that opportunities to implement the preferred bicycling network are not lost when unforeseen circumstances arise. However it is important to identify bikeway network priorities because funding for implementation is limited.

The approach to prioritizing the bicycling network is based on reaching the targets established for each metric in the Goals, Objectives, Metrics and Targets section of this plan. The priorities focus on increasing bicycling in the county as quickly as possible, by focusing initial efforts on constructing networks of bikeways in places that the Montgomery County Council has designated as Bicycle Pedestrian Priority Areas (BPPA)¹¹ and completing connections between major activity centers. Also prioritized are missing gaps in the existing low-stress bicycling network and low-cost bikeways, such as neighborhood greenways, which will funnel bicyclists to the BPPAs. This prioritization should be reassessed every few years based on available resources and lessons learned during the implementation process.

A summary of the process used to develop the bikeway recommendations is included in Appendix E.

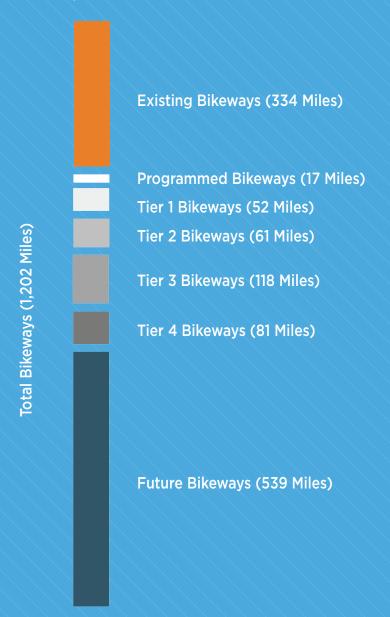
Bicycle Pedestrian Priority Areas



¹¹Montgomery County has designated 31 areas as Bicycle Pedestrian Priority Areas. These locations have higher existing or anticipated levels of walking and bicycling and are prioritized for improvements to walking and bicycling.

Prioritization of Bikeways

The figure below shows how the proposed bicycle network would be built out. Currently about 334 miles of the recommended bikeway network exists. Within the 25-year life of this plan, an additional 329 miles would be constructed, including bikeways that are currently programmed in the county's capital budget and projects prioritized in one of four tiers. Approximately 45 percent of the recommended bikeway network would be constructed beyond the 25-year life of this plan.



To meet the aggressive timeframe for implementing Tier 1 bikeway projects, Montgomery County will need to program additional funds for the Bicycle Pedestrian Priority Areas program and create a new Neighborhood Greenway program. Even with additional funding, several Tier 1 projects, such as Rockville Pike in White Flint, will require substantial dedication from development approvals before they can be implemented.

It is envisioned that most separated bike lane projects will be initially implemented with interim construction (see pages 123 to 129), supplemented (and/or upgraded) by permanent separated bike lane construction (pages 130 to 132) as part of stand-alone facility planning projects by the Montgomery County Department of Transportation and development approvals.

Programmed Bikeways

Programmed bikeways include those that are completely or partially funded in the county's capital improvements budget and are components of the recommended low-stress bicycling network. The list of programmed bikeways shown below are recommended in existing master plans and are largely funded to be completed within 6 years. A full list of funded projects is available at montgomerycountymd.gov/OMB



STREET	FROM	то	BIKEWAY	POLICY AREA	LENGTH (MI)
Capital Crescent Trail (Surface Route)	Woodmont Ave	Elm Street Park	Separated Bike Lanes	Bethesda CBD	0.3
Capital Crescent Trail Breezeway	Elm St Park	Silver Spring Transit Center	Off-Street Trail	Multiple	4.8
Frederick Rd	Stringtown Rd	Brink Rd	Sidepath	Clarksburg	2.5
Goshen Rd	Warfield Rd	Girard St	Sidepath and Conventional Bike Lanes	Montgomery Village/Air- park	3.1
MacArthur Blvd	Goldsboro Rd	District of Columbia	Sidepath and Bikeable Shoulders	Bethesda/Chevy Chase (West)	2.5
Montrose Pkwy Breezeway	Randolph Rd	Veirs Mill Rd	Sidepath	Multiple	1.3
Old Georgetown Rd (south)	Towne Rd	Old Georgetown Rd	Sidepath	White Flint	0.3
Silver Spring Green Trail	Cedar St	Sligo Creek Pkwy	Sidepath	Silver Spring/Takoma Park (East)	0.7
Snouffer School Rd	Centerway Dr	Stweet Autumn Dr	Sidepath	Montgomery Village/Air- park	1.0
Towne Rd (East)	Montrose Pkwy	Old Georgetown Rd	Separated Bike Lanes	White Flint	0.3

Programmed

Tier 1 Bikeway Projects

Tier 1 projects are recommended to be substantially completed within five years of approval of the Bicycle Master Plan. These projects include:

- Bikeways located in seven Bicycle Pedestrian Priority Areas (Bethesda CBD, Friendship Heights CBD, Life Sciences Center, Silver Spring CBD, Wheaton CBD, White Flint and White Oak).
- Neighborhood greenways feeding into these BPPA areas (such as the Edgemoor Lane neighborhood greenway).
- Bikeways with high demand that are included in the capital improvements program (such as the Montrose Parkway East project).
- Other county priorities (such as the Germantown Grosvenor Breezeway, aka the PEPCO Trail).

Projects that should be implemented immediately in Tier 1 are shown below and include those that are likely to have the highest demand due to their location around Metro stations and high-density areas. All other Tier 1 bikeways are shown on the following pages.



STREET	FROM	то	BIKEWAY	LENGTH (MI)
2nd Ave/Wayne Ave	Spring St	Georgia Ave	Separated Bike Lanes	0.5
Arlington Rd	Old Georgetown Rd	Bradley Blvd	Separated Bike Lanes	0.7
Bethesda Trolley Trail Upgrades	Battery Ln	Rugby Ave	Off-Street Trail	0.1
Broadbirch Dr	Tech Rd	Cherry Hill Rd	Separated Bike Lanes	0.7
Capital Crescent Trail Breezeway	Woodmont Ave	Elm Street Park	Off-Street Trail	0.2
Capital Crescent Trail Breezeway	Elm Street Park	Silver Spring Transit Center	Add Lighting	4.8
Cherry Hill Rd	Columbia Pike	Prince George's County	Separated Bike Lanes	1.4
Edgemoor La	Exeter Rd	Arlington Rd	Neighborhood Greenway	0.2
Edgemoor La	Arlington Rd	Bethesda Metrorail Station	Separated Bike Lanes	0.2
Fenton St	Planning Dept Parking Lot	Cameron St	Separated Bike Lanes	0.2
Fenton St	Cameron St	Wayne Ave	Separated Bike Lanes	0.3
Fenton St	Wayne Ave	King St	Separated Bike Lanes	0.6
Friendship Blvd	N Park Ave	District of Columbia	Separated Bike Lanes	0.3
Georgia Ave South Breezeway	Blueridge Ave	University Blvd	Separated Bike Lanes	0.1
Georgia Ave South Breezeway	University Blvd	Windham Ln	Separated Bike Lanes	0.7
Grandview Ave	Blueridge Ave	University Blvd	Separated Bike Lanes	0.1
Grandview Ave	University Blvd	Reedie Dr	Separated Bike Lanes	0.2
Marinelli Rd	Executive Blvd	Woodglen Dr	Separated Bike Lanes	0.2
Marinelli Rd	Woodglen Dr	Nebel St	Separated Bike Lanes	0.4
MD 355 Breezeway Upgrade	NIH Property Line	Battery Ln	Off-Street Trail	0.1
MD 355 Breezeway Upgrade	Battery Ln	Srathmore Ave	Separated Bike Lanes	1.0
Medical Center Dr Ext (Inner)	Great Seneca Hwy	Key West Ave	Separated Bike Lanes	0.4
Medical Center Dr Ext (Both Sides)	Key West Ave	Great Seneca Hwy	Separated Bike Lanes	0.9
Montgomery Ave	Wisconsin Ave	East-West Hwy	Separated Bike Lanes	0.2
Montgomery La	Woodmont Ave	Wisconsin Ave	Separated Bike Lanes	0.1
Woodmont Ave	Strathmore Ave	Wisconsin Ave	Separated Bike Lanes	0.1

Tier 1 Bikeways

STREET	FROM	то	BIKEWAY	POLICY AREA	LENGTH (MI)
13th St / Burlington Ave	District of Columbia	Fenton St	Separated Bike Lanes	Silver Spring CBD	0.3
16th St	Spring St	District of Columbia	Separated Bike Lanes	Silver Spring CBD	0.3
2nd Ave	Spring St	Colesville Rd	Separated Bike Lanes	Silver Spring CBD	0.3
46th St - Connecticut Ave	46th St	Connecticut Ave	Neighborhood Green- way	Bethesda/Chevy Chase (East)	0.9
Alton Pkwy - Edgevale Rd	Georgia Ave	Sligo Creek Trail	Neighborhood Green- way	Silver Spring/Takoma Park (West)	0.6
Arlington Rd	Old Georgetown Rd	Bradley Blvd	Separated Bike Lanes	Bethesda CBD	0.7
Battery La	Old Georgetown Rd	Wisconsin Ave	Separated Bike Lanes	Bethesda CBD	0.3
Battery La / Exeter Rd	Old Georgetown Rd	Elm St	Neighborhood Green- way	Bethesda/Chevy Chase (East)	0.6
Belward Campus Dr (North Side)	Muddy Branch Rd	Great Seneca Hwy	Separated Bike Lanes	R&D Village	0.7
Bethesda - Somerset Neighbor- hood Greenway	Bradley Blvd	Norwood Rd	Off-Street Trail	Bethesda CBD	0.2
Bethesda Trolley Trail	Battery La	Rugby Ave	Off-Street Trail	Bethesda CBD	0.1
Blackwell Rd	Darnestown Rd	Shady Grove Rd	Separated Bike Lanes	R&D Village	1.1
Blueridge Ave	Grandview Ave	Taber St	Separated Bike Lanes / Neighborhood Greenway	Wheaton CBD	0.5
Bradley Blvd	Fairfax Rd	Wisconsin Ave	Separated Bike Lanes	Bethesda CBD	0.5
Broadbirch Dr	Tech Rd	Cherry Hill Rd	Separated Bike Lanes	White Oak	0.7
Broschart Rd (East Side)	Key West Ave	Darnestown Rd	Separated Bike Lanes	R&D Village	0.5
Cameron St	2nd Ave	Spring St	Separated Bike Lanes	Silver Spring CBD	0.3
Capital Crescent Trail Breezeway	Woodmont Ave	Elm Street Park	Off-Street Trail	Bethesda CBD	0.2
Cheltenham Dr	Wisconsin Ave	Tilbury St	Separated Bike Lanes	Bethesda CBD	0.1
Cherry Hill Rd	Columbia Pike	Prince George's County	Separated Bike Lanes	White Oak	1.4
Colesville Rd (North Side)	East-West Hwy	Wayne Ave	Separated Bike Lanes	Silver Spring CBD	0.1
Colesville Rd (South Side)	16th St	East-West Hwy	Sidepath	Silver Spring CBD	0.1
Colesville Rd (South Side)	East-West Hwy	Wayne Ave	Separated Bike Lanes	Silver Spring CBD	0.2

STREET	FROM	то	BIKEWAY	POLICY AREA	LENGTH (MI)
Cornish Rd / Elm St	Bradley Blvd	Arlington Rd	Neighborhood Green- way	Bethesda/Chevy Chase (East)	0.5
Custer Rd / Grant St / Park La	Sonoma Rd	Battery La	Neighborhood Green- way	Bethesda/Chevy Chase (East)	1.0
Decoverly Dr (North / West)	Great Seneca Hwy	City of Gaithersburg	Separated Bike Lanes	R&D Village	0.5
Diamondback Dr (East Side)	City of Gaithersburg	Decoverly Dr	Sidepath	R&D Village	0.5
Diamondback Dr (East Side)	Decoverly Dr	Key West Ave	Separated Bike Lanes	R&D Village	0.2
Dixon Ave	Wayne Ave	Georgia Ave	Separated Bike Lanes	Silver Spring CBD	0.3
Dorset Ave	Little Falls Pkwy	Wisconsin Ave	Neighborhood Green- way	Bethesda/Chevy Chase (East)	0.8
Douglas Ave / McComas Ave / Windham La	St Paul St	Georgia Ave	Neighborhood Green- way	Kensington/Wheaton, Wheaton CBD	1.2
East Ave / Upton Dr	Upton Dr	University Blvd	Neighborhood Green- way	Wheaton CBD, Kensington / Wheaton CBD	0.2
East-West Hwy	16th St	Colesville Rd	Separated Bike Lanes	Silver Spring CBD	0.2
East-West Hwy	Colesville Rd	Georgia Ave	Separated Bike Lanes	Silver Spring CBD	0.5
Edgemoor La	Exeter Rd	Arlington Rd	Neighborhood Green- way	Bethesda/Chevy Chase (East), Bethesda CBD	0.2
Edgemoor La	Arlington Rd	Bethesda Metrorail Station	Separated Bike Lanes	Bethesda CBD	0.2
Edson La	Woodglen Dr	Rockville Pike	Separated Bike Lanes	White Flint	0.2
Ellsworth Dr	Fenton St	Georgia Ave	Sidepath	Silver Spring CBD	0.2
Elm St Park - Bradley La	Elm St	Bradley La	Neighborhood Green- way	Bethesda/Chevy Chase (East)	0.4
Executive Blvd	Old Georgetown Rd	Nicholson La	Separated Bike Lanes	White Flint	0.3
FDA Blvd (North Side)	Cherry Hill Rd	FDA Gate	Separated Bike Lanes	White Oak	0.8
Fenton St	Planning Department Parking Lot	Cameron St	Separated Bike Lanes	Silver Spring CBD	0.2
Fenton St	Cameron St	Wayne Ave	Separated Bike Lanes	Silver Spring CBD	0.3
Fenton St	Wayne Ave	King St	Separated Bike Lanes	Silver Spring CBD	0.6
Fenton St - Piney Branch Rd	Fenton St	Piney Branch Rd	Neighborhood Green- way	Silver Spring/Takoma Park (East)	0.6
Friendship Blvd	N Park Ave	District of Columbia	Separated Bike Lanes	Friendship Heights	0.3
Georgia Ave South Breezeway	Georgia Ave	Arcola Ave	Neighborhood Green- way	Kensington/Wheaton	0.7

STREET	FROM	то	BIKEWAY	POLICY AREA	LENGTH (MI)
Georgia Ave South Breezeway	Arcola Ave	Blueridge Ave	Separated Bike Lanes	Kensington/Wheaton, Wheaton CBD	0.3
Georgia Ave South Breezeway	Blueridge Ave	University Blvd	Separated Bike Lanes	Wheaton CBD	0.1
Georgia Ave South Breezeway	University Blvd	Windham La	Separated Bike Lanes	Wheaton CBD	0.7
Georgia Ave South Breezeway	Columbia Blvd	Spring St	Neighborhood Green- way	Silver Spring/Takoma Park (West)	0.8
Germantown - Grosvenor Breezeway	Falls Rd	Tuckerman La	Off-Street Trail	Potomac	1.4
Germantown - Life Sciences Center Breezeway	Sam Eig Hwy	Darnestown Rd	Sidepath	R&D Village	0.5
Grandview Ave	Arcola Ave	Blueridge Ave	Neighborhood Green- way	Kensington/Wheaton, Wheaton CBD	0.3
Grandview Ave	Blueridge Ave	University Blvd	Separated Bike Lanes	Wheaton CBD	0.1
Grandview Ave	University Blvd	Reedie Dr	Separated Bike Lanes	Wheaton CBD	0.2
Great Seneca Hwy (West Side)	Key West Ave	Darnestown Rd	Sidepath	R&D Village	0.5
Industrial Pkwy (North Side)	Columbia Pike	FDA Blvd	Separated Bike Lanes	White Oak	1.0
Industrial Pkwy (South Side)	Columbia Pike	FDA Blvd	Separated Bike Lanes	White Oak	1.0
Jefferson St / Executive Blvd	City of Rockville	Old Georgetown Rd	Separated Bike Lanes	North Bethesda	0.6
Jones Bridge Rd (South Side)	Glenbrook Pkwy	Maryland Ave	Sidepath	Bethesda/Chevy Chase (East)	0.0
Kensington Blvd	Galt Ave	Grandview Ave	Sidepath	Wheaton CBD	0.3
Kensington Blvd / Galt Ave	Kensington Blvd	Upton Dr	Neighborhood Green- way	Wheaton CBD	0.1
Leland St	Wisconsin Ave	46th St	Separated Bike Lanes	Bethesda CBD	0.1
Lockwood Dr / Stewart La	Old Columbia Pike	White Oak Park Drwy	Conventional Bike Lanes	White Oak	0.1
Lockwood Dr	White Oak Park Drwy	New Hampshire Ave	Sidepath	White Oak	0.2
Marinelli Rd	Executive Blvd	Woodglen Dr	Separated Bike Lanes	White Flint	0.2
Marinelli Rd	Woodglen Dr	Nebel St	Separated Bike Lanes	White Flint	0.4
Maryland Ave / Pearl St	Jones Bridge Rd	Sleaford Rd	Neighborhood Green- way	Bethesda/Chevy Chase (East)	0.5
MD 355 South Breezeway	City of Rockville	Marinelli Rd	Separated Bike Lanes	North Bethesda, White Flint	0.9
MD 355 South Breezeway	Rockville Pike	Woodglen Dr	Separated Bike Lanes	White Flint	0.0

STREET	FROM	то	BIKEWAY	POLICY AREA	LENGTH (MI)
MD 355 South Breezeway	Marinelli Rd	Edson La	Separated Bike Lanes	White Flint	0.2
MD 355 South Breezeway	Charles St	Cedar La	Sidepath	Bethesda/Chevy Chase (East)	0.2
MD 355 South Breezeway	Cedar La	South of Lincoln St	Sidepath	Bethesda/Chevy Chase (East)	0.5
MD 355 South Breezeway	Old Georgetown Rd	NIH Perimeter	Off-Street Trail	Bethesda/Chevy Chase (East)	0.7
MD 355 South Breezeway	NIH Property Line	Battery La	Off-Street Trail	Bethesda CBD	0.1
MD 355 South Breezeway	Bethesda Trolley Trail	Woodmont Ave	Separated Bike Lanes	Bethesda CBD	0.2
MD 355 South Breezeway	Battery Ln	Old Georgetown Rd	Separated Bike Lanes	Bethesda CBD	0.5
MD 355 South Breezeway	Old Georgetown Rd	Wisconsin Ave	Separated Bike Lanes	Bethesda CBD	0.5
MD 355 South Breezeway	Woodmont Ave	Bradley Blvd	Priority Shared Lane Markings	Bethesda CBD	0.2
MD 355 South Breezeway	Strathmore Ave	Wisconsin Ave	Separated Bike Lanes	Bethesda CBD	0.1
MD 355 South Breezeway	Bradley Blvd	Nottingham St	Sidepath	Bethesda/Chevy Chase (East)	0.1
MD 355 South Breezeway	Oliver St	District of Columbia	Separated Bike Lanes	Friendship Heights	0.4
Medical Center Dr (Outer Side)	Great Seneca Hwy	Broschart Rd	Separated Bike Lanes	R&D Village	0.1
Medical Center Dr Ext (Inner Side)	Great Seneca Hwy	Key West Ave	Separated Bike Lanes	R&D Village	0.4
Medical Center Dr Ext (Outer Side)	Key West Ave	Great Seneca Hwy	Separated Bike Lanes	R&D Village	0.5
Montgomery Ave	Wisconsin Ave	East-West Hwy	Separated Bike Lanes	Bethesda CBD	0.2
Montgomery La	Woodmont Ave	Wisconsin Ave	Separated Bike Lanes	Bethesda CBD	0.1
Montrose Pkwy Breezeway	Rockville Pike	Randolph Rd	Sidepath	White Flint	0.0
Nebel St	Randolph Rd	Nicholson Ln	Separated Bike Lanes	White Flint	0.2
Nebel St Ext	Nicholson Ln	Rockville Pike	Separated Bike Lanes	White Flint	0.7
Nicholson Ln	Old Georgetown Rd	Rockville Pike	Separated Bike Lanes	White Flint	0.5
Nicholson Ln	Rockville Pike	Nebel St	Separated Bike Lanes	White Flint	0.4
Norfolk Ave	Rugby Ave	Woodmont Ave	Shared Street	Bethesda CBD	0.3
Norfolk Ave	Woodmont Ave	Wisconsin Ave	Separated Bike Lanes	Bethesda CBD	0.1

STREET	FROM	то	BIKEWAY	POLICY AREA	LENGTH (MI)
Old Georgetown Rd	Rockville Pike	Nebel St	Separated Bike Lanes	White Flint	0.3
Old Georgetown Rd (South Side)	Rockville Pike	Towne Rd	Separated Bike Lanes	White Flint	0.3
Old Georgetown Rd	Woodmont Ave	Wisconsin Ave	Separated Bike Lanes	Bethesda CBD	0.1
Omega Dr	Fields Rd	Key West Ave	Separated Bike Lanes	R&D Village	0.5
Pearl St	Sleaford Rd	East West Hwy	Separated Bike Lanes / Neighborhood Greenway	Bethesda CBD	0.2
Pearl St	East West Hwy	Montgomery Ave	Separated Bike Lanes	Bethesda CBD	0.1
Pearl St	Montgomery Ave	Capital Crescent Trail	Shared Street	Bethesda CBD	0.1
Plum Orchard Dr	Broadbirch Dr	Cherry Hill Rd	Separated Bike Lanes	White Oak	0.6
Prichard Rd	Georgia Ave	Amherst Ave	Separated Bike Lanes	Wheaton CBD	0.2
Reedie Dr	Veirs Mill Rd	Georgia Ave	Shared Street	Wheaton CBD	0.1
Reedie Dr	Georgia Ave	Amherst Ave	Separated Bike Lanes	Wheaton CBD	0.1
Rockville Pike (East Side)	City of Rockville	Bou Ave	Separated Bike Lanes	North Bethesda	0.2
Rockville Pike (East Side)	Bou Ave	Edson La	Separated Bike Lanes	North Bethesda, White Flint	1.2
Rockville Pike (West Side)	Marinelli Rd	Edson La	Separated Bike Lanes	White Flint	0.5
Rosedale Ave	Wisconsin Ave	Neighborhood Con- nector	Neighborhood Green- way	Bethesda CBD, Bethesda/ Chevy Chase (East)	0.2
S Park Ave / Montgomery Ave Greenway	Friendship Blvd	Belmont Ave Trail	Separated Bike Lanes	Friendship Heights	0.2
Silver Spring - Glenmont Bike- way	16th St	Spring St	Neighborhood Green- way	Silver Spring/Takoma Park (West)	0.5
Silver Spring Ave	Georgia Ave	Grove St	Priority Shared Lane Markings	Silver Spring CBD	0.3
Silver Spring Ave	Grove St	Piney Branch Rd	Neighborhood Green- way	Silver Spring/Takoma Park (East)	0.7
Sleaford Rd	Tilbury St	Capital Crescent Trail	Neighborhood Green- way	Bethesda CBD, Bethesda/ Chevy Chase (East)	0.5
Spring St	16th St	2nd Ave	Separated Bike Lanes	Silver Spring CBD	0.1
St Elmo Ave	Woodmont Ave	Old Georgetown Rd	Conventional Bike Lanes	Bethesda CBD	0.1
Street B-5	Plum Orchard Dr	FDA Blvd	Separated Bike Lanes	White Oak	0.4
Tech Rd	Columbia Pike	Industrial Pkwy	Separated Bike Lanes	White Oak	0.3

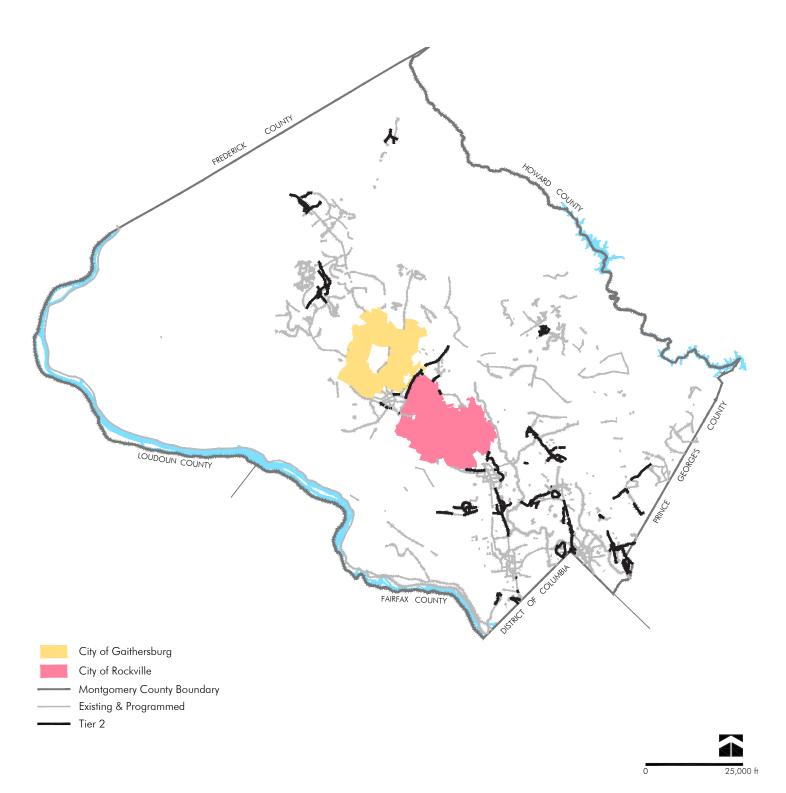
STREET	FROM	то	BIKEWAY	POLICY AREA	LENGTH (MI)
Tilbury St	Rosedale Ave	Sleaford Rd	Neighborhood Green- way	Bethesda CBD	0.3
Towne Rd (West Side)	Rockville Pike	Montrose Pkwy	Separated Bike Lanes	North Bethesda	0.2
Traville Gateway Dr Ext	Darnestown Rd	Medical Center Dr	Separated Bike Lanes	R&D Village	0.1
University Blvd	Valley View Ave	Veirs Mill Rd	Separated Bike Lanes	Wheaton CBD	0.3
University Blvd Breezeway	Valley View Ave	Amherst Ave	Separated Bike Lanes	Wheaton CBD	0.4
University Blvd Breezeway	Amherst Ave	Dayton St	Sidepath	Wheaton CBD	0.4
US 29 Corridor Breezeway	Stewart La	Lockwood Dr	Separated Bike Lanes / Sidepath	White Oak	0.5
US 29 Corridor Breezeway	White Oak Park Drwy	Lockwood Dr	Sidepath	White Oak	0.1
US 29 Corridor Breezeway	Sligo Creek Trail	Spring St	Neighborhood Green- way	Silver Spring/Takoma Park (East)	0.7
US 29 Corridor Breezeway	Spring St	Fenton St	Separated Bike Lanes	Silver Spring CBD	0.2
Veirs Mill Rd Breezeway	Reedie Dr	Georgia Ave	Separated Bike Lanes	Wheaton CBD	0.2
Wayne Ave	Colesville Rd	Fenton St	Separated Bike Lanes	Silver Spring CBD	0.3
Wayne Ave	Fenton St	Cedar St	Separated Bike Lanes	Silver Spring CBD	0.2
Wayne Ave - Philadelphia Ave	Wayne Ave	Philadelphia Ave	Neighborhood Green- way	Silver Spring/Takoma Park (East)	0.8
Wheaton Plaza Entrance	University Blvd	Wheaton Plaza Ring Rd	Separated Bike Lanes	Wheaton CBD	0.1
Wheaton Plaza Entrance	Veirs Mill Rd	Wheaton Plaza Ring Rd	Separated Bike Lanes	Wheaton CBD	0.1
Willard Ave Trail	Willard Ave	Western Ave	Off-Street Trail	Bethesda/Chevy Chase (East)	0.0
Woodmont Ave	Battery Ln	Wisconsin Ave	Separated Bike Lanes	Bethesda CBD	0.1
Veirs Mill Rd Breezeway	College View Ave	Reedie Dr	Separated Bike Lanes	Wheaton CBD	0.4
Willard Ave Trail	Willard Ave	Western Ave	Off-Street Trail	Friendship Heights	0.5

Tier 2 Bikeway Projects

Tier 2 projects are recommended to be substantially completed within 10 years of approval of the Bicycle Master Plan. These projects include:

• Bikeways located in the remaining Bicycle Pedestrian Priority Areas.





Tier 2 Bikeways

STREET	FROM	то	BIKEWAY	POLICY AREA	LENGTH (MI)
16th St	Georgia Ave	Spring St	Separated Bike Lanes	Silver Spring/Takoma Park (West)	0.8
Anne St	University Blvd	Glenside Dr	Neighborhood Green- way	Takoma/Langley	0.3
Arliss St	Flower Ave	Piney Branch Rd	Separated Bike Lanes	Long Branch Sector Plan	0.3
Aspen Hill Rd	Connecticut Ave	Georgia Ave	Separated Bike Lanes	Aspen Hill	0.3
Bradley Ln	Wisconsin Ave	West Ave	Separated Bike Lanes	Bethesda CBD	0.1
Century Blvd	Aircraft Dr	Middlebrook Rd	Priority Shared Lane Markings	Germantown Town Center	0.4
Century Blvd	Middlebrook Rd	Wisteria Dr	Priority Shared Lane Markings	Germantown Town Center	0.2
Clarksburg Rd	Frederick Rd	Gateway Center Dr	Sidepath and Conventional Bike Lanes	Clarksburg Town Center	0.2
Colie Dr	Randolph Rd	Havard St	Sidepath	Kensington/Wheaton	0.2
Connecticut Ave (East Side)	Georgia Ave	Aspen Hill Rd	Separated Bike Lanes	Aspen Hill	0.3
Connecticut Ave (East Side)	Aspen Hill Rd	Independence St	Separated Bike Lanes	Aspen Hill	0.3
Connecticut Ave (West Side)	Farragut Ave	Knowles Ave	Separated Bike Lanes	Kensington/Wheaton	0.3
Crystal Rock Dr	Germantown Rd	Middlebrook Rd	Sidepath	Germantown West	0.4
Crystal Rock Dr (East Side)	Father Hurley Blvd	Cloverleaf Dr	Separated Bike Lanes	Germantown Town Center	0.3
Crystal Rock Dr (East Side)	Cloverleaf Dr	Aircraft Dr	Separated Bike Lanes	Germantown Town Center	0.3
Crystal Rock Dr (East Side)	Aircraft Dr	Germantown Rd	Separated Bike Lanes	Germantown Town Center	0.4
Darnestown Rd (North Side)	Key West Ave	City of Rockville	Sidepath	R&D Village	0.4
Democracy Blvd	Seven Locks Rd	Westlake Dr	Sidepath	Potomac	0.7
Democracy Blvd	Westlake Dr	Ferwood Rd	Sidepath	North Bethesda, Potomac	0.3
Democracy Blvd	Fernwood Rd	Old Georgetown Rd	Sidepath	North Bethesda	0.6
Denley Rd	Randolph Rd	Georgia Ave	Neighborhood Green- way	Glenmont, Kensington/ Wheaton	0.5
East-West Hwy	Sundale Dr	16th St	Sidepath	Silver Spring/Takoma Park (West)	0.4
Flower - University	Flower Ave	University Blvd	Neighborhood Green- way	Long Branch Sector Plan	0.5

STREET	FROM	то	BIKEWAY	POLICY AREA	LENGTH (MI)
Greenwood Ave	Wabash Ave	Division St	Neighborhood Green- way	Silver Spring/Takoma Park (East)	0.5
Grosvenor La	Bethesda Trolley Trail	Rockville Pike	Sidepath	Grosvenor, North Bethesda	0.5
Grosvenor Pl	Tuckerman La	Grosvenor La	Sidepath	Grosvenor	0.5
Grubb Rd	Lyttonsville Rd	District of Columbia	Separated Bike Lanes	Silver Spring/Takoma Park (West)	0.3
Grubb Rd / Lyttonsville Rd	Brookville Rd	Lyttonsville Pl	Separated Bike Lanes	Silver Spring/Takoma Park (West)	0.1
Grubb Rd / Lyttonsville Rd	Lyttonsville Pl	East West Hwy	Separated Bike Lanes	Silver Spring/Takoma Park (West)	0.4
High Corner St / Lewis Dr	Ridge Rd	Main St	Separated Bike Lanes	Damascus	0.2
Hillcrest Rd / Appomattox Ave	Georgia Ave	Spartan Rd	Separated Bike Lanes	Olney	0.2
Holton La	Wildwood Dr	New Hampshire Ave	Neighborhood Green- way	Takoma/Langley	0.1
Howard Ave / Montgomery Ave	Connecticut Ave	Kensington Pkwy	Sidepath	Kensington/Wheaton	0.1
Intercounty Connector Trail Breezeway	MD 200 Ramp	Midcounty Hwy	Sidepath	Derwood	0.9
Intercounty Connector Trail Breezeway	Needwood Rd (South)	Shady Grove Access Rd	Sidepath	Shady Grove Metro Station	0.5
Knowles Ave	Rock Creek Trail	Summit Ave	Sidepath	Kensington/Wheaton	0.4
Layhill Rd (West Side)	Glenallan Ave	Georgia Ave	Separated Bike Lanes	Glenmont	0.2
Lyttonsville Rd / Michigan Ave	Pennsylvania Ave	Lyttonsville Pl	Neighborhood Green- way	Silver Spring/Takoma Park (West)	0.3
Main St	Lewis Dr	Woodfield Rd	Separated Bike Lanes	Damascus	0.2
Main St	Woodfield Rd	Howard Chapel Dr	Sidepath	Damascus	0.2
MD 355 North Breezeway	Shady Grove Rd	City of Rockville	Sidepath	Shady Grove Metro Station	0.3
MD 355 North Breezeway	City of Rockville	Paramount Dr	Separated Bike Lanes / Sidepath	Shady Grove Metro Station	0.8
MD 355 North Breezeway	Paramount Dr	East Gude Dr	Sidepath	Derwood	0.5
MD 355 South Breezeway	Bradley Blvd	Oliver St	Sidepath	Bethesda/Chevy Chase (East)	0.1
Middlebrook Rd (West Side)	Locbury Dr	Century Blvd	Separated Bike Lanes	Germantown Town Center	0.2
Middlebrook Rd (West)	Century Blvd	Germantown Rd	Separated Bike Lanes	Germantown Town Center	0.1
Montrose Ave	Tuckerman La	End of Montrose Ave	Sidepath	Grosvenor, North Bethesda	0.5

STREET	FROM	то	BIKEWAY	POLICY AREA	LENGTH (MI)
Ridge Rd	Beall Ave	Main St	Separated Bike Lanes	Damascus	0.3
Ridge Rd	Main St	Bethesda Church Rd	Separated Bike Lanes	Damascus	0.3
River Rd (West Side)	Westbard Ave Ext	Capital Crescent Trail	Sidepath	Bethesda/Chevy Chase (West)	0.2
Rock Spring Dr	Fernwood Rd	Old Georgetown Rd	Separated Bike Lanes	North Bethesda	0.6
Rockledge Dr	Westlake Ter	Rockledge Blvd	Separated Bike Lanes	North Bethesda	0.6
Rockledge Dr	Rockledge Dr	Democracy Blvd	Separated Bike Lanes	North Bethesda	0.5
Rockville Pike	Grosvenor La	Cedar La	Sidepath	Bethesda/Chevy Chase (East), Kensington/Whe- aton	1.2
Rockville Pike	Strathmore Ave	Grosvenor La	Sidepath	Grosvenor, North Bethesda	0.9
Rockville Pike (East Side)	Edson Ln	Strathmore Ave	Sidepath	North Bethesda, White Flint	0.4
Shady Grove Rd (East Side)	Oakmont Ave	Crabbs Branch Way	Sidepath	Shady Grove Metro Station	0.3
Shady Grove Rd (East Side)	City of Gaithersburg	Frederick Rd	Sidepath	Shady Grove Metro Station	0.1
Shady Grove Rd (East Side)	Frederick Rd	Key West Ave	Sidepath	Rockville City, Shady Grove Metro Station	1.5
Shady Grove Rd (South Side)	Crabbs Branch Way	Shady Grove Access Rd	Sidepath	Shady Grove Metro Station	0.4
Silver Spring - Glenmont Neigh- borhood Greenway	Darcy Forest Dr	Georgia Ave	Sidepath	Kensington/Wheaton	0.1
Snowden Farm Pkwy	Frederick Rd	Clarksburg Rd	Sidepath	Clarksburg Town Center	0.6
Spartan Rd	Georgia Ave	Olney-Sandy Spring Rd	Separated Bike Lanes	Olney	0.3
Spartan Rd	Olney-Sandy Spring Rd	Appomattox Ave	Separated Bike Lanes	Olney	0.2
St Paul St	Metropolitan Ave	Montgomery Ave	Priority Shared Lane Markings / Off-Street Trail	Kensington/Wheaton	0.4
Strathmore Hall St	Tuckerman La	End of Montrose Ave	Sidepath	Grosvenor	0.0
Strathmore Trail	Strathmore Ave	Tuckerman La	Off-Street Trail	Grosvenor	0.1
Street A-251	Frederick Rd	Stringtown Rd	Sidepath	Clarksburg Town Center	0.7
Street B-2	Diamondback Dr	Omega Dr	Separated Bike Lanes	R&D Village	0.3
Street B-2	Georgia Ave	Randolph Rd	Separated Bike Lanes	Glenmont	0.2

STREET	FROM	то	BIKEWAY	POLICY AREA	LENGTH (MI)
Stringtown Rd (East Side)	Snowden Farm Pkwy	Gateway Center Dr	Sidepath	Clarksburg	1.0
Summit Ave / Farragut Ave	Connecticut Ave	Plyers Mill Rd	Separated Bike Lanes	Kensington/Wheaton	0.2
Summit Ave / Farragut Ave	Plyers Mill Rd	Knowles Ave	Separated Bike Lanes	Kensington/Wheaton	0.2
Summit Hills Bikeway	Spencer Rd	16th St	Sidepath or Separated Bike Lanes	Silver Spring/Takoma Park (West)	0.2
Tuckerman La	Rockville Pike	Rockville Pike	Separated Bike Lanes	Grosvenor	0.7
Twinbrook Pkwy (East Side)	Halpine Rd	Parklawn Dr	Separated Bike Lanes	Twinbrook	0.3
Twinbrook Pkwy (East Side)	Parklawn Dr	City of Rockville	Separated Bike Lanes	Twinbrook	0.1
University Blvd	Connecticut Ave	Decatur Ave	Separated Bike Lanes	Kensington/Wheaton	0.2
University Blvd	Decatur Ave	Valley View Ave	Sidepath	Kensington/Wheaton, Wheaton CBD	0.7
University Blvd (West Side)	Lorain Ave	Franklin Ave	Sidepath	Kensington/Wheaton	0.2
University Blvd (West Side)	Carroll Ave	Prince George's County	Separated Bike Lanes	Takoma/Langley	0.6
University Blvd Breezeway	Lorain St	Lexington Ave	Sidepath	Kensington/Wheaton	0.3
University Blvd Breezeway	Piney Branch Rd	Carroll Ave	Separated Bike Lanes	Long Branch Sector Plan	0.4
University Blvd Breezeway	Carroll Ave	Prince George's County	Separated Bike Lanes	Silver Spring/Takoma Park (East)	0.1
US 29 Corridor Breezeway	New Hampshire Ave	Columbia Pike	Sidepath	White Oak	0.8
US 29 Corridor Breezeway	Tech Rd	Stewart La	Sidepath	Fairland/Colesville, White Oak	1.3
Walter Johnson Rd	Bowman Mill Dr	Middlebrook Rd	Sidepath / Off-Street Trail	Germantown Town Center	0.3
Weller Rd / Briggs Rd	Flack St	Layhill Rd	Neighborhood Green- way / Sidepath	Glenmont	0.8
Westbard Ave	River Rd	Westbard Cir	Separated Bike Lanes	Bethesda/Chevy Chase (West)	0.3
Westbard Ave	Westbard Cir	Massachusetts Ave	Sidepath	Bethesda/Chevy Chase (West)	0.3
Westlake Ter / Fernwood Rd	Rockledge Dr	Democracy Blvd	Separated Bike Lanes	North Bethesda	0.4
Westlake Ter / Fernwood Rd	Westlake Dr	Rockledge Dr	Separated Bike Lanes	North Bethesda, Potomac	0.5
Wheaton Plaza Ring Road	Wheaton Plaza Ring Road	Wheaton Plaza Ring Road	Separated Bike Lanes	Wheaton CBD	1.1
Wildwood Dr	Carroll Ave	Glenside Dr	Neighborhood Green- way	Takoma/Langley	0.6

STREET	FROM	то	BIKEWAY	POLICY AREA	LENGTH (MI)
Willard Ave	Willard Ave Trail	Wisconsin Ave	Separated Bike Lanes	Friendship Heights	0.5
Wisteria Dr (East Side)	Father Hurley Blvd	Germantown Rd	Separated Bike Lanes	Germantown Town Center	0.1
Wisteria Dr (East Side)	Germantown Rd	Crystal Rock Dr	Separated Bike Lanes	Germantown Town Center	0.2
Wisteria Dr (East Side)	Crystal Rock Dr	Great Seneca Hwy	Separated Bike Lanes	Germantown West	0.3
Woodfield Rd	Main St	Bethesda Church Rd	Sidepath	Damascus	0.3



Tier 3 Bikeways

Tier 3 projects are recommended to be substantially completed within 20 years of approval of the Bicycle Master Plan. These projects include:

- Remaining neighborhood greenways.
- Highest demand bikeways located outside of the Bicycle Pedestrian Priority Areas.
- High demand recreational bicycling routes.



Tier 3 Bikeways

STREET	FROM	то	BIKEWAY	POLICY AREA	LENGTH (MI)
Aberdeen / Garfield	Sonoma Rd	Bradley Blvd	Neighborhood Green- way	Bethesda/Chevy Chase (East), Bethesda/Chevy Chase (West)	1.0
Amity Dr	Washington Grove Ln	Piedmont Crossing LP Trail	Sidepath	Derwood	0.9
Aspen Hill Rd	Veirs Mill Rd	Artic Ave	Sidepath	Aspen Hill	0.4
Aspen Hill Rd	Artic Ave	Parkland Dr	Sidepath	Aspen Hill	0.9
Aspen Hill Rd	Parkland Dr	Connecticut Ave	Sidepath	Aspen Hill	0.4
Briggs Chaney Rd (North Side)	Old Columbia Pike	ICC Trail	Sidepath	Fairland/Colesville	1.1
Briggs Chaney Rd (South Side)	Old Columbia Pike	Prince George's County	Sidepath	Fairland/Colesville	0.6
Brookville Rd	Stewart Ln	Seminary Rd	Sidepath	Silver Spring/Takoma Park (West)	0.6
Brookville Rd / Rock Creek Trail	Beach Dr	Brookville Rd	Neighborhood Green- way	Bethesda/Chevy Chase (East)	0.9
Brunett Ave	University Blvd	Sligo Creek Parkway	Neighborhood Green- way	Kensington/Wheaton, Silver Spring/Takoma Park (West)	1.0
Capital Crescent Trail Breezeway	River Rd	Woodmont Ave	Off-Street Trail	Bethesda CBD, Bethesda/ Chevy Chase (East)	1.2
Castle Blvd	Castle Ridge Cir	Briggs Chaney Rd	Separated Bike Lanes	Fairland/Colesville	0.5
Christopher Ave	Montgomery Village Ave	City of Gaithersburg	Separated Bike Lanes	Montgomery Village/Air- park	0.2
Clopper Rd (West)	Germantown Rd	Great Seneca Hwy	Sidepath	Germantown West	0.1
Clopper Rd	Great Seneca Hwy	Mateny Rd	Sidepath and Bikeable Shoulders	Germantown West	0.5
Clopper Rd	Mateny Rd	City of Gaithersburg	Sidepath and Bikeable Shoulders	Germantown West, North Potomac	1.7
College View Dr / Trail	Veirs Mill Rd	Veirs Mill Rd	Neighborhood Green- way	Kensington/Wheaton	0.6
Connecticut Ave (East Side)	Bel Pre Rd	Georgia Ave	Sidepath	Aspen Hill	0.0
Connecticut Ave / Rock Creek	Connecticut Ave	Beach Dr	Neighborhood Green- way	Bethesda/Chevy Chase (East)	1.0
Corridor Cities Transitway Trail	Omega Dr	King Farm Blvd	Off-Street Trail	Gaithersburg City, Rockville City	0.5
Darnestown Rd	Quince Orchard Rd	Tschiffely Square Rd	Separated Bike Lanes and Conventional Bike Lanes	North Potomac	0.3
Darnestown Rd	Tschiffely Square Rd	Main St	Sidepath and Conven- tional Bike Lanes	North Potomac	0.4

STREET	FROM	то	BIKEWAY	POLICY AREA	LENGTH (MI)
Dawson Farm Rd	Germantown Rd	Great Seneca Hwy	Sidepath	Germantown West	0.2
Edson La	Old Georgetown Rd	Woodglen Dr	Sidepath	North Bethesda	0.5
Emory La	Holly Ridge Rd	Muncaster Mill Rd	Sidepath	Olney	0.3
Father Hurley Blvd (West Side)	Wisteria Dr	Crystal Rock Dr	Sidepath	Germantown West	0.9
Fernwood Rd	Democracy Blvd	Marywood Rd	Sidepath	Bethesda/Chevy Chase (West), North Bethesda	0.9
Fernwood Rd - Grant St	Fernwood Rd	Grant St	Neighborhood Green- way	Bethesda/Chevy Chase (East), Bethesda/Chevy Chase (West)	1.6
Fields Rd	Sam Eig Hwy	City of Gaithersburg	Sidepath	R&D Village	0.2
Forest Glen Rd	Georgia Ave	Brunett Ave	Sidepath	Kensington/Wheaton	1.1
Four Corners	University Blvd	Colesville Rd	Neighborhood Green- way	Kensington/Wheaton	0.8
Franklin Ave	University Blvd	End of Franklin Ave	Neighborhood Green- way	Silver Spring/Takoma Park (East)	0.6
Frederick Rd (East Side)	O'Neill Dr	Shady Grove Rd	Sidepath	Derwood	0.1
Garret Park Rd	Schuylkill Rd	Rock Creek Trail	Sidepath	Kensington/Wheaton, North Bethesda	0.2
Georgia Ave - Sligo Creek Trail	Georgia Ave	Sligo Creek Trail	Neighborhood Green- way	Silver Spring/Takoma Park (West)	0.4
Georgia Ave - University Blvd	Georgia Ave	University Blvd	Neighborhood Green- way	Kensington/Wheaton	1.7
Georgia Ave (East Side)	Randolph Rd	Mason St	Sidepath	Kensington/Wheaton	0.2
Georgia Ave (East Side)	Mason St	Henderson Ave	Sidepath	Kensington/Wheaton	0.3
Georgia Ave North Breezeway	Bel Pre Rd	Connecticut Ave	Sidepath	Aspen Hill	0.7
Georgia Ave North Breezeway	Queen Mary Dr	Emory La	Sidepath	Olney	1.4
Georgia Ave South Breezeway	Randolph Rd	Mason St	Sidepath	Kensington/Wheaton	0.2
Germantown - Burtonsville Breezeway	Clopper Rd	Frederick Rd	Off-Street Trail	North Potomac	1.2
Germantown - Burtonsville Breezeway	Frederick Rd	Montgomery Village Ave	Off-Street Trail	Montgomery Village/Air- park	1.7
Germantown - Grosvenor Breezeway	Angus Pl	Old Georgetown Rd	Separated Bike Lanes	North Bethesda, Potomac	1.9
Germantown - Grosvenor Breezeway	Old Georgetown Rd	Rockville Pike	Sidepath	Grosvenor, North Bethesda	1.2
Germantown - Grosvenor Breezeway	Utility Corridor #1	Angus Pl	Separated Bike Lanes	Potomac	0.4

STREET	FROM	то	BIKEWAY	POLICY AREA	LENGTH (MI)
Germantown - Life Sciences Center Breezeway	Observation Dr	Century Blvd	Separated Bike Lanes	Germantown East, Germantown West	0.5
Germantown Rd	Aircraft Dr	Seneca Meadows Pkwy	Sidepath	Germantown Town Center, Germantown West	0.7
Germantown Rd (North Side)	Clopper Rd	Father Hurley Blvd	Sidepath	Germantown West	0.3
Germantown Rd (North Side)	Seneca Meadows Pkwy	Observation Dr	Sidepath	Germantown East	0.3
Glen Mill Rd	Darnestown Rd	Valley Dr	Sidepath	R&D Village	0.9
Glenbrook Rd	Battery La	Bradley Blvd	Neighborhood Green- way	Bethesda/Chevy Chase (East)	0.9
Grant Ave	Piney Branch Rd	Ethan Allen Ave	Neighborhood Green- way	Silver Spring/Takoma Park (East)	0.7
Henderson Ave	Georgia Ave	Trail	Sidepath	Kensington/Wheaton	0.2
Hesketh - Kirkside	Wisconsin Ave	Western Ave	Neighborhood Green- way	Bethesda/Chevy Chase (East)	0.5
Independence St	Parkland Dr	Connecticut Ave	Sidepath	Aspen Hill	0.4
Intercounty Connector Trail Breezeway	Shady Grove Rd	Muncaster Mill Rd	Sidepath	Derwood	0.9
Intercounty Connector Trail Breezeway	Muncaster Mill Rd	Beach Dr	Sidepath	Rural East (East)	0.3
Intercounty Connector Trail Breezeway	Muncaster Rd	Needwood Rd	Sidepath and Bikeable Shoulders	Rural East (East), Derwood	0.8
Intercounty Connector Trail Breezeway	Emory La	Georgia Ave	Off-Street Trail	Olney	1.2
Intercounty Connector Trail Breezeway	ICC Trail	Notley Rd	Sidepath	Cloverly	0.8
Intercounty Connector Trail Breezeway	Layhill Rd	Bonifant Rd	Off-Street Trail	Aspen Hill	0.8
Intercounty Connector Trail Breezeway	Bonifant Rd	New Hampshire Ave	Sidepath	Cloverly	0.4
Intercounty Connector Trail Breezeway	New Hampshire Ave	Briggs Chaney Rd	Off-Street Trail	Cloverly, Fairland/Colesville	3.5
Jackson Rd - Columbia Pike	Jackson Rd	Columbia Pike	Neighborhood Green- way	Fairland/Colesville	0.9
Jones Bridge Rd	Connecticut Ave	Jones Mill Rd	Sidepath	Chevy Chase Lake Master Plan	0.6
Jones Bridge Rd (North Side)	Wisconsin Ave	Connecticut Ave	Sidepath	Bethesda/Chevy Chase (East), Chevy Chase Lake Master Plan	0.2
Kenilworth / Montgomery	Kensington Pkwy	Jones Bridge Rd	Neighborhood Green- way	Bethesda/Chevy Chase (East)	0.3
Kennebec Ave	Sligo Creek Trail	Long Branch Trail	Neighborhood Green- way	Silver Spring/Takoma Park (East)	0.4
Kensington Pkwy	Rock Creek Trail	Husted Drwy	Sidepath	Kensington/Wheaton, Bethesda/Chevy Chase (East)	0.4

STREET	FROM	то	BIKEWAY	POLICY AREA	LENGTH (MI)
Kensington Pkwy	Husted Drwy	Connecticut Ave	Separated Bike Lanes	Bethesda/Chevy Chase (East)	0.4
Kensington Pkwy	Montgomery Ave	Rock Creek Trail	Sidepath	Kensington/Wheaton	1.3
Kent St	Kensington Pkwy	Stonebrook Dr	Neighborhood Green- way	Kensington/Wheaton	0.5
Layhill Rd	Park Vista Dr	Matthew Henson Trail	Sidepath and Conventional Bike Lanes	Aspen Hill	1.5
Layhill Rd	Matthew Henson Trail	Briggs Rd	Sidepath and Conven- tional Bike Lanes	Kensington/Wheaton	0.8
Layhill Rd (East Side)	Saddlebrook Connector	Glenallan Ave	Sidepath and Conven- tional Bike Lanes	Kensington/Wheaton	0.5
Linden La / Seminary Rd	Brookville Rd	Georgia Ave	Separated Bike Lanes / Sidepath	Silver Spring/Takoma Park (West)	0.3
Long Branch Trail	Maplewood Ave	Carroll Ave	Neighborhood Green- way	Silver Spring/Takoma Park (East)	0.2
Longdraft Rd	Birdsong La	Quince Orchard Rd	Sidepath	North Potomac	0.7
Lost Knife Rd	Montgomery Village Ave	Odendhal Ave	Separated Bike Lanes	Montgomery Village/Air- park	0.5
Luxmanor	Tilden La	Tuckerman La	Neighborhood Green- way	North Bethesda	0.7
Maple Ave	Grant Ave	District of Columbia	Neighborhood Green- way	Silver Spring/Takoma Park (East)	0.5
Massachusetts / Baltimore Ave	Massachusetts Ave	District of Columbia	Neighborhood Green- way / Sidepath	Bethesda/Chevy Chase (East), Bethesda/Chevy Chase (West)	0.9
Matthew Henson Trail Ext	Alderton Rd	Notley Rd	Off-Street Trail	Fairland/Colesville, Kens- ington / Wheaton, Aspen Hill	1.1
MD 355 North Breezeway	Observation Dr	Scenery Dr	Sidepath	Germantown East	0.1
MD 355 North Breezeway	Ridge Rd	Germantown Rd	Sidepath	Germantown East, Germantown Town Center	1.1
MD 355 North Breezeway	Germantown Rd	City of Gaithersburg	Sidepath	Germantown East	0.4
MD 355 North Breezeway	Waters Discovery La	Dorsey Mill Rd	Sidepath	Germantown East	0.1
MD 355 North Breezeway	West Gude Dr	Mannakee St	Separated Bike Lanes	Derwood	0.4
MD 355 South Breezeway	Rossmore Dr	Fleming St	Sidepath	North Bethesda	0.4
MD 355 South Breezeway	Tuckerman Ln	I-270 Spur	Priority Shared Lane Markings	North Bethesda	0.1
Melrose St / Nevada Ave	Brookville Rd	Western Ave	Neighborhood Green- way	Bethesda/Chevy Chase (East)	0.2
Midcounty Hwy	Montgomery Village Ave	Goshen Rd	Sidepath and Bikeable Shoulders	Montgomery Village/Air- park	0.6

STREET	FROM	то	BIKEWAY	POLICY AREA	LENGTH (MI)
Midcounty Hwy	Goshen Rd	Washington Grove Ln	Sidepath and Bikeable Shoulders	Montgomery Village/Air- park, Gaithersburg City	0.8
Midcounty Hwy	Washington Grove Ln	Shady Grove Rd	Sidepath and Bikeable Shoulders	Derwood	1.0
Middlebrook Rd	I-270	Observation Dr	Sidepath	Germantown East	0.2
Middlebrook Rd (West Side)	Father Hurley Blvd	Locbury Dr	Sidepath	Germantown Town Center	0.2
Middlevale La / Garden Gate Rd	Briggs Rd	Randolph Rd	Sidepath	Kensington/Wheaton	0.4
Montgomery Village Ave (East Side)	Stedwick Rd	Midcounty Hwy	Sidepath	Montgomery Village/Air- park, Gaithersburg City	0.7
Montgomery Village Ave (East Side)	Midcounty Hwy	City of Gaithersburg	Sidepath	Montgomery Village/Air- park	0.3
Montrose Rd	Falls Rd	Montrose Rd	Sidepath	North Bethesda, Potomac	1.1
New Hampshire Ave (East Side)	Eldrid Dr	Jackson Rd	Sidepath	Fairland/Colesville	0.8
New Hampshire Ave (West Side)	Jackson Rd	Columbia Pike	Sidepath	Fairland/Colesville	0.8
New Hampshire Ave (West Side)	Columbia Pike	Lockwood Dr	Sidepath	White Oak	0.3
Nicholson Ct / Wyaconda Rd	Nebel St Ext	Schuylkill Rd	Separated Bike Lanes / Off-Street Trail	North Bethesda, White Flint	0.4
Oakview Dr	Northwest Branch Trail	New Hampshire Ave	Neighborhood Green- way	Silver Spring/Takoma Park (East)	0.7
Observation Dr (West Side)	Shakespeare Blvd	Germantown Rd	Sidepath	Germantown East	0.1
Old Georgetown Rd	Nicholson Ln	Tuckerman La	Sidepath	North Bethesda	0.7
Old Georgetown Rd (East Side)	Tuckerman La	Cheshire Dr	Separated Bike Lanes / Sidepath	North Bethesda	0.9
Old Georgetown Rd	Cheshire Dr	Charles St	Sidepath	North Bethesda, Bethesda/ Chevy Chase (East)	1.2
Olney-Laytonsville Rd	Town of Laytonsville	Fieldcrest Rd	Bikeable Shoulders	Rural East (East)	1.3
Olney-Laytonsville Rd	Fieldcrest Rd	Wickham Rd	Bikeable Shoulders	Rural East (East)	1.7
Olney-Laytonsville Rd	Wickham Rd	Olney Mill Rd	Bikeable Shoulders	Rural East (East)	1.0
Olney-Sandy Spring Rd	Dr. Bird Rd	Brooke Rd	Sidepath	Olney	1.0
Piedmont Crossing LP Trail	Amity Dr	Crabbs Branch Way	Off-Street Trail	Derwood	0.4
Randolph Rd - New Hampshire Ave	Randolph Rd	New Hampshire Ave	Neighborhood Green- way	Fairland/Colesville	1.0
Randolph Rd Breezeway	Denley Rd	Georgia Ave	Sidepath	Kensington/Wheaton	0.7

STREET	FROM	то	BIKEWAY	POLICY AREA	LENGTH (MI)
Randolph Rd Breezeway	Georgia Ave	Glenallan Rd	Sidepath	Kensington/Wheaton	0.3
Randolph Rd Breezeway	Glenallan Rd	Kemp Mill Rd	Sidepath	Kensington/Wheaton	0.9
Randolph Rd Breezeway	Fairland Rd	Columbia Pike	Sidepath	Fairland/Colesville	1.4
Ridge Rd	Little Seneca Pkwy	Snowden Farm Pkwy	Sidepath	Clarksburg	1.1
Ridge Rd	Midcounty Hwy	Brink Rd	Sidepath	Clarksburg	0.4
River Rd	Willard Rd	Gary Rd	Bikeable Shoulders	Rural West, Potomac	13.3
Rock Creek - Grubb Rd	Rock Creek Trail	Grubb Rd	Neighborhood Green- way	Silver Spring/Takoma Park (West)	0.6
Rossmore Dr	Old Georgetown Rd	Bethesda Trolley Trail	Neighborhood Green- way	North Bethesda	0.8
Seven Locks Rd	Montrose Rd	Tuckerman La	Sidepath and Bikeable Shoulders	Potomac	1.2
Silver Spring - Glenmont Neigh- borhood Greenway	Windham La	Forest Glen Rd	Sidepath	Kensington/Wheaton	0.4
Strathmore Ave	Strathmore Trail	Kenilworth Ave	Sidepath	North Bethesda	0.4
Strathmore Ave - Weymouth St	Strathmore Ave	Weymouth St	Neighborhood Green- way	North Bethesda	0.5
Summit Ave / Cedar La	Knowles Ave	Rock Creek Trail	Sidepath	Kensington/Wheaton	1.3
Takoma Ave	Gist Ave	Metropolitan Branch Trail	Neighborhood Green- way	Silver Spring/Takoma Park (East)	0.4
Tilden Ln	Danville Dr	Old Georgetown Rd	Sidepath	North Bethesda	0.5
Trail	Henderson Ave	Arcola Ave	Off-Street Trail	Kensington/Wheaton	0.2
Twinbrook - Veirs Mill Rd Con- nector	Veirs Mill Rd	Rock Creek Mill Rd	Off-Street Trail	North Bethesda	0.6
University Blvd Breezeway	Dayton St	Arcola Ave	Sidepath	Kensington/Wheaton	0.9
University Blvd Breezeway	Arcola Ave	Lorain St	Sidepath	Kensington/Wheaton	1.1
University Blvd Breezeway	Lexington Dr	Franklin Ave	Sidepath	Kensington/Wheaton, Silver Spring/Takoma Park (East)	0.7
University Blvd Breezeway	Franklin Ave	Piney Branch Rd	Sidepath / Separated Bike Lanes	Silver Spring/Takoma Park (East), Long Branch Sector Plan	1.0
US 29 Corridor Breezeway	Cherry Hill Rd	Tech Rd	Sidepath	Fairland/Colesville	0.5
US 29 Corridor Breezeway	Lockwood Dr	Southwood Ave	Sidepath	Kensington/Wheaton, White Oak	0.7

STREET	FROM	то	BIKEWAY	POLICY AREA	LENGTH (MI)
US 29 Corridor Breezeway	Southwood Ave	University Blvd	Sidepath / Neighbor- hood Greenway	Kensington/Wheaton	0.5
US 29 Corridor Breezeway	University Blvd	Franklin Ave	Neighborhood Green- way / Off-Street Trail	Silver Spring/Takoma Park (East)	0.9
US 29 Corridor Breezeway	Caroline Ave	Worth Ave	Sidepath	Silver Spring/Takoma Park (East)	0.2
US 29 Corridor Breezeway	Franklin Ave	Sligo Creek Pkwy	Neighborhood Green- way	Silver Spring/Takoma Park (East)	0.1
Veirs Mill Rd Breezeway	Twinbrook Pkwy	Aspen Hill Rd	Sidepath	North Bethesda	0.5
Veirs Mill Rd Breezeway	Aspen Hill Rd	Montrose Pkwy	Sidepath	Aspen Hill	0.9
Washington Grove La	Emory Grove Rd	Amity Dr	Sidepath	Derwood	0.2
Waters Landing Dr	Father Hurley Blvd	Crystal Rock Dr	Sidepath	Germantown West	0.4
Wayne Ave	Cedar St	Whitney St	Sidepath	Silver Spring/Takoma Park (East)	0.6
Westlake Dr	Tuckerman La	Democracy Blvd	Sidepath	Potomac	1.1
Windham La	Georgia Ave	Sligo Creek Trail	Neighborhood Green- way	Kensington/Wheaton, Wheaton CBD	0.8
Wolf Dr	New Hampshire Ave	Kara La	Sidepath	Fairland/Colesville	0.1
Woodfield Rd	Airpark Rd	Muncaster Mill Rd	Sidepath	Montgomery Village/Air- park	0.6
Woodfield Rd	Muncaster Mill Rd	Emory Grove Rd	Sidepath	Montgomery Village/Air- park	0.8

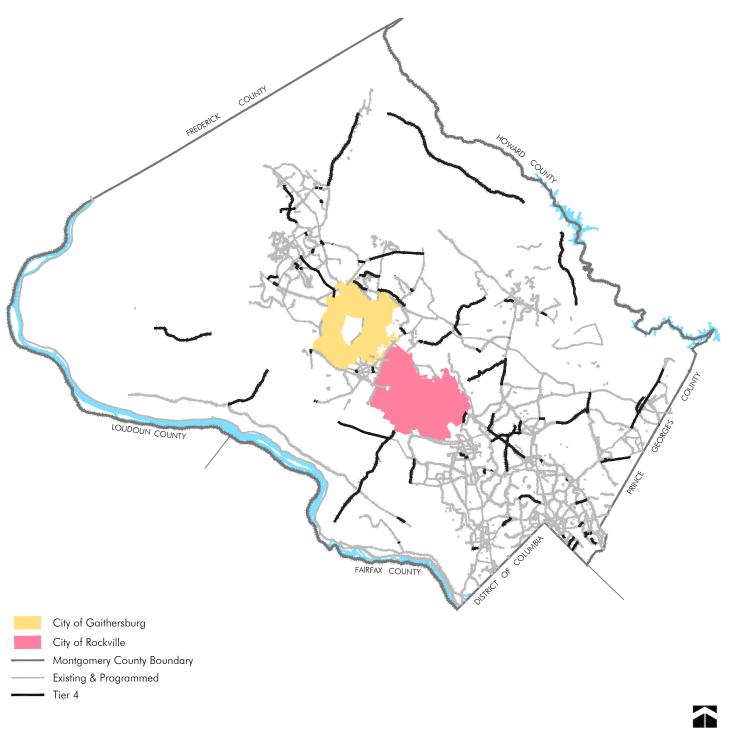


Tier 4 Bikeway Projects

Tier 4 projects are recommended to be substantially completed within 25 years of approval of the Bicycle Master Plan. These projects include:

- All remaining bikeways that are recommended for completion within the 25-year life of the plan.
- Several heavily-used recreational bicycling routes.





Tier 4 Bikeways

STREET	FROM	то	BIKEWAY	POLICY AREA	LENGTH (MI)
Baltimore Ave	Philadelphia Ave	District of Columbia	Neighborhood Gre- enway	Silver Spring/Takoma Park (East)	0.4
Bowie Mill Rd	Muncaster Mill Rd	Cashell Rd	Sidepath	Rural East (East), Olney	2.4
Bradley Blvd	Wilson La	Fairfax Rd	Sidepath and Conventional Bike Lanes	Bethesda/Chevy Chase (East)	0.3
Briggs Rd	Layhill Rd	Middlevale La	Sidepath	Kensington/Wheaton	0.3
Cedar Ave	District of Columbia	Philadelphia Ave	Neighborhood Gre- enway	Silver Spring/Takoma Park (East)	0.4
Centerway Rd	Montgomery Village Ave	Goshen Rd	Sidepath	Montgomery Village/Air- park	0.7
City Hall Parking Lot	Philadelphia Ave	Grant Ave	Off-Street Trail	Silver Spring/Takoma Park (East)	0.1
Clopper Rd (East)	Kingsview Rd	Germantown Rd	Sidepath	Germantown West	0.3
Connecticut Ave	Manor Rd	Chevy Chase Lake Dr	Separated Bike Lanes	Chevy Chase Lake Master Plan	0.2
Connecticut Ave (West Side)	Randolph Rd	Veirs Mill Rd	Sidepath / Con- tra-Flow Bike Lane	Kensington/Wheaton	0.4
Connecticut Ave (West Side)	Veirs Mill Rd	Denfeld Ave	Sidepath	Kensington/Wheaton	0.9
Connecticut Ave (West Side)	Denfeld Ave	Farragut Ave	Sidepath	Kensington/Wheaton	0.5
Connecticut Ave (West Side)	Laird Pl	Newdale Rd	Sidepath	Chevy Chase Lake Master Plan	0.0
Corridor Cities Transitway Trail	Century Blvd	City of Gaithersburg	Off-Street Trail	Germantown Town Center, Germantown West, North Potomac	2.8
Crabbs Branch Way (East)	Northern Terminus	Shady Grove Rd	Sidepath	Derwood	0.4
Crystal Rock Dr	Middlebrook Rd	Bowman Mill Dr Ext	Sidepath	Germantown West	0.2
Dalewood Dr / Dean Rd	Weller Rd	Randolph Rd	Neighborhood Gre- enway	Kensington/Wheaton	0.4
Damascus Rd	Stanley Hills Way	Georgia Ave	Bikeable Shoulders	Damascus, Rural East (West), Rural East (East)	8.4
Dennis Ave	Douglas Ave	Edgewood Ave	Sidepath	Kensington/Wheaton	0.1
Dr. Bird Rd	Olney-Sandy Spring Rd	Norwood Rd	Sidepath	Rural East (East)	0.3
Emory Grove Rd	Goshen Rd	Strawberry Knoll Rd	Sidepath	Montgomery Village/Air- park	0.3
Emory Grove Rd	Strawberry Knoll Rd	Woodfield Rd	Sidepath	Montgomery Village/Air- park	0.9
Emory Grove Rd	Woodfield Rd	Washington Grove Ln	Sidepath	Montgomery Village/Air- park	0.4

STREET	FROM	то	BIKEWAY	POLICY AREA	LENGTH (MI)
Executive Blvd	Marinelli Rd	Woodglen Dr	Separated Bike Lanes	White Flint	0.3
Fairland Rd	Old Columbia Pike	Briggs Chaney Rd	Sidepath	Fairland/Colesville	0.2
Falls Rd	Dunster Rd	River Rd	Bikeable Shoulders	Potomac	3.8
Falls Rd	River Rd	MacArthur Blvd	Bikeable Shoulders	Potomac	2.0
Flower Ave	Carroll Ave	Sligo Creek Trail	Neighborhood Gre- enway	Silver Spring/Takoma Park (East)	0.4
Forest Glen / Linden	Seminary Rd	Darcy Forest Dr	Sidepath	Kensington/Wheaton	0.2
Franklin Ave	Worth Ave	University Blvd	Sidepath	Silver Spring/Takoma Park (East)	0.6
Frederick Rd (West Side)	Shakespeare Blvd	Germantown Rd	Sidepath	Germantown East	0.2
Georgia Ave North Breezeway	Emory La	Norbeck Rd	Sidepath	Olney	0.2
Georgia Ave North Breezeway	Norbeck Rd	Connecticut Ave	Sidepath	Aspen Hill	1.2
Germantown - Burtonsville Breezeway	Montgomery Village Ave	Woodfield Rd	Off-Street Trail	Montgomery Village/Air- park	2.7
Germantown - Grosvenor Breezeway	Piney Meetinghouse Rd	Falls Rd	Off-Street Trail	Potomac, Rural West	2.6
Germantown - Life Sciences Center Breezeway	Germantown Rd	Crystal Rock Dr	Separated Bike Lanes	Germantown Town Center	0.2
Germantown - Life Sciences Center Breezeway	Cyrstal Rock Dr	Great Seneca Hwy	Sidepath	Germantown West	0.1
Germantown Rd (North Side)	Frederick Rd	Scenery Dr	Sidepath	Germantown East	0.1
Goldenrod La	Germantown Rd	Observation Dr	Sidepath	Germantown East	0.2
Greencastle Rd	Old Columbia Pike	Greencastle Ridge Ter	Sidepath and Conventional Bike Lanes	Fairland/Colesville	0.1
Hathaway Dr / Valleywood Dr	Flack St	Randolph Rd	Sidepath / Off-Street Trail	Kensington/Wheaton	0.5
Hopkins Rd	Clopper Rd	Father Hurley Blvd	Sidepath	Germantown West	0.6
Johns Hopkins Dr (West) Side	Belward Campus Dr	Key West Ave	Separated Bike Lanes	R&D Village	0.1
Kenilworth Ave	Montrose Ave	Oxford St	Neighborhood Gre- enway	North Bethesda	0.1
Kenilworth Pkwy / Montrose Ave / Oxford St	Montrose Ave	Oxford St	Neighborhood Gre- enway	North Bethesda	0.1
Little Seneca Pkwy	Snowden Farm Pkwy	Ridge Rd	Sidepath	Clarksburg	0.3
Little Seneca Pkwy (North Side)	Broadway Ave	Observation Dr Ext	Sidepath	Clarksburg	0.4

STREET	FROM	то	BIKEWAY	POLICY AREA	LENGTH (MI)
Little Seneca Pkwy (North Side)	Observation Dr Ext	Frederick Rd	Sidepath	Clarksburg	0.3
Manor Rd	Connecticut Ave	Jones Bridge Rd	Sidepath	Chevy Chase Lake Master Plan	0.4
Maple Ave	Kennebec Ave	Hilltop Rd	Neighborhood Gre- enway	Silver Spring/Takoma Park (East)	0.3
Maplewood Ave	Maple Ave	Long Branch Pkwy	Neighborhood Gre- enway	Silver Spring/Takoma Park (East)	0.3
MD 355 North Breezeway	Little Seneca Pkwy	Dorsey Mill Rd	Sidepath	Clarksburg, Germantown East	0.9
Metropolitan Branch Trail (Ultimate)	King St	Fenton St	Off-Street Trail	Silver Spring CBD	0.2
Midcounty Hwy	Great Seneca Creek	Montgomery Village Ave	Sidepath	Montgomery Village/Air- park, Gaithersburg City	0.8
Montgomery Village Ave (East Side)	Stewartown Rd	Stedwick Rd	Sidepath	Montgomery Village/Air- park	0.2
Morningwood Dr	Headwaters Rd	Olney #1	Sidepath	Olney	0.5
Muncaster Mill Rd	Bowie Mill Rd	ICC Trail	Sidepath and Bikeable Shoulders	Rural East (East)	0.5
Muncaster Mill Rd	Avery Rd	Emory Ln	Sidepath and Bikeable Shoulders	Olney	0.3
Needwood Rd	Redland Rd	ICC Trail	Sidepath	Derwood, Rural East (East)	1.8
Neighborhood Connector	Reedie Dr	University Blvd	Neighborhood Con- nector	Wheaton CBD	0.1
New Hampshire Ave	Georgia Ave	Olney-Sandy Spring Rd	Bikeable Shoulders	Rural East (East)	4.0
New Hampshire Ave - FDA Blvd Connector	New Hampshire Ave	FDA Blvd	Off-Street Trail	White Oak	1.4
New Hampshire Ave (East Side)	ICC Trail	Wolf Dr	Sidepath	Fairland/Colesville	0.2
New Hampshire Ave (West Side)	ICC Trail	Randolph Rd	Sidepath	Fairland/Colesville	0.8
Newdale Rd	Terminus	Connecticut Ave	Sidepath	Chevy Chase Lake Master Plan	0.1
Norbeck Rd (North)	Bauer Dr	Muncaster Mill Rd	Neighborhood Gre- enway	Aspen Hill	2.2
Norbeck Rd (North)	Muncaster Mill Rd	Georgia Ave	Sidepath	Olney	0.2
Observation Dr Ext (West Side)	Roberts Tavern Dr	Little Seneca Pkwy	Sidepath	Clarksburg	1.3
Old Columbia Pike	Briggs Chaney Rd	Fairland Rd	Sidepath and Conventional Bike Lanes	Fairland/Colesville	0.7
Parkland Dr	Independence St	Veirs Mill Rd	Sidepath	Aspen Hill	0.8
Persimmon Tree Rd	Eggert Rd	MacArthur Blvd	Sidepath	Potomac	0.1

STREET	FROM	то	BIKEWAY	POLICY AREA	LENGTH (MI)
Piney Branch Rd	Philadelphia Ave	Ray Dr	Sidepath	Silver Spring/Takoma Park (East)	0.2
Piney Branch Rd	Silver Spring Ave	Sligo Creek Pkwy	Sidepath	Silver Spring/Takoma Park (East)	0.3
Quince Orchard Rd	Darnestown Rd	Dufief Mill Rd	Sidepath	North Potomac	0.2
Randolph Rd	Rock Creek Trail	Veirs Mill Rd	Sidepath	Kensington/Wheaton	0.4
Randolph Rd Breezeway	Veirs Mill Rd	Connecticut Ave	Sidepath	Kensington/Wheaton	0.5
Randolph Rd Breezeway	Connecticut Ave	Denley Rd	Sidepath	Kensington/Wheaton	0.7
Randolph Rd Breezeway	Kemp Mill Rd	New Hampshire Ave	Sidepath	Fairland/Colesville	1.7
Ridge Rd	Bethesda Church Rd	Valley Park Dr	Sidepath	Damascus	0.8
Ridge Rd	Valley Park Dr	Sweepstakes Rd	Sidepath	Damascus	0.9
Ridge Rd	Sweepstakes Rd	Skylark Rd	Sidepath	Clarksburg, Damascus, Rural East (West)	2.2
River Rd	Bradley Blvd	Seven Locks Rd	Sidepath	Potomac	0.4
Security Ln	Rockville Pike	Woodglen Dr	Separated Bike Lanes	White Flint	0.2
Seminary Rd	Forest Glen Rd	2nd Ave	Conventional Bike Lanes	Kensington/Wheaton, Silver Spring/Takoma Park (West)	0.7
Seneca Rd	Darnestown Rd	River Rd	Bikeable Shoulders	Rural West	2.8
Seven Locks Rd	Tuckerman La	Democracy Blvd	Sidepath and Bikeable Shoulders	Potomac	1.2
Sidepath	Little Seneca Pkwy	Black Hills Regional park	Sidepath	Clarksburg	0.2
Snouffer School Rd	Sweet Autumn Dr	Woodfield Rd	Sidepath	Montgomery Village/Air- park	0.2
Snowden Farm Pkwy	Little Seneca Pkwy	Ridge Rd	Sidepath	Clarksburg	0.2
Stedwick Rd	Watkins Mill Rd	Montgomery Village Ave	Sidepath	Montgomery Village/Air- park	0.3
Stewartown Rd Ext	Watkins Mill Rd	Montgomery Village Ave	Sidepath	Montgomery Village/Air- park	0.3
Street B-25	Ridge Rd	Seneca Meadows Pkwy	Separated Bike Lanes	Germantown Town Center	0.2
Trail	Stoneybrook Dr	Linden La	Off-Street Trail	Kensington/Wheaton	0.4
Travilah Rd	Darnestown Rd	Dufief Mill Rd	Sidepath	Rural West	0.1
Twinbrook Pkwy (East Side)	Veirs Mill Rd	Halpine Rd	Sidepath	North Bethesda	0.5

STREET	FROM	то	BIKEWAY	POLICY AREA	LENGTH (MI)
US 29 Corridor Breezeway	Blackburn Rd	Briggs Chaney Rd	Sidepath	Fairland/Colesville	1.7
US 29 Corridor Breezeway	Blackburn Rd	Briggs Chaney Rd	Sidepath	Fairland/Colesville	1.7
US 29 Corridor Breezeway	Briggs Chaney Rd	Tech Rd	Sidepath	Fairland/Colesville	1.6
Veirs Mill Rd Breezeway	Montrose Pkwy	Randolph Rd	Separated Bike Lanes / Sidepath	Kensington/Wheaton	0.6
Veirs Mill Rd Breezeway	Randolph Rd	Connecticut Ave	Sidepath	Kensington/Wheaton	0.5
Veirs Mill Rd Breezeway	Connecticut Ave	Newport Mill Rd	Sidepath	Kensington/Wheaton	0.7
Veirs Mill Rd Breezeway	Newport Mill Rd	College View Dr	Separated Bike Lanes / Sidepath	Kensington/Wheaton	0.4
Weymouth St	Montrose Ave	Knowles Ave	Sidepath	North Bethesda	0.0
White Oak - FDA Connector	Lockwood Dr	FDA	Off-Street Trail	White Oak	0.1
Whites Ferry Rd	Town of Poolesville	Darnestown Rd	Bikeable Shoulders	Rural West	3.1



Prioritization of Bicycle Parking Stations

The table below prioritizes implementation of the bicycle parking stations into four tiers (Tier 1, Tier 2, Tier 3 and Tier 4) based on anticipated demand (see Appendix G for a description of how demand was assessed). All bicycle parking stations are recommended to be completed during the life of this plan, although some are contingent upon development approvals, which may occur beyond the life of this master plan. Construction of bicycle parking stations will be a cooperative effort between Montgomery County, transit agencies and private development, depending on a number of factors, including development opportunities, funding sources and property ownership. Operation of the Bethesda South and Silver Spring bicycling stations are recommended to coincide with operation of the Purple Line.

Prioritization of Bicycle Parking Stations

TRANSIT CORRIDOR	MINIMUM NUMBER OF SPACES				
TRANSIT CORRIDOR	LONG-TERM	SHORT-TERM			
TIER 1					
Red Line, Purple Line	330	130			
Red Line	300	100			
Red Line	400	150			
Red Line, CCT	330	110			
Red Line, Purple Line	600	170			
Red Line	400	100			
Red Line	250	50			
TIER 2					
Red Line	100	50			
Red Line	200	50			
MARC	30	10			
Red Line	350	100			
Red Line	200	50			
Purple Line	20	10			
TIER 3					
Purple Line	20	10			
MARC	30	10			
	Red Line Red Line, CCT Red Line, Purple Line Red Line Red Line Red Line Red Line Red Line Purple Line Purple Line Purple Line	TRANSIT CORRIDOR LONG-TERM Red Line, Purple Line 330 Red Line 400 Red Line, CCT 330 Red Line, Purple Line 600 Red Line 400 Red Line 250 Red Line 100 Red Line 200 MARC 350 Red Line 200 Purple Line 20 Purple Line 20			

STATION	TRANSIT CORRIDOR	MINIMUM NUMBER OF SPACES		
SIATION	TRANSII CORRIDOR	LONG-TERM	SHORT-TERM	
LSC Belward	ССТ	80	20	
LSC Central	сст	60	20	
LSC West	сст	90	10	
Takoma / Langley	Purple Line	20	10	
White Flint (proposed)	MARC	20	10	
TIER 4				
Boyds	MARC	20	10	
Long Branch	Purple Line	30	10	
Lyttonsville	Purple Line	50	10	
Piney Branch Road	Purple Line	10	10	
Washington Grove	MARC	10	10	
Woodside	Purple Line	20	10	



Caption: A bicycle parking station in Boulder, Colorado. Photo: Matt Johnson

Prioritization of Bicycle Supportive Programs

The table below identifies target dates for initiating bicycle supportive programs.

Prioritization of Bicycle Supportive Programs

PROGRAM	TARGET
1.9 Bicycle Pedestrian Priority Areas	Immediately
2.1 Bikeways Program - Minor Projects	Immediately
2.2 Roadway and Bikeway Related Maintenance	Three years after plan approval
2.3 Snow Removal / Wind / Rain Storms	Three years after plan approval
2.4 Resurfacing: Primary/Arterial AND Sidewalk & Curb Replacement	Three years after plan approval
3.1 BikeMontgomery Outreach Program	Three years after plan approval
3.2 Bicycle Master Plan Monitoring Report	Ongoing
3.3 Neighborhood Greenway Program	Immediately
3.4 Bicycle Parking Program	Two years after plan approval
3.5 Public School Bicycle Education	Three years after plan approval
3.6 Bicycle Facility Education	Immediately
3.7 Bicycle Count Program	One year after plan approval
3.8 Countywide Wayfinding Plan	Three years after plan approval

Prioritization of Bicycle Supportive Laws, Regulations and Policies

The table below identifies target dates for changes to laws, regulations and policies.

Prioritization of Bicycle Supportive Laws, Regulations and Policies

LAW, REGULATION AND POLICY	TARGET COMPLETION			
ROADWAY LAWS AND POLICIES				
2.1 Authorize Lower Posted Speed Limits	Ongoing			
2.2 Repeal the Mandatory Use Law	Ongoing			
2.3 Conduct a "Rules of the Road" Assessment	Two years after plan approval			
2.4 Replace the State's Marked Bike Lane Policy	Ongoing			
2.5 Develop a County Policy on E-Bikes	Two years after plan approval			
DESIGN STANDARDS AND PRACTICES				
2.6 Establish Level of Traffic Stress Targets	One year after plan approval			
2.7 Update Context Sensitive Road Design Standards	11/1/2019 (Per Vision Zero Action Plan)			
2.8 Review all Designed Projects Against Best Practices	One year after plan approval			
2.9 Make Separated Bikeways the Preferred Bikeway Facility Type	One year after plan approval			
2.10 Make Protected Intersections the Preferred Intersection Type	One year after plan approval			
2.11 Consolidate Driveways along Master-Planned Bikeways	Two years after plan approval			
2.12 Develop a Shared Lane Marking Policy	Two years after plan approval			
2.13 Develop Bicycle Parking Standards for County Facilities	One year after plan approval			
2.14 Reassess Road Code Urban Area Boundaries	One year after plan approval			
2.15 Establish Standards for Trail Crossings at Major Roads	One year after plan approval			

LAW, REGULATION AND POLICY	TARGET COMPLETION
MAINTENANCE	
2.16 Develop Protocols for Bicycle Facility Closures and Detours	Two years after plan approval
OTHER	
2.17 Establish Vision Zero Collision Review Team	12/15/2017
2.18 Provide Open Access to Crash Data	One year after plan approval
2.19 Update the Zoning Code	One year after plan approval
2.20 Revise the Bicycle to School Policy	Two years after plan approval



