MONTGOMERY COUNTY BICYCLE MASTER PLAN PRELIMINARY DRAFT

October 17, 2017

EXECUTIVE SUMMARY

- A replacement for the 1978 Master Plan of Bikeways, 2005 Countywide Bikeways Functional Master Plan and all bikeway recommendations in functional plans, area master plans and sector plans.
- A new bikeway classification system that organizes bikeways based on their amount of separation from traffic.
- A network of 1,200 miles of bikeways, including 63 miles of shared use paths, 189 miles of trails, 131 miles of bikeable shoulders and 101 miles of separated bike lanes.
- The Breezeway Network, a high-capacity network of arterial bikeways between major activity centers, that enable faster bicyclists to comfortably and conveniently travel with slower bicyclists and pedestrians.
- Long-term bicycle parking stations at all WMATA Metrorail Red Line stations and at the higher demand MARC, Purple Line and Corridor Cities Transitway (CCT) stations to encourage bicycling to transit.
- Bikeway recommendations prioritized based on defined values.
- Programs and a legal and policy framework to encourage bicycling.
- A monitoring report that tracks progress in implementing the plan's vision through its goals, objectives, metrics and targets and that enables transparency and accountability in plan implementation.

Contents

INTRODUCTION

Creating a world-class bicycling community requires a commitment on many levels. Leading bicycling communities have integrated bicycle planning and implementation into the fabric of their decision making, established innovative bicycle facility design guidelines and made steady investments in bicycling infrastructure, block by block and curb by curb, to build their networks. In some ways, many of these communities have integrated bicycling so deeply into their transportation planning processes that a separate bicycle master plan becomes superfluous.

In Montgomery County, a bicycle master plan is essential to creating a bicycle-friendly place because bicycling has yet to be fully integrated into the planning process. This plan sets the stage for a cultural shift, where bicycling is so embedded in our way of so life that it does not require special advocacy. The master plan serves as a reference to help answer the question of whether a specific planning or design decision will help move the County toward the plan's vision.

An ideal plan vision reflects the unique priorities of its communities and sets goals that are served by clear and coherent strategies for improving bicycling conditions. The Bicycle Master Plan vision is achieved by a robust network of low-stress bikeways and bicycle parking that prioritizes bicycling as a mode of travel for people of all ages and bicycling abilities. And it establishes policies and programs that integrate bicycling into decision making at all levels.

The ultimate impact of a well-made plan is dependent on the degree to which it is implemented. The Montgomery County Bicycle Master Plan is the starting point for achieving this vision. It is up to you – the elected officials, department heads, staff and advocacy groups, and the average citizen to make this plan a reality.

master plan purpose

The Bicycle Master Plan sets forth a vision for Montgomery County as a world-class bicycling community, where people in all areas of the County have access to a comfortable, safe and connected bicycle network, and where bicycling is a viable transportation option that improves the quality of life.

The plan focuses on increasing bicycling among what surveys consistently reveal as a majority of the public who would like to bicycle more but are concerned for their safety. These bicyclists are less tolerant of riding close to traffic and require physical separation from the road to be comfortable riding on wider and faster streets. They represent about 50 percent of the population and, therefore, present the greatest opportunity to increase bicycling in Montgomery County.

master plan framework

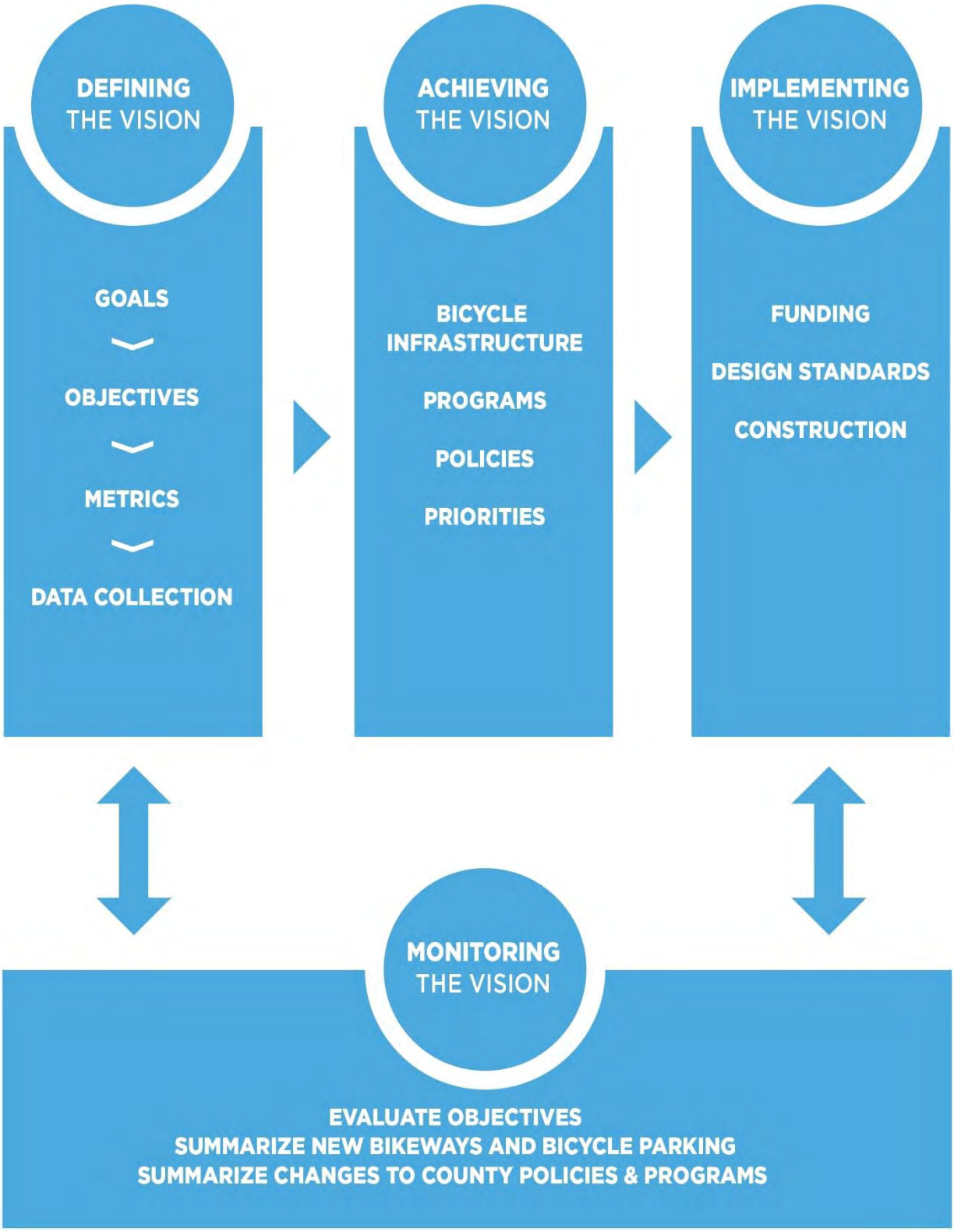
The Bicycle Master Plan is organized in four sections. These sections are described below and shown in the image below.

The first section is **Defining the Vision** by imagining a future that meets the goal of providing access to a comfortable, safe and connected bicycle network, and expressing that vision through the goals and objectives of the plan.

The second section is **Achieving the Vision** by describing specific actions that the government, property owners, stakeholders and the public can take to fulfill the vision. These actions include establishing bicycling-supportive infrastructure, programs and policies needed to make the vision a reality.

The third section consists of **Implementing the Vision** by incorporate bicycling into all aspects of decision-making, by developing design standards that will ensure high-quality bikeway design, leveraging public and private projects to incorporate the proposed bicycling network into their projects and establishing funding mechanisms to implement the recommendations in this plan.

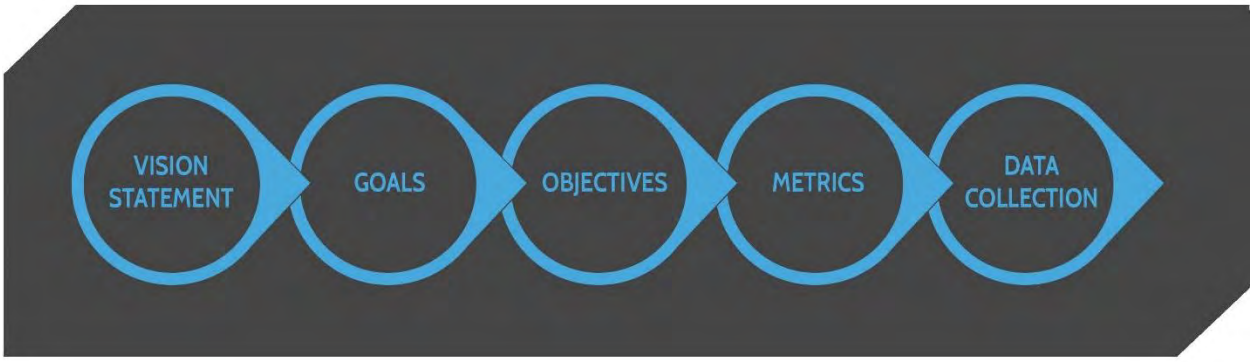
The fourth section consists of **Monitoring the Vision** by setting up an ongoing monitoring and evaluation program to track how well the vision of the plan is fulfilled by continually evaluating the goals and objectives of the plan. This monitoring program supports the implementation of the plan by providing an ongoing assessment of how effective Montgomery County is in creating the bicycle environment envisioned in the plan.


DEFINING
THE VISION
GOALS
OBJECTIVES
METRICS
DATA COLLECTION
ACHIEVING
THE VISION
BICYCLE
INFRASTRUCTURE
PROGRAMS
POLICIES
PRIORITIES
IMPLEMENTING
THE VISION
FUNDING
DESIGN STANDARDS
CONSTRUCTION
MONITORING
THE VISION
EVALUATE OBJECTIVES
SUMMARIZE NEW BIKEWAYS AND BICYCLE PARKING
SUMMARIZE CHANGES TO COUNTY POLICIES & PROGRAMS

DEFINING THE VISION

An essential first step in preparing the Bicycle Master Plan is to define the plan's vision. This effort begins by imagining a future where all residents have access to a comfortable, safe and connected bicycle network, and expressing that vision through the goals and objectives of this plan.

Defining a vision for the Bicycle Master Plan does not simply mean stating the goals on paper. It also lays the foundation for a strong monitoring program, which supports the implementation of the plan by providing an ongoing assessment of how effective Montgomery County is in meeting the plan's goals and objectives over the next 20 years. Of course, a vision is only as good as its components and therefore the Bicycle Master Plan proposes a clear and measurable vision.



The **vision statement** paints a clear picture of what the plan is intended to achieve. It is further explained through goals that identify the conditions needed to achieve the vision statement.

Goals are broad conditions that are needed to achieve the plan's vision statement. They are general and brief and can always be improved. Goals do not prejudge a solution, but rather articulate the conditions that might lead to a particular solution. Each goal is described by one or more objectives that indicate the steps that need to be taken to realize that goal. Goals are only as effective as the objectives that shape them.

Objectives are specific conditions that must be met to advance a goal. They are achievable, measurable and time-specific. Objectives are effective when they show a meaningful change among different scenarios. They do not prejudge a solution, but rather articulate the conditions that might lead to a particular solution. Objectives are more likely to be evaluated when they are carefully defined, avoid subjective interpretation and do not require substantial new data collection.

Metrics are the standards of measurement applied to objectives. They determine the data needed to assess how well the objectives are being met.

Data Collection is the gathering of specific information required to derive each metric. It indicates the source of the data and whether the data is currently available, could be available with modifications to existing survey instruments or needs to be collected through a new survey.

the vision

Montgomery County will become a world-class bicycling community. Everyone in Montgomery County will be able to travel by bicycle on a comfortable, safe and connected bicycle network. Bicycling will become a viable transportation option and elevate the quality of life in the County.

The vision is defined by four goals.

goals, objectives, metrics and targets

Source: Michael Tercha/Chicago Tribune

GOAL 1

Increase bicycling rates in Montgomery County

The most important measure of success for the Bicycle Master Plan is the extent to which the amount of bicycling increases in Montgomery County. Goal 1 evaluates how bicycling increases over time among different groups of people, destinations and trip types. Success in advancing this goal is largely driven by success in advancing the other three goals of the plan and, therefore, the recommendations for bicycle infrastructure, policies and programs.

1.1 OBJECTIVE

Increase the percentage of Montgomery County residents who commute by bicycle to # percent by 20##.

METRIC

Percentage of residents who commute by bicycle.

DATA REQUIREMENT (SOURCE)

- Method of transportation that people use for the longest distance segment of their trip to work (American Community Survey).

1.2 OBJECTIVE

Increase the percentage of people who commute by bicycle to Montgomery County's Transportation Management Districts (TMD) by 20## to:

- # percent in Downtown Silver Spring
- # percent in Downtown Bethesda
- # percent in North Bethesda
- # percent in Friendship Heights
- # percent in Greater Shady Grove
- # percent in White Oak Science Gateway (when funded)

METRIC

Percentage of commuters who bicycle as part of their commute to a Transportation Management District (Bethesda, Friendship Heights, North Bethesda, Shady Grove, Silver Spring, White Oak).

DATA REQUIREMENT (SOURCE)

- Number of respondents who bicycle to work by Transportation Management District (requires changes to the existing Commuter Survey).
- Number of respondents by Transportation Management District (Commuter Surveys).

1.3 OBJECTIVE

Increase the percentage of people who access a Montgomery County transit station by bicycle to:

- # percent for WMATA Red Line stations by 20##.
- # percent for MARC Brunswick Line stations by 20##.
- # percent for Purple Line stations by 20## (future objective when Purple Line opens).

METRIC

Percentage of boardings at rail stations that access the station by bicycle (Red Line, Brunswick Line, Purple Line).

DATA REQUIREMENT (SOURCE)

- Number of boardings at each Red Line, Brunswick Line and Purple Line station that are accessed by bicycle (WMATA, MTA).
- Number of boardings at each Red Line, Brunswick Line and Purple Line station (WMATA, MTA).

1.4 OBJECTIVE

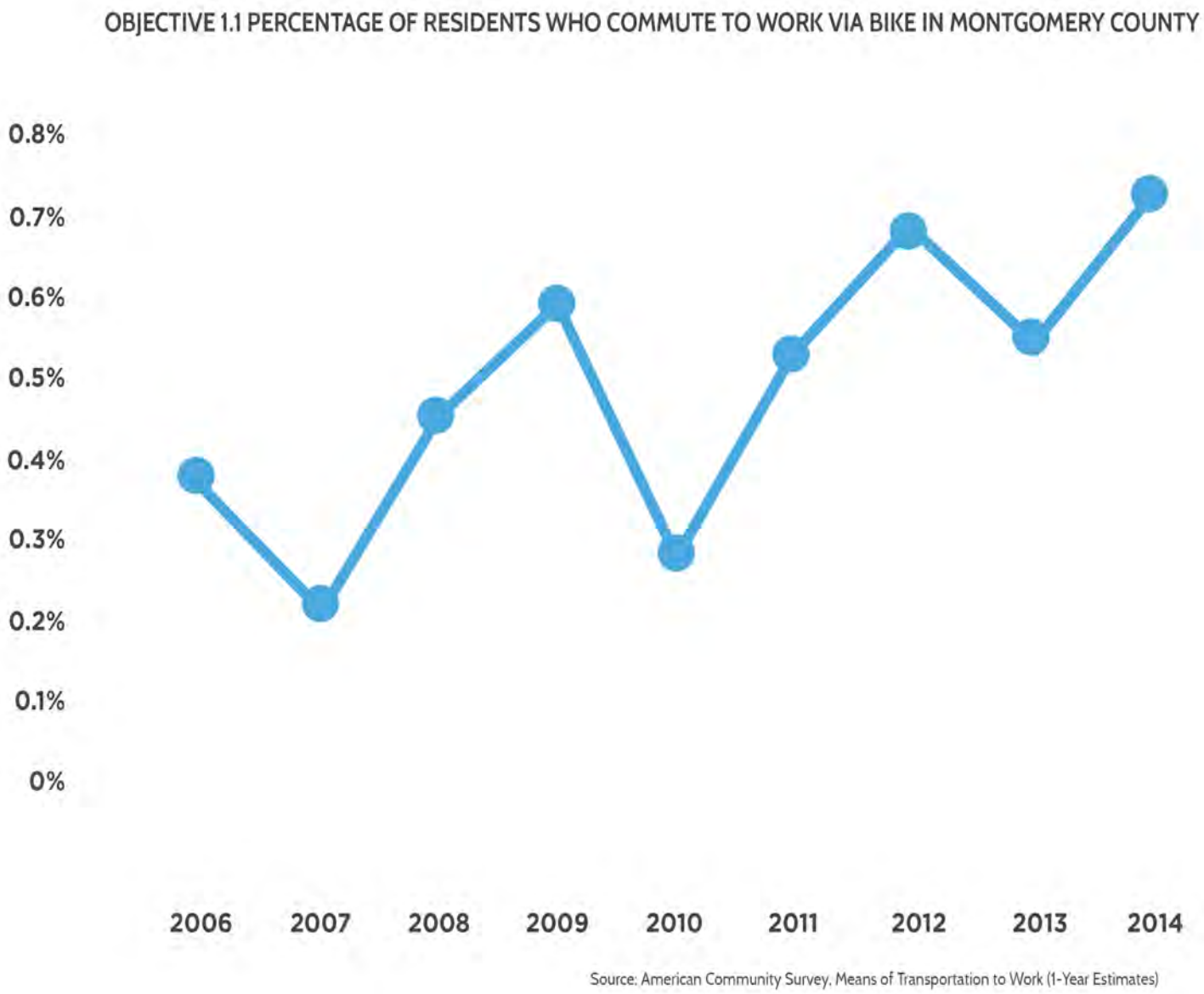
Increase the percentage of public elementary, middle and high school students who bicycle to school to # percent by 20##.

METRIC

Percentage of public school students who bicycle to elementary, middle and high school.

DATA REQUIREMENT (SOURCE)

- The number of elementary, middle and high school students who bicycle to school. (requires new survey conducted by Montgomery County Public Schools).



While bicycling represents only a small share of the trips to work by Montgomery County residents, it is growing. With the emergence of a robust bicycling network connecting people to jobs and transit, this number will continue to increase.

Montgomery County Planning Department Bicycle Stress Map

GOAL 2

Create a highly connected, convenient and low-stress bicycling network

Bicycling can become a mainstream mode of transportation in Montgomery County if a low-stress network is developed that enables people to travel to the places they want to go by bicycle. While about 75 percent [3] of the roads in the County are already low-stress, they are often surrounded by high speed and high volume roads, effectively creating "islands" of connectivity. Where feasible, reductions in traffic lanes and speeds can link these "islands;" where infeasible, bicycle infrastructure, such as sidepaths, separated bike lanes and conventional bike lanes, are needed.

Simply providing a comfortable bicycling network is insufficient if people do not have a secure place to leave their bicycles when they get to their destinations. This goal also considers bicycle parking at major destinations, such as transit stations, commercial areas and public facilities, including schools, libraries, recreation centers and parks.

[3] Based on a Level of Traffic Stress evaluation of all roads where it is legal to bicycle in Montgomery County.

2.1 OBJECTIVE

percent of potential bicycle trips can be made through a low-stress bicycle network by 20##.

METRIC

Percentage of potential bicycle trips that can be made on a low-stress bicycle network.

DATA REQUIREMENT (SOURCE)

- Level of Traffic Stress network (M-NCPPC).
- Regional Travel Demand Model Trip table (M-NCPPC).
- Bicycle trip length decay function (MWCOG Household Travel Survey).
- Location of dwelling units (M-NCPPC).

Note: See page X for a description of level of Traffic Stress.

2.2 OBJECTIVE

percent of dwelling units located within 2.0 miles of each Red Line, Brunswick Line, Purple Line and Corridor Cities Transitway station that will be connected to the rail station through a low-stress bicycling network by 20##.

METRIC

Percentage of dwelling units within 2.0 miles of Red Line, Brunswick Line, Purple Line, and Corridor Cities Transitway stations that can access the station on a low-stress bicycling network.

DATA REQUIREMENT (SOURCE)

- Level of Traffic Stress network (M-NCPPC).
- Location of existing and planned Metrorail, MARC, and Purple Line stations (M-NCPPC).
- Location of dwelling units (M-NCPPC).

2.3 OBJECTIVE

percent of dwelling units located within the attendance zone of elementary, middle and high schools will be connected to the school through a low-stress bicycle network by 20##.

METRIC

Percentage of dwelling units located within the attendance zone of elementary, middle and high schools that are connected to each school through a low-stress bicycle network.

DATA REQUIREMENT (SOURCE)

- Level of Traffic Stress network (M-NCPPC).
- Location of Montgomery County public schools (M-NCPPC).
- School boundaries (M-NCPPC).
- Location of dwelling units (M-NCPPC).

2.4 OBJECTIVE

percent of dwelling units located within 2.0 miles of public facilities will be connected to that facility through a low stress bicycling network by 20##.

METRIC

Percentage of dwelling units within 2.0 miles of each public library, recreation center and regional/ recreational park that can access the facility on a low-stress bicycling network.

DATA REQUIREMENT (SOURCE)

- Level of Traffic Stress network (M-NCPPC).
- Location of public libraries (M-NCPPC).
- Location of recreation centers (M-NCPPC).
- Location of regional and recreational parks (M-NCPPC).
- Location of dwelling units (M-NCPPC).

2.5 OBJECTIVE

By 20##, ## of 12 Red Line stations, ## of 11 Brunswick Line stations and ## of 11 Purple Line stations in Montgomery County will have a bike station.

METRIC

Number of rail stations in Montgomery County with a bike station (Red Line, Brunswick Line and Purple Line).

DATA REQUIREMENT (SOURCE)

- Location of bike stations (M-NCPPC).

2.6 OBJECTIVE

percent of Montgomery County public schools will have 1 bicycle parking space for every 20 students of planned capacity, and the bike racks will be of acceptable styles per the *Association of Pedestrian and Bicycle Professionals Bicycle Parking Guidelines 2nd Edition* by 20##.

METRIC

Percentage of Montgomery County public schools with at least 1 bicycle parking space for every 20 students of planned capacity, and the bike racks will be of acceptable styles per the *Association of Pedestrian and Bicycle Professionals Bicycle Parking Guidelines 2nd Edition.*

DATA REQUIREMENT (SOURCE)

- Number of bike racks at each Montgomery County public school (RackSpotter, www.rackspotter.com).
- Planned capacity at each Montgomery County public school (MCPS).

2.7 OBJECTIVE

percent of blocks in commercial areas will have the amount of short-term bicycle parking spaces required by the current zoning code by 20##.

METRIC

Percentage of blocks in commercial areas that have the amount of short-term bicycle parking spaces required by the current zoning code.

DATA REQUIREMENT (SOURCE)

- Number and locations of bike racks in Montgomery County (RackSpotter, www.rackspotter.com).
- Short-term bicycle parking requirements by zoning category (Montgomery County Planning Department).
- Existing land use in commercial areas (Montgomery County Planning Department).

2.8 OBJECTIVE

percent of Montgomery County public libraries and recreation centers will have 1 short-term bicycle parking space per 8,000 square feet of floor area and that are acceptable bike rack styles per the *Association of Pedestrian and Bicycle Professionals Bicycle Parking Guidelines 2nd Edition* by 20##.

METRIC

Percentage of Montgomery County public libraries and recreation centers with 1 short-term bicycle parking space per 8,000 sq. ft. of floor area and that are acceptable bike rack styles per the standard in the Assoc. of Pedestrian and Bicycle Professionals' *Bicycle Parking Guidelines 2nd Edition*.

DATA REQUIREMENT (SOURCE)

- Number and location of libraries and recreation centers (M-NCPPC).
- Square feet of floor area per library and recreation center (Department of General Services).

2.9 OBJECTIVE

percent of Montgomery County regional and recreational park facilities will have bike racks by 20##.

METRIC

Percentage of Montgomery County regional and recreational park facilities that have bike racks.

DATA REQUIREMENT (SOURCE)

- Location of regional and recreational parks (M-NCPPC).
- Locations of bike racks in Montgomery County (RackSpotter, www.rackspotter.com).

OBJECTIVE 2.2: PERCENTAGE OF DWELLING UNITS WITHIN 2.0 MILES OF EACH RED LINE STATION THAT ARE CONNECTED TO THE STATION THROUGH A LOW-STRESS BICYCLING NETWORK

Bike Lane on Carroll Avenue, Takoma Park

GOAL 3

Provide equal access to low-stress bicycling for all members of the community

Equal access to low-stress bicycling for all members of the community, including people with incomes below the average median income for the County, is a critical aspect of a world-class bike plan. Since many of these areas may be far from a Red Line, Brunswick Line or future Purple Line station, this goal also considers the ability of residents in these areas to access bus stops on a low-stress bicycling network.

3.1 OBJECTIVE

The percentage of bicycle trips that can be made on a low-stress bicycling network in Census tracts where the median income is below 60 percent of the County average median income will be the same as or greater than the County overall.

METRIC

Percentage of potential bicycle trips that can be made on a low-stress bicycling network in Census tracts where the median income is below 60 percent of the County average median income.

DATA REQUIREMENT (SOURCE)

- Level of Traffic Stress network (M-NCPPC).
- Regional Travel Demand Model Trip table (M-NCPPC).
- Bicycle trip length decay function (MWCOG Household Travel Survey).
- Location of dwelling units (M-NCPPC).
- Census tracts where the median income is below 60 percent of the County average median income (US Census).

3.2 OBJECTIVE

The percentage of dwelling units within 0.5 miles of the nearest Metrobus or RideOn bus stop that will be connected to the bus stop through a low-stress bicycling network in areas where the median income is below ## percent of the County average median income will be the same as or greater than the County overall.

METRIC

Percentage of dwelling units within 0.5 miles of the nearest Metrobus or RideOn bus stop that will be able to access the bus stop on a low-stress bicycling network in areas where the median income is below ## percent of the County average median income.

DATA REQUIREMENT (SOURCE)

- Level of Traffic Stress network (M-NCPPC).
- Location of bus stops (Montgomery County).
- Location of dwelling units (M-NCPPC).
- Areas where the median income is below ## percent of the County average median income (US Census).

GOAL 4

Improve the safety of bicycling

The intent of this goal is to make bicycling safe by reducing the rate of crashes at dangerous locations, thereby reducing injuries and eliminating fatalities. While safety can be improved by taking active measures to reduce travel speeds and providing separation from traffic, this goal will be evaluated by reactive metrics based on crash reports.

4.1 OBJECTIVE

Reduce the ratio of bicycle crashes to bicycle trips at the ## highest crash locations in the County to ## percent by 20##.

METRIC

The ratio of bicycle crashes to bicycle trips at the ## highest crash locations in the County.

DATA REQUIREMENT (SOURCE)

- A bicycle crash is when a bicycle collides with another vehicle, pedestrian, animal, road debris or other stationary obstructions, such as a tree or utility pole.
- Bicycle crash reports (Montgomery County CountyStat).
- Bicycle counts at major crash locations (requires new data collection).

4.2 OBJECTIVE

Eliminate bicycle deaths by 20## (based on adoption of Vision Zero by the Montgomery County Council in October 2016).

METRIC

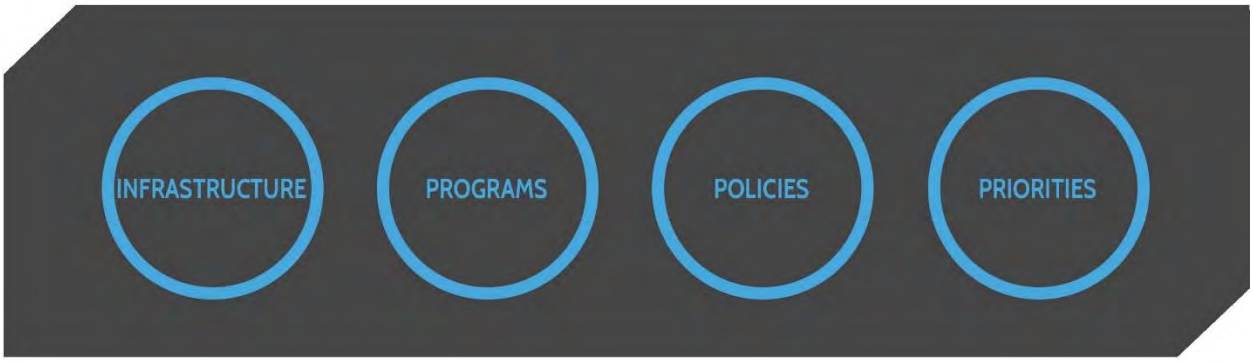
The number of bicyclist fatalities per year.

DATA REQUIREMENT (SOURCE)

- Bicycle crash reports (Montgomery County CountyStat).

ACHIEVING THE VISION

The second step in preparing the Bicycle Master Plan is to make recommendations on how to achieve the plan's vision. This section includes concrete actions that government, property owners, stakeholders and the public can take to fulfill the vision. It includes a network of bikeways and bicycle parking, and bicycling-supportive programs and policies.



Bicycle-supportive **infrastructure** focuses on a highly-connected and low-stress bikeway network. This network includes physical improvements on higher stress roads so that the 75 percent of roads and trails in Montgomery County that are already appropriate for people of all ages and bicycling abilities can be knitted together.

Bicycle-supportive infrastructure also includes adequate and secure bicycle parking, since many people will not ride a bicycle if they are concerned that their bicycle will be damaged or stolen. This infrastructure includes privately maintained bicycle parking spaces at residential and commercial buildings, and publicly maintained parking spaces at activity centers, such as transit stations, employment centers and commercial areas.

Bicycle programs encourage bicycling by identifying bicycle-supportive events, services, opportunities and projects. This includes bikeway funding programs, the County's bikeshare program and a proposed BikeMontgomery outreach program.

Bicycle policies guide actions taken by the government that affect bicycling, including laws, policies, regulations, standards and guidelines. This includes Montgomery County's Context Sensitive Road Design Standards and local land use laws.

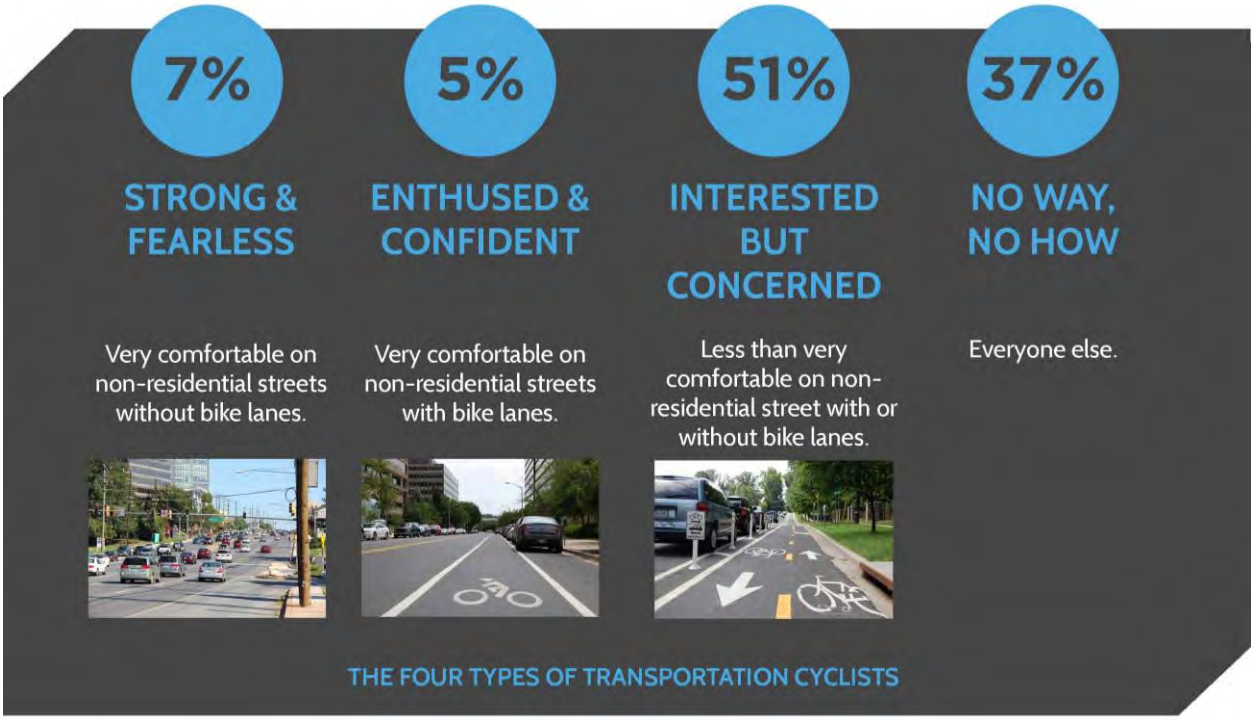
Since infrastructure, programs and policies take time and resources to implement, the Bicycle Master Plan will **prioritize** those that contribute most to the vision of the plan as measured by the goals and objectives.

bikeway recommendations

Most trips are short enough to be made by bicycle, yet most are made by private vehicles[1]. One barrier to bicycling is what is known as "traffic stress"[2]. The concept of traffic stress is that people have a tolerance for bicycling near traffic and if that tolerance is exceeded even for a short distance, they may be deterred from bicycling. In order to attract the broadest segment of the population to bicycle, Montgomery County will need to create a bicycling network that does not exceed most people's tolerance for traffic stress and does not require an excessive level of detour. While currently about 75 percent of street mileage in Montgomery County is low-stress, these streets largely represent "islands of connectivity" that are separated by arterial roads and environmental features. The Bicycle Master Plan addresses Goal 2 and Goal 3 by recommending a network of low-stress bikeways to connect residential communities to the places that people want to go in Montgomery County, including transit stations, employment centers, shops, public facilities and other destinations.

Recent national surveys have tried to categorize people into different traffic stress tolerance levels[3]. Those who tolerate a high level of traffic stress are comfortable bicycling on most streets, including major highways. These so called "strong and fearless" bicyclists account for about 7 percent of the population. Those who tolerate a moderate level of traffic stress are comfortable bicycling on major highways and arterial roads with bike lanes. These "enthused and confident" bicyclists account for about 5 percent of the population. Those who tolerate a low level of traffic stress are comfortable on residential streets, trails and major highways / arterial roads with bikeways that are separated from traffic. These "interested but concerned" bicyclists account for about 51 percent of the population and include children. About 37 percent of the population is not interested in bicycling for various reasons.

[1] The median trip per the 2007 / 2008 regional household survey is 3.5 miles or less – about a 25-minute bike ride.
[2] The concept of traffic stress is described and quantified in Mekuria, Maaza, Peter G. Furth, and Hilary Nixon, Low-Stress Bicycling and Network Connectivity, San Jose, CA: Mineta Transportation Institute, 2012. A modified version of the Level of Traffic Stress methodology used for the analysis in this master plan is available in Appendix D.
[3] Jennifer Dill and Nathan McNeil, "Revisiting the Four Types of Cyclists: Findings from a National Survey," Transportation Research Record: Journal of the Transportation Research Board, Volume 2587, 2017.

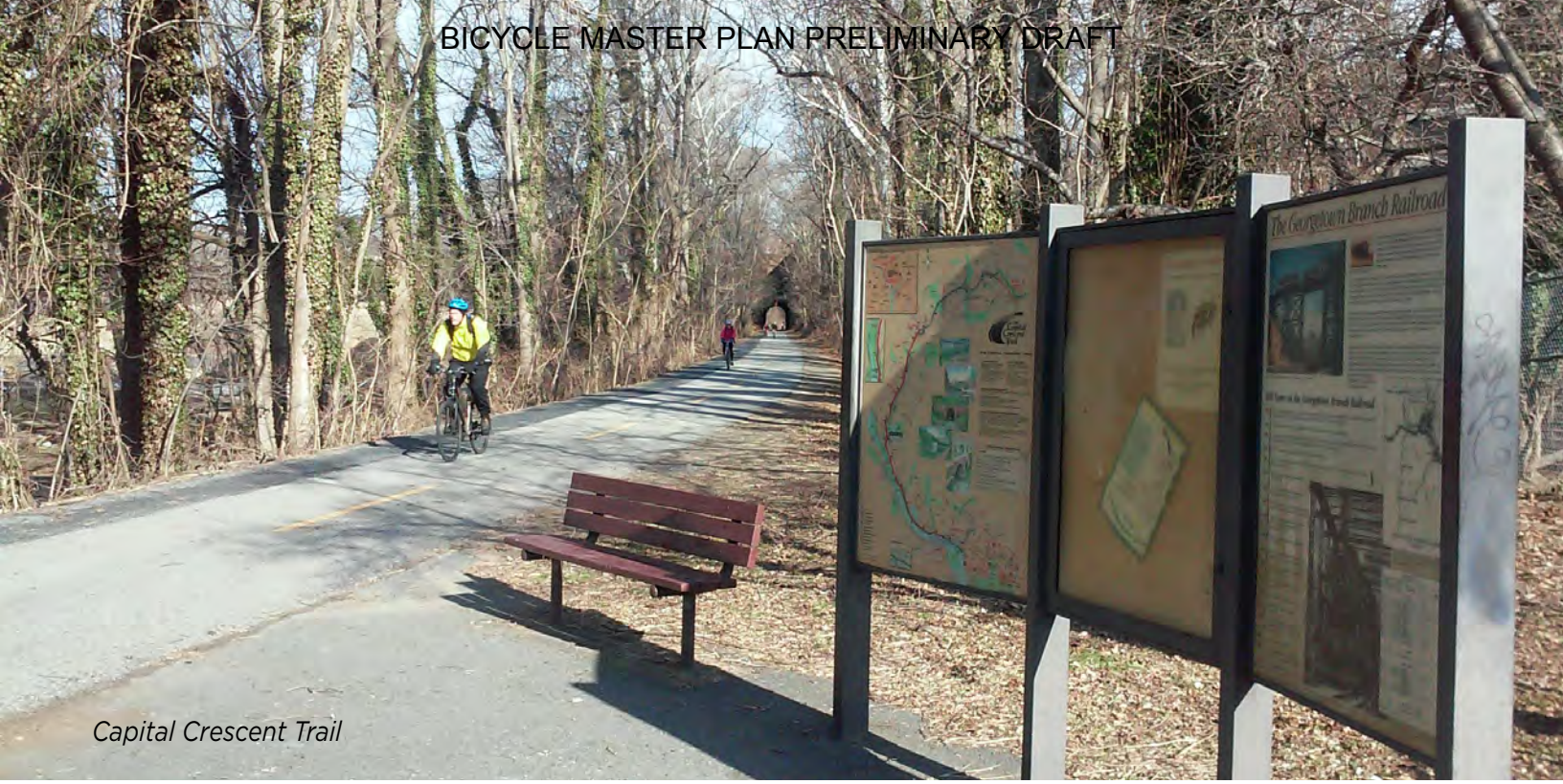


To put in place a network of low-stress bikeways that is appropriate for the diverse communities in Montgomery County, the Bicycle Master Plan is organized around five main types of bicycling trips:

- Trips between activity centers tend to be longer distance and will be centered on the Breezeway Network, a high-capacity, multispeed network of arterial bikeways that enable faster bicyclists to comfortably and conveniently travel with slower bicyclists and pedestrians.
- Trips to activity centers from suburban areas will typically be less than 3 miles and will focus on getting people from residential areas to commercial centers and transit stations on a network largely consisting of neighborhood greenways and sidepaths. This network will be complemented by secure bicycle parking at transit stations and commercial locations.
- Trips within urban areas will typically be less than 1 mile and will includes trips to work, shopping, entrainment and transfers to transit stations on a network of separated bike lanes and trails. This network will be complemented by secure bicycle parking at transit stations and commercial locations as well as the County's bikeshare program.
- Trips to County facilities such as schools, libraries, recreation centers and parks will focus on providing safe accommodation for children and therefore require a very low level of traffic stress. These bikeways consist of a network of sidepaths, neighborhood greenways and trails in suburban areas and separated bike lanes and trails in urban areas.
- Recreational trips, especially those in rural areas, will often include long-distance trips by individuals and groups in rural areas where consistent width bikeable shoulders are particularly appealing.

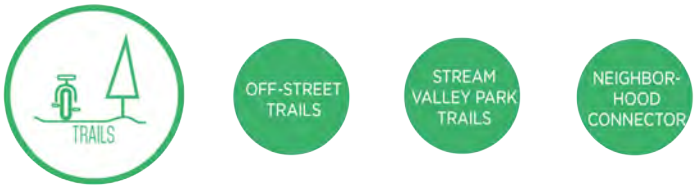
bikeway facility classification

A new bikeway facility classification system is proposed for Montgomery County. This classification system organizes bikeways into five facility classifications based on their level of separation from traffic. These five bikeway classifications are then subdivided into bikeway types. These bicycle facility types are further discussed in Appendix B.



Capital Crescent Trail

TRAILS



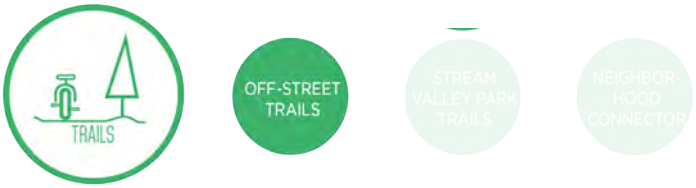
Trails are paths that are located outside of the road right-of-way. They provide two-way travel designated for walking, bicycling, jogging and skating.

Trails are typically 10 feet wide, but can vary between 8 feet (in constrained locations) and 14 feet wide (where usage is likely to be higher). On trails with very high levels of walking and bicycling, spaces for pedestrians and bicyclists are often separated to reduce conflicts and improve comfort. In these situations, trail can be widened to between 15 and 24 feet wide.

Trails include **off-street trails, stream valley park trails** and **neighborhood connectors.**

Bethesda Trolley Trail

OFF-STREET TRAILS



Off-street trails are shared use paths located outside of the road right-of-way that provide two-way travel for people walking, bicycling, and other non-motorized users.

Benefits

- Provide a bicycling environment suitable for all ages and abilities.
- Tend to have fewer at-grade crossings than other bikeways.

Typical Application

- Often located within existing or unused railroad rights-of-way or utility rights-of-way, land dedicated for planned but unbuilt "paper" streets and through public land.

Examples in Montgomery County

- Bethesda Trolley Trail
- Capital Crescent Trail

Rock Creek Trail

STREAM VALLEY PARK TRAILS

Stream valley park trails are shared use paths located within a M-NCPPC stream valley park that provide two-way travel for people walking, bicycling, and other non-motorized users.

Benefits

- Provide a bicycling environment suitable for all ages and abilities.
- Tend to have fewer at-grade crossings than other bikeways.

Typical Application

- Located along stream valley parks.

Examples in Montgomery County

- Rock Creek Trail
- Sligo Creek Trail
- Matthew Henson Trail

NEIGHBORHOOD CONNECTORS

Neighborhood connectors are short paths that provide critical connections in the residential walking and bicycling network. They create short-cuts and often bypass or minimize the amount of travel along higher-stress streets. In most instances neighborhood connectors are owned by private entities, especially home owner's association, though about one-third of neighborhoods connectors are either in the public right-of-way or owned by the Montgomery County Board of Education or the Maryland National Capital Park and Planning Commission. Many neighborhood connectors need to be upgraded, either by paving a dirt or gravel surface, repaving a surface that has deteriorated over time, or widening the pathway to meet ADA requirements.

Benefits
- Provides a short path for walking and bicycling.

Typical Application
- Located within residential communities.

Examples in Montgomery County
- See Appendix J

Separated Bike Lanes on Woodglen Drive, North Bethesda

SEPARATED BIKEWAYS

Separated bikeways provide physical separation from traffic and include **sidepaths** and **separated bike lanes**.

Once the decision is made to provide a separated bikeway, planners must determine whether the bikeway should also be separated from pedestrians.

Pedestrian demand will be the primary consideration for determining whether a separated bikeway should be implemented as a sidepath or a separated bike lane. All other things being equal, **sidepaths** will be recommended where observed or anticipated pedestrian demand is lower, since conflicts between people walking and bicycling will be infrequent. **Separated bike lanes** will be recommended where pedestrian volumes are observed or anticipated to be higher.

Another closely related factor is the land use type and density of the surrounding environment. Sidepaths tend to be more appropriate in suburban areas where pedestrian travel is less and where pedestrian movements tend to be more predictable. In urban areas, pedestrian travel is characterized by meandering and stop-and-go movements as people socialize, enter and exit stores, dine outdoors, access transit or walk to and from on-street parking. Pedestrians movements are less predictable in urban locations, so providing **separated bike lanes** and sidewalks is recommended in the vicinity of commercial and higher-density mixed-use areas and major transit facilities.

TYPICAL APPLICATION

- TRAFFIC LANES **3+ LANES**
- POSTED SPEED LIMIT **30 MPH OR FASTER**
- TRAFFIC **6,000+ VEHICLES PER DAY**
- ON-STREET PARKING TURNOVER **FREQUENT**
- BIKE LANE OBSTRUCTION **LIKELY TO BE FREQUENT**
- **DESIGNATED AS TRUCK OR BUS ROUTE**

Separated Bike Lanes on Nebel Street, North Bethesda

SEPARATED BIKE LANES

Separated bike lanes are exclusive bikeways that combine the user experience of a sidepath with the on-street infrastructure of a conventional bike lane. They are physically separated from motor vehicle traffic and distinct from the sidewalk. They operate one-way or two-way.

Separated bike lanes can provide different levels of separation:

- Separated bike lanes with flexible delineator posts ("flex posts") alone offer the least separation from traffic and are appropriate as an interim solution.
- Separated bike lanes that are raised with a wider buffer from traffic provide the greatest level of separation from traffic, but will often require road reconstruction.
- Separated bike lanes that are protected from traffic by a row of on-street parking, such as shown in the image of Woodglen Avenue, offer a high-degree of separation, but would benefit from additional design features.

Benefits

- More attractive to a wider range of bicyclists than **striped bikeways** on higher volume and higher speed roads.
- Eliminate the risk of a bicyclist being hit by an opening car door.
- Prevent motor vehicles from driving, stopping or waiting in the bikeway.
- Provide greater comfort to pedestrians.

Typical Application

- See section overview.
- Adjacent to the roadway.
- Recommended on higher volume and higher speed roads where pedestrian volumes are high, including higher density areas, commercial and mixed-use development, and near major transit stations.

Examples in Montgomery County

- Woodglen Drive
- Nebel Street
- Spring Street

Sidepath on MacArthur Boulevard, Bethesda

SIDEPATHS

Sidepaths are shared use paths located parallel to and within the road right-of-way. They provide two-way travel designated for walking, bicycling, jogging and skating. Sidepaths are typically 10 feet wide, but can vary between 8 feet (in constrained locations) and 14 feet wide (where usage is likely to be higher). Sidepaths are separated from motorized traffic by a curb, barrier or landscaped panel.

Benefits

- More attractive to a wider range of bicyclists than striped bikeways on higher volume and higher speed roads.

Typical Application

- See section overview.
- Adjacent to the roadway.
- Recommended on higher volume and higher speed roads where pedestrian volumes are low, including suburban streets.

Examples in Montgomery County

- MacArthur Boulevard
- Key West Avenue
- Olney-Laytonsville Road
- Briggs Chaney Road

Bike Lanes on Battery Lane, Bethesda

STRIPED BIKEWAYS

Striped bikeways are designated spaces for bicycling that are distinguished from traffic lanes and shoulders by striping and pavement markings. Until a few years ago, **conventional bike lanes** were the gold standard of North American bicycle planning in urban areas. But over the past few years, a variety of new bike lane types have arisen, including **buffered bike lanes** and **advisory bike lanes**. Collectively, this reports refers to the variety of bike lanes as striped bikeways.

While striped bikeways remain a useful tool to reduce traffic stress, they are insufficient to attract "interested but concerned" bicyclists in many environments because they do not provide sufficient separation from traffic and are often obstructed by motorized vehicles.

TYPICAL APPLICATION

TRAFFIC LANES
3 LANES OR FEWER

POSTED SPEED LIMIT
30 MPH OR SLOWER

TRAFFIC
9,000 VEHICLES PER DAY OR FEWER

ON-STREET PARKING TURNOVER
INFREQUENT

BIKE LANE OBSTRUCTION
LIKELY TO BE INFREQUENT

WHERE A SEPARATED BIKEWAY IS INFEASIBLE OR NOT DESIRABLE

Buffered Bike Lanes on East Capitol Street SE, Washington, DC

BUFFERED BIKE LANES

Buffered Bike Lanes are conventional bike lanes paired with a designated buffer space separating the bicycle lane from the adjacent motor vehicle travel lane and/or parking lane to increase the comfort of bicyclists.

Benefits

- Provides greater separation between motor vehicles and bicyclists.
- Provides space for one bicyclist to pass another without encroaching into the adjacent motor vehicle travel lane.
- Encourages bicyclists to ride outside of the door zone when the buffer is between parked cars and the bike lane.
- Provides a greater space for bicycling without making the bike lane appear so wide that it might be mistaken for a travel lane or a parking lane.
- Appeals to a wider cross-section of bicycle users.

Typical Application

- See section overview.

Examples in Montgomery County

- None

Buffered Bike Lanes on East Capitol Street SE, Washington, DC

CONVENTIONAL BIKE LANES

Conventional bike lanes (or simply bike lanes) are portions of the street that have been designated by striping, signage and pavement markings for the preferential or exclusive use of bicyclists. They are typically 5 to 6 feet wide in Montgomery County.

Climbing lanes include a conventional bike lane in the uphill direction and a shared lane in the downhill direction. These lanes are used to improve safety on hills where there is a higher speed differential between bicyclists and motor vehicles.

Benefits

- Increases bicyclist comfort and confidence on busy streets.
- Creates separation between bicyclists and automobiles.
- Increases predictability of bicyclist and motorist positioning and interaction.
- Increases total capacities of streets carrying mixed bicycle and motor vehicle traffic.
- Visually reminds motorists of bicyclists' right to bicycle in the street.

Typical Application

- See section overview.

Examples in Montgomery County

- Dufief Mill Road
- Battery Lane
- Bonifant Road
- Fairland Road
- Marinelli Road

Advisory Bike Lanes on Potomac Green Drive, Alexandria, Virginia

ADVISORY BIKE LANES

Advisory Bike Lanes are dashed bike lanes that allow motorists to temporarily enter the bike lane to provide oncoming traffic sufficient space to safely pass on narrow, unlaned roads in residential areas.

Benefits

- Require less space to implement than conventional bike lanes.
- Encourage motorists to safely pass bicyclists.
- Visually reminds motorists of bicyclists' right bicycle in the street.
- Removing the center line reduces the speed of motor vehicles.
- Are likely to reduce traffic speeds.

Typical Application

- Where there is insufficient space for conventional bike lanes and two lanes of traffic.
- Residential land uses.
- Number of travel lanes: un-laned, bi-directional streets.
- Street width: The un-laned two-way travel space should be 12 to 18 feet wide.
- Posted speed: 30 mph or less.
- Traffic: 2,000 to 4,000 vehicles per day.
- Parking: May be used on streets with or without on-street parking.

Examples in Montgomery County

- None

Contra-Flow Bike Lane on Cedar Avenue

CONTRA-FLOW BIKE LANES

Contra-Flow bike lanes are bike lanes designed to allow bicyclists to ride in the opposite direction of motor vehicle traffic. They convert a one-way traffic street into a two-way street: one direction for motor vehicles and bikes, and the other for bikes only.

Benefits

- Enable bicyclists to travel against traffic on one-way streets.

Typical Application

- See section overview.
- One-way streets.

Examples in Montgomery County

- Cedar Street

Bikeable Shoulders On Clarksburg Road in Boyds.

BIKEABLE SHOULDERS

Bikeable shoulders are portions of the roadway that accommodate stopped or parked vehicles, emergency use, bicycles and motor scooters and pedestrians where sidewalks do not exist. Bikeable shoulders of at least four feet in width can improve comfort on some roadways for some bicyclists. They are most appropriate in rural locations in the county, often where posted speed limits are 40 mph and higher.

Bikeable shoulders do not create low-stress environment on roads where the posted speed limit exceeds 30 mph.

Benefits

- Provide separation from traffic.
- Intended primarily for recreational bicyclists.

Typical Application

- Primarily found in rural locations.
- Posted Speed Limit: ≥ 40 mph

Examples in Montgomery County

- River Road
- New Hampshire Avenue from MD 198 to MD 108
- Norwood Road from MD 182 to MD 650

SHARED ROADS

Shared Roads are bikeways that share space with automobiles. They include **neighborhood greenways** in suburban areas, **shared streets** in urban areas and **priority shared lane markings** where there is insufficient space for a dedicated bikeway. Of course, all streets where bicycles share space with automobiles are de facto shared roads, but only some are master-planned.

Bell Street, Seattle (Source: NACTO)

SHARED STREETS

Shared streets constitute an urban design approach where pedestrians, bicycles and motor vehicles can comfortably coexist. They prioritize pedestrian and bicycle movement by slowing vehicular speeds and communicating clearly through design features that motorists must yield to all other users. Motorists are considered “guests” in this environment.

Benefits

- Create conditions where pedestrians and bicyclists can walk or ride on the street and cross at any location, as opposed to at designated locations.

Typical Application

- Low traffic volume, low traffic speed and high pedestrian volume streets.

Examples in Montgomery County

- None.

A neighborhood greenway on SE Lincoln Street in Portland, Oregon. Source: Toole Design Group

NEIGHBORHOOD GREENWAY

Neighborhood greenways (also called bicycle boulevards) are streets with low motorized traffic volumes and speeds, designed and designated to give walking and bicycling priority. They use signs, pavement markings and speed and volume management measures to discourage through trips by motor vehicles and create safe, convenient crossings of busy arterial streets.

Neighborhood greenways incorporate several design elements:

- Traffic diverters at key intersections to reduce through motor vehicle traffic while permitting passage for through bicyclists.
- At two-way, stop-controlled intersections, priority assignment that favors the neighborhood greenway, so bicyclists can ride with few interruptions.
- Neighborhood traffic circles and mini-roundabouts at minor intersections to slow traffic but allow bicyclists to maintain momentum.
- Traffic-calming to lower motor traffic speeds.

Benefits

- Attractive to a wide range of bicyclists.
- Reduce the speed and volume of traffic.
- Prioritize walking and bicycling at minor street crossings.
- Improve safety and reduce delay for walking and bicycling at major street crossings.

Typical Application

- Posted Speed Limit: ≤ 25 mph.
- Context: areas where through traffic can be diverted to parallel streets.
- Street pattern: where a continuous route for bicycling is possible.

Examples in Montgomery County

- None.

- Wayfinding signs to guide bicyclists along the route and to key destinations.
- Shared-lane markings (sharrows) where appropriate to alert drivers to the path bicyclists need to take on a shared roadway.
- Crossing improvements where the boulevard crosses major streets (including traffic signals, median refuges and curb extensions).

Market Street, San Francisco (Source: Toole Design Group)

PRIORITY SHARED LANE MARKINGS

Priority shared lane markings communicate bicyclist priority within a shared lane and guide bicyclists to ride outside of the door zone. Colored backing and more frequent spacing make priority shared lane markings more conspicuous than standard shared lane markings (also known as sharrows). This treatment does not improve most bicyclists' comfort in shared lanes with traffic.

They can be installed in limited instances on roadways where it is not feasible to install bicycle lanes, separated bike lanes, or shared use paths, but it is desirable to communicate bicyclists priority within a shared lane.

Benefits

- Make bicyclists more conspicuous in locations where it is not possible to provide a low-stress bikeway.

Typical Application

- Narrow streets with high on-street parking turnover, typically those with ground floor retail and dining or on low-speed, low-volume frontage roads.
- Separated bike lane mixing zones where a protected intersection is not provided.

Examples in Montgomery County

- None.

general bikeway application

A countywide plan such as the Bicycle Master Plan cannot anticipate all opportunities to implement bikeways that might arise. While the Plan's bikeway recommendations are included in the following section, this table provides default bikeway recommendations by facility planning studies in locations where the Bicycle Master Plan does not have a bikeway recommendation. It will also serve as the default bikeway that developers will implement on non-master planned streets through the development approval process. See Appendix B for a description of each bikeway facility.

GENERAL BIKEWAY APPLICATION

ROADWAY CLASSIFICATIONS	NUMBER OF LANES	HIGHER ACTIVITY AREAS	LOWER ACTIVITY AREAS
Controlled Major Highway	4+	Two-Way Separated Bike Lanes (Both Sides of Street)	Sidepath (Both Sides of Street)
		Great Seneca Hwy (South of Sam Eig Hwy)	Great Seneca Hwy (North of Longdraft Rd)
Major Highway*	4+	Two-Way Separated Bike Lanes (Both Sides of Street)	Separated Bikeway Sidepath (Both Sides of Street)
		Rockville Pike (White Flint)	Veirs Mill Rd (north of Wheaton CBD)
Arterial*	5	Two-Way Separated Bike Lanes (Both Sides of Street)	Sidepath (Both Sides of Street)
		Darnestown Rd (East of Shady Grove Rd)	Bel Pre Rd (East of Connecticut Ave)
	2-4	One-Way Separated Bike Lanes (Both Sides of Street)	Sidepath (One Side of Street)
		Spring St (Silver Spring)	Wilson Ln (Bethesda)
Minor Arterial*	2-3	One-Way Separated Bike Lanes (Both Sides of Street)	Sidepath (One Side of Street)
		Few examples at this time	Few examples at this time
Country Arterials	Any	N/A	Bikeable Shoulders
			Dickerson Rd
Business District Street	2-3	One-Way Separated Bike Lanes (Both Sides of Street)	One-Way Separated Bike Lanes (Both Sides of Street)
		Norfolk Ave (Bethesda)	Westbard Ave (Westbard)
Primary Residential	2	Sidepath, Bike Lanes (Buffered, Conventional, Advisory)	Sidepath, Bike Lanes (Buffered, Conventional, Advisory)
		Domer Ave	Artic Ave
Secondary Residential	Un-Laned	N/A	On-Road Bikeway
			Gelding Ln (Olney)
Tertiary Residential	Un-Laned	N/A	On-Road Bikeway
			Gelding Ln (Olney)

*Where space is available and does not substantially detract from the default bikeway, bike lanes or bikeable shoulders can be added.

The table recommends a default bikeway type based on the roadway functional classification and whether the area is planned to be higher or lower activity. Higher Activity Areas include those parts of the county that are zoned Commercial-Residential (CR), Life Sciences Center (LSC) or their floating zone equivalents or that are located within 0.5 miles of a rail station. Areas that are zoned R-10, R-20, R-30 (multifamily residential zones) and RT (townhouse zones) are considered Higher Activity Areas if they are near these areas. All other areas of the county are considered Lower Activity Areas.

bikeway recommendations

The recommended bicycling network is organized based on geographic areas known as "policy areas", created as part of the County's subdivision staging policy. Each policy area has a map of recommended bikeways and a detailed table describing the bikeways. The policy area map displays the bicycle facility classification and whether the bikeway is existing or proposed. It also indicates where a bicycle parking station is proposed and whether grade separation exists or is proposed. The policy area tables indicate the name of the road, where the road segment starts and ends, the bikeway facility classification and the bikeway type for that segment.

Overall, the Bicycle Master Plan recommends about 1,200 miles of bikeways, of which slightly over one-quarter of those currently exist. The largest category of bikeways includes shared use paths (635 miles), followed by trails (189 miles), bikeable shoulders (131 miles) and separated bike lanes (101 miles). While this network is extensive and unlikely to be constructed within the life of this plan, such a large network is recommended so that opportunities to implement the bikeway recommendations are not lost when unforeseen circumstances arise. A prioritized list of bikeways are included in the prioritization section of this plan.

A summary of the bikeway recommendations is shown in Table X.

Table X: Summary of Bikeway Recommendations

Category	Bikeway Type	Existing	Proposed	Total
Trails	Trail	124	65	189
	Park Trail	28	0	28
	Neighborhood Connector	14	3	17
Separated Bikeways	Shared Use Path	152	483	635
	Separated Bike Lanes	2	99	101
Striped Bikeways	Buffered Bike Lanes	0	7	7
	Conventional Bike Lanes	14	19	33
	Advisory Bike Lanes	0	0	0
	Contra-Flow Bike Lanes	0	5	5
Shoulders	Bikeable Shoulders	0	131	131
Shared Roads	Neighborhood Greenways	0	50	50
	Shared Streets	0	1	1
	Priority Shared Lane Markings	0	5	5
Total		334	868	1,202

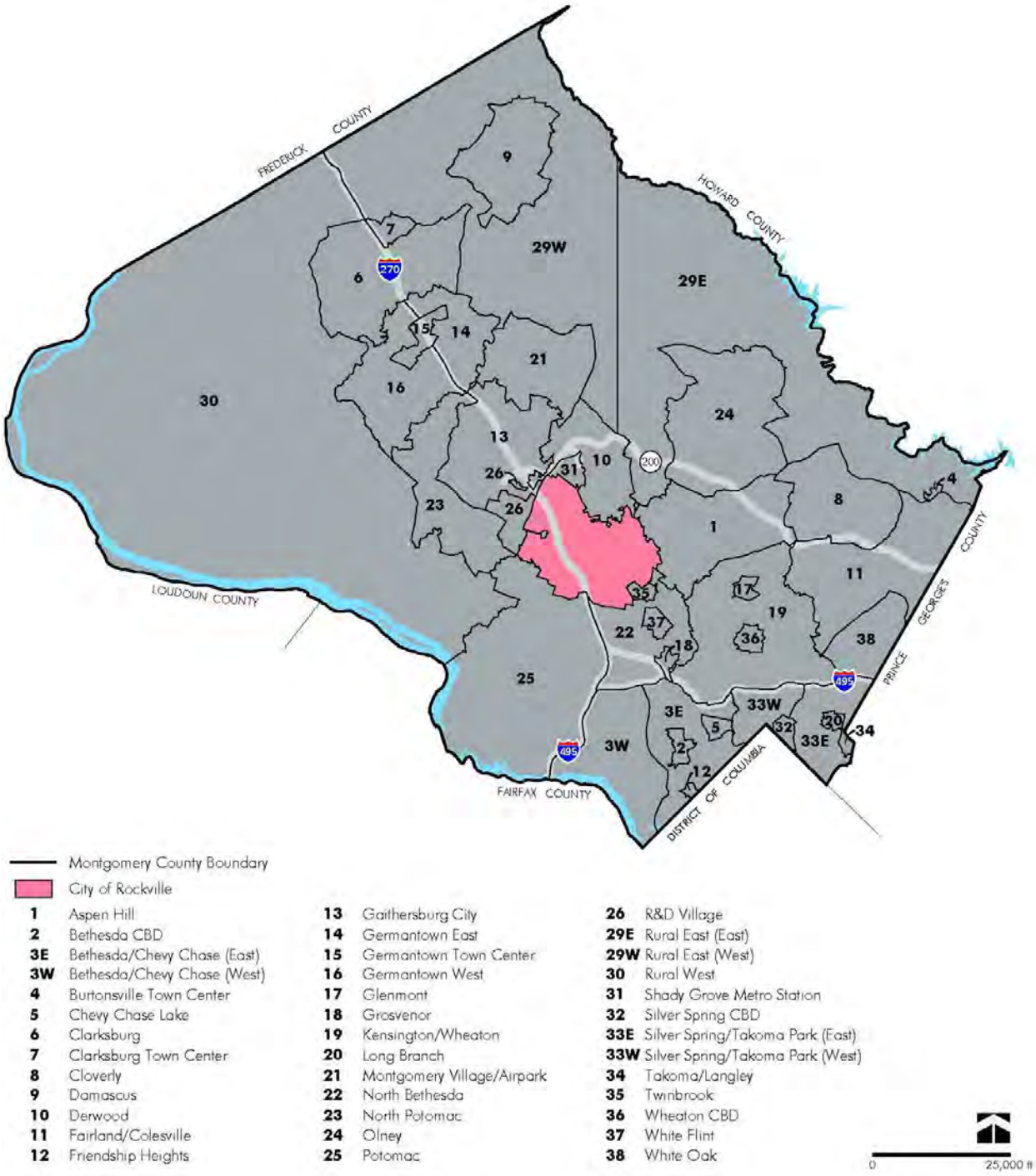
Call-Out Box: Non-master planned roads

Just like motorists and pedestrians, bicyclists travel on all roads where it is legal[4] to ride a bicycle to access their homes, jobs, shopping and other local destinations. While only a portion of roads in Montgomery County will be master-planned bikeways, all non-master-planned roads where it is legal to bicycle should be designed with the understanding that people of all ages and bicycling abilities will bicycle on them.

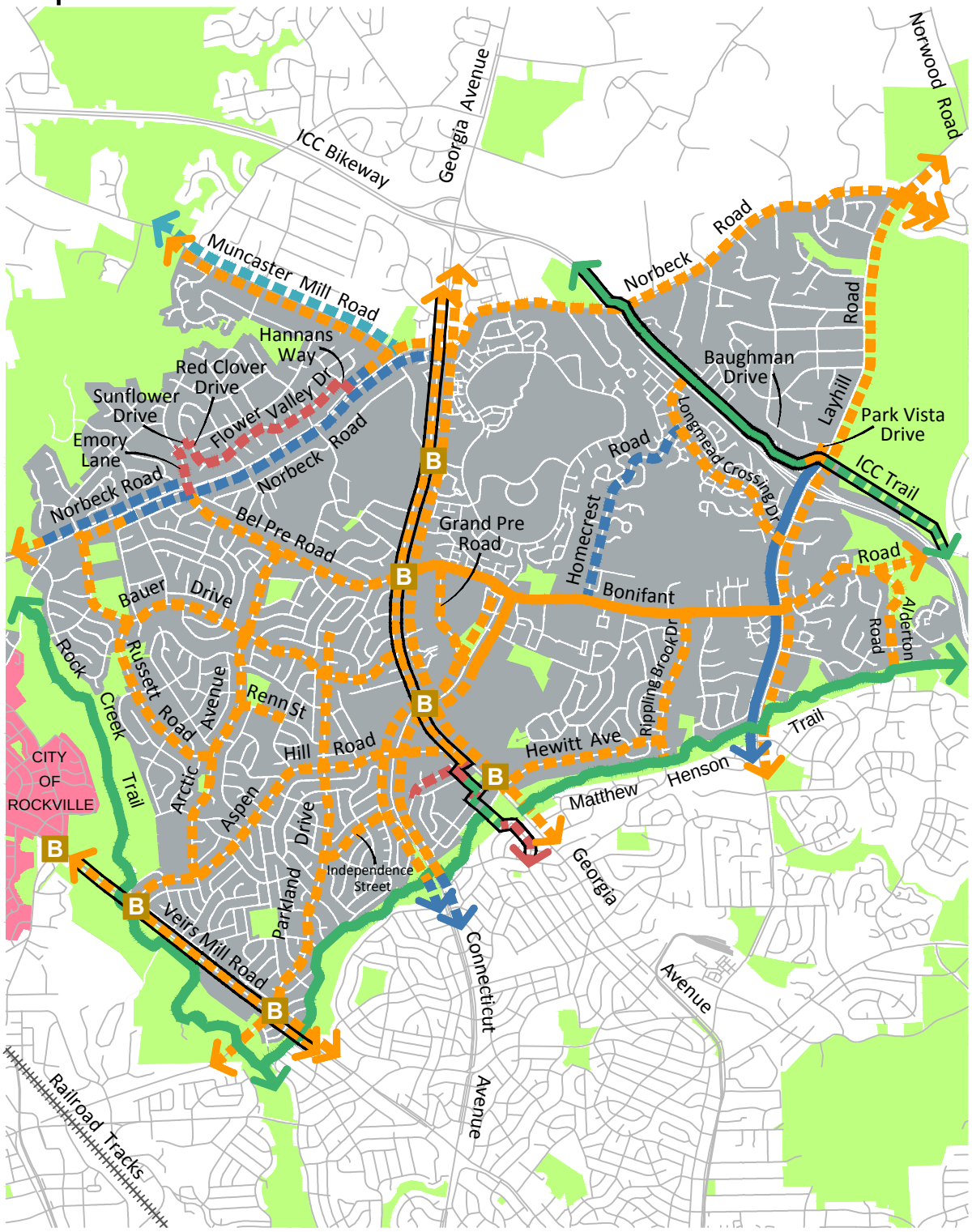
[4] It is illegal to ride a bicycle in the travel lanes of any roadway where the posted maximum speed limit is more than 50 miles an hour (though it is legal to ride on the shoulder of these roadways) or on expressways (access-controlled freeways and interstate highways), except on an adjacent path or facility approved by the State Highway Administration.

Bikeway Recommendations

Policy Areas



Aspen Hill



Policy Area
Parkland
City of Rockville
B Bus Rapid Transit Station (Proposed)
Breezeway Network

Existing	Proposed	
		Trails
		Separated Bikeways
		Striped Bikeways
		Bikeable Shoulders
		Shared Roads

Note: White lines represent non-master planned bikeways

0 4000'

Aspen Hill

Bikeway	From	To	Facility Type	Bikeway Type
Georgia Ave North Breezeway				
Georgia Ave Access Road	Norbeck Rd	Bel Pre Rd	Separated Bikeway	Sidepath (West Side)
Georgia Ave	Bel Pre Rd	Wendy La	Separated Bikeway	Sidepath (West Side)
Wendy La	Loyola St	Georgia Ave	Shared Road	Neighborhood Greenway
Loyola St	Wendy La	Harmony Hill Neighborhood Park	Shared Road	Neighborhood Greenway
Harmony Hills NP Trail	Loyola St	Loyola St	Trail	Off-Street Trail
Loyola St	Harmony Hill Neighborhood Park	Ralph Rd	Shared Road	Neighborhood Greenway
Ralph Rd	Kilburn La	Loyola St	Shared Road	Neighborhood Greenway
Trail	Kilburn La	Matthew Henson Trail	Trail	Off-Street Trail
Veirs Mill Rd Breezeway				
Veirs Mill Rd	Rock Creek Trail	Matthew Henson Trail	Separated Bikeway	Sidepath (South Side)
Montrose Parkway Breezeway				
Montrose Parkway	Rock Creek	Veirs Mill Rd	Separated Bikeway	Sidepath (North Side)
Intercounty Connector Trail Breezeway				
Intercounty Connector Trail	Norbeck Rd	Park Vista Ct	Trail	Off-Street Trail
Park Vista Dr	Intercounty Connector Trail	Layhill Rd	Separated Bikeway	Sidepath (North Side)
Intercounty Connector Trail	Layhill Rd	Bonifant Rd	Trail	Off-Street Trail
Norbeck Rd North Bikeway				
Norbeck Rd	City of Rockville	End of Access Rd	Separated Bikeway	Sidepath (South Side)
Norbeck Rd Access Road	End of Access Rd	Emory La	Shared Road	Contra-Flow Bike Lane
Emory La	Norbeck Rd	Sunflower Dr	Shared Road	Neighborhood Greenway
Sunflower Dr	Emory La	Red Clover Dr	Shared Road	Neighborhood Greenway
Red Clover Dr	Sunflower Dr	Flower Valley Dr	Shared Road	Neighborhood Greenway
Flower Valley Dr	Red Clover Dr	Hannans Way	Shared Road	Neighborhood Greenway
Hannans Way	Flower Valley Dr	Norbeck Rd	Shared Road	Neighborhood Greenway
Norbeck Rd Access Road	Hannans Way	End of Access Rd	Shared Road	Contra-Flow Bike Lane
Norbeck Rd	Norbeck Rd Access Road	Layhill Rd	Separated Bikeway	Sidepath (North Side)
Norbeck Rd South Bikeway				
Norbeck Rd	Bauer Dr	Norbeck Rd Access Road	Separated Bikeway	Sidepath (South Side)
Norbeck Rd Service Road	400' West Of Nadine Dr	Georgia Ave	Shared Road	Contra-Flow Bike Lane
Connecticut Ave West Bikeway				
Connecticut Ave	Grand Pre Rd	Georgia Ave	Separated Bikeway	Separated Bike Lanes (West Side)
Connecticut Ave	Georgia Ave	Aspen Hill Rd	Separated Bikeway	Separated Bike Lanes (Two-Way, West Side)

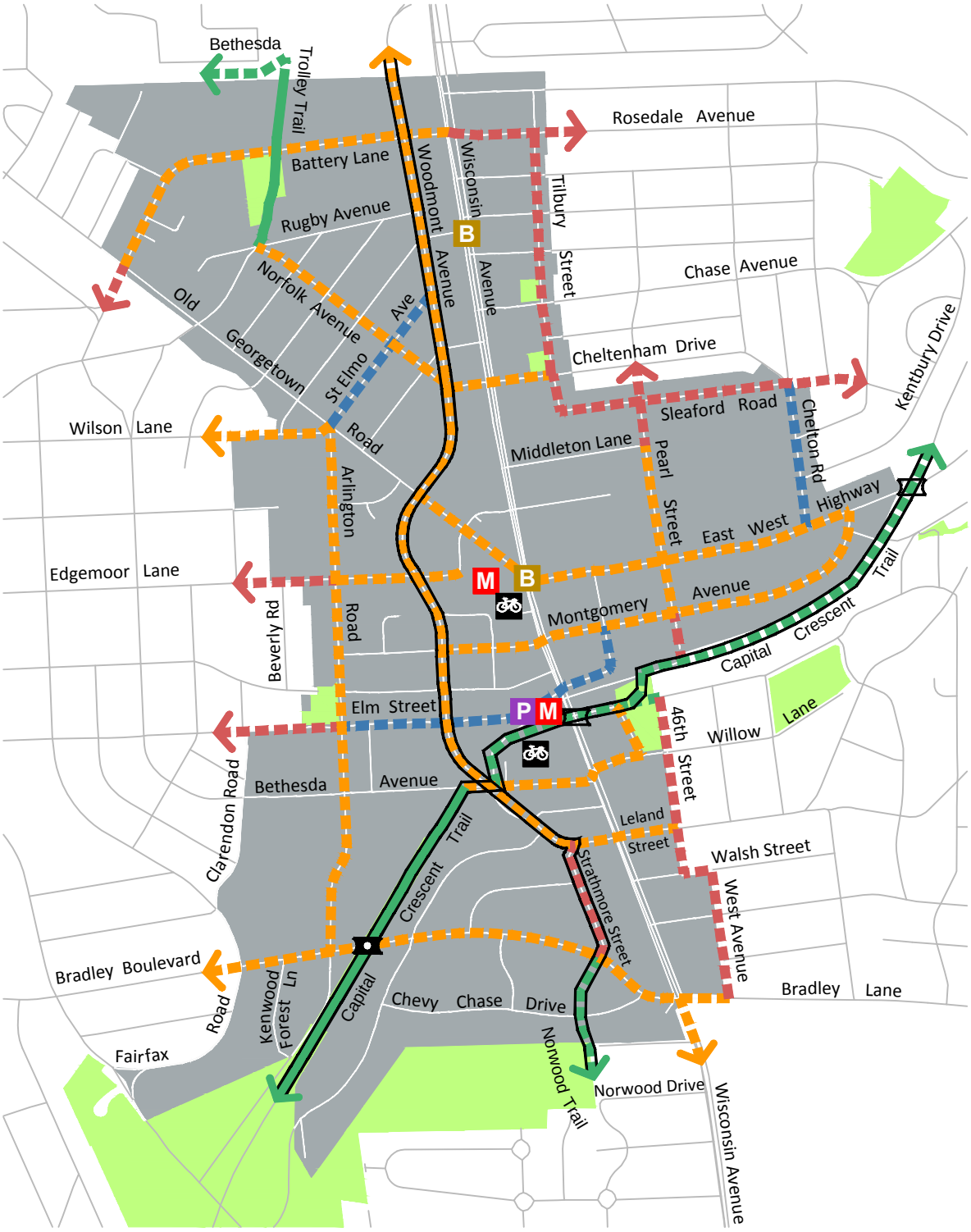
Aspen Hill

Bikeway	From	To	Facility Type	Bikeway Type
Connecticut Ave	Aspen Hill Rd	Independence St	Separated Bikeway	Sidepath (West Side)
Connecticut Ave	Independence St	Matthew Henson Trail	Separated Bikeway	Sidepath (West Side)
Connecticut Ave East Bikeway				
Connecticut Ave	Bel Pre Rd	Grand Pre Rd	Separated Bikeway	Sidepath (East Side)
Connecticut Ave	Grand Pre Rd	Georgia Ave	Separated Bikeway	Sidepath (East Side)
Connecticut Ave	Georgia Ave	Aspen Hill Rd	Separated Bikeway	Separated Bike Lanes (Two-Way, East Side)
Connecticut Ave	Aspen Hill Rd	Independence St	Separated Bikeway	Separated Bike Lanes (Two-Way, East Side)
Connecticut Ave	Independence St	Matthew Henson Trail	Separated Bikeway	Sidepath (East Side)
Alderton Rd	Bonifant Rd	Matthew Henson Trail	Separated Bikeway	Sidepath (East Side)
Arctic Ave	Bel Pre Rd	Aspen Hill Rd	Separated Bikeway	Sidepath (Side TBD)
Aspen Hill Rd	Veirs Mill Rd	Connecticut Ave	Separated Bikeway	Sidepath (North Side)
	Connecticut Ave	Georgia Ave	Separated Bikeway	Separated Bike Lanes (Two-Way, North Side)
Bauer Dr	Norbeck Rd	Marianna Dr	Separated Bikeway	Sidepath (Side TBD)
Bel Pre Rd	Norbeck Rd	Layhill Rd	Separated Bikeway	Sidepath (South Side)
Bonifant Rd	Layhill Rd	Intercounty Connector Trail	Separated Bikeway	Sidepath (South Side)
	Intercounty Connector Trail	Pebblestone Dr	Separated Bikeway	Sidepath (South Side)
Georgia Ave	Norbeck Rd	Matthew Henson Trail	Separated Bikeway	Sidepath (East Side)
Grand Pre Rd	Bel Pre Rd	Connecticut Ave	Separated Bikeway	Sidepath (Side TBD)
Heathfield Rd	Parkland Dr	Georgia Ave	Separated Bikeway	Sidepath (Side TBD)
Hewitt Ave	Georgia Ave	Rippling Brook Dr	Separated Bikeway	Sidepath (Side TBD)
Homecrest Rd	Longmead Crossing Dr	Bel Pre Rd	Striped Bikeway	Conventional Bike Lanes
Independence St	Parkland Dr	Connecticut Ave	Separated Bikeway	Sidepath (Side TBD)
Layhill Rd	Norbeck Rd	Baughman Dr	Separated Bikeway	Sidepath (East Side)
	Baughman Dr	Park Vista Dr	Separated Bikeway	Sidepath (Both Sides)
	Park Vista Dr	Matthew Henson Trail	Separated Bikeway and Striped Bikeway	Sidepath (East Side) and Conventional Bike Lanes
Longmead Crossing Dr	Intercounty Connector Trail	Layhill Rd	Separated Bikeway	Sidepath (North Side)
Marianna Dr	Bauer Dr	Parkland Dr	Separated Bikeway	Sidepath (Side TBD)
Matthew Henson Trail	Rock Creek Trail	Alderton Rd	Trail	Stream Valley Park Trail
	Alderton Rd	Fairland / Colesville Policy Area	Trail	Stream Valley Park Trail
Matthew Henson Trail Connector	Rippling Brook Dr	Matthew Henson Trail	Trail	Off-Street Trail
Muncaster Mill Rd	North Branch Rock Creek	Norbeck Rd	Separated Bikeway and Bikeable Shoulders	Sidepath (West Side) and Bikeable Shoulders
Palmira La	Aspen Hill Shopping Center	Wendy La	Shared Road	Neighborhood Greenway

Aspen Hill

Bikeway	From	To	Facility Type	Bikeway Type
Parkland Dr	Chesterfield Rd	Marianna Dr	Separated Bikeway	Sidepath (Side TBD)
	Marianna Dr	Veirs Mill Rd	Separated Bikeway	Sidepath (Side TBD)
Renn St	Artic Ave	Marianna Dr	Separated Bikeway	Sidepath (Side TBD)
Rippling Brook Dr	Bel Pre Rd	Matthew Henson Trail	Separated Bikeway	Sidepath (East Side)
Rock Creek Trail	Avery Rd	Veirs Mill Rd Trail Connector	Trail	Stream Valley Park Trail
Russett Rd	Bauer Dr	Artic Ave	Separated Bikeway	Sidepath (East Side)
Veirs Mill Rd	Parkland Dr	Matthew Henson Trail	Separated Bikeway	Sidepath (North Side)
Wendy La	Palmira La	Loyola St	Shared Road	Neighborhood Greenway

Bethesda CBD



Policy Area
Parkland
Metrorail Station
Bus Rapid Transit Station (Proposed)
Purple Line Station (Proposed)
Breezeway Network

Existing	Proposed	
		Trails
		Separated Bikeways
		Striped Bikeways
		Shared Roads
		Grade Separated Crossing
		Bicycle Parking Station

Note: White lines represent non-master planned bikeways

0 1000'

Bethesda CBD

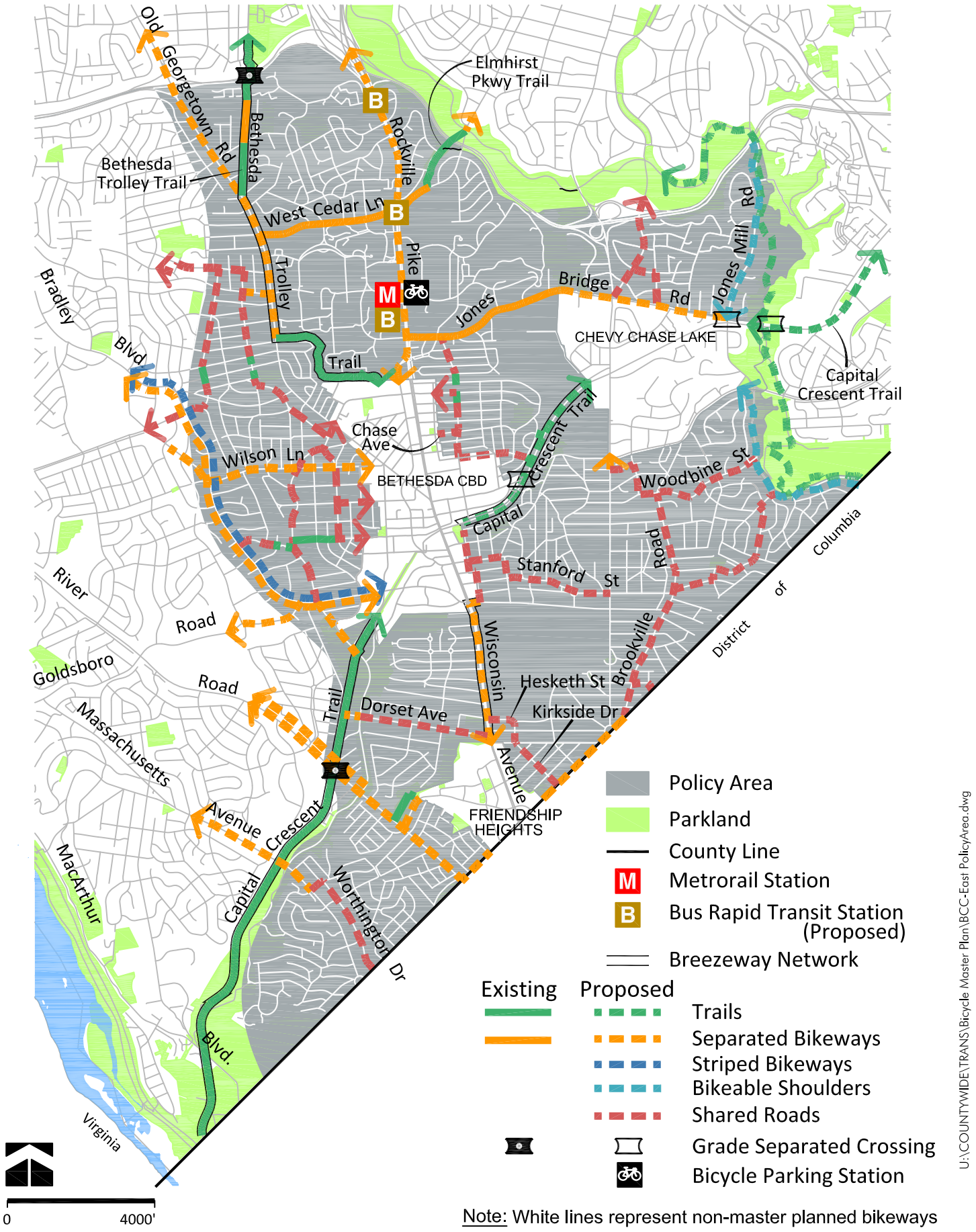
Street	From	To	Facility Type	Bikeway Type
Capital Crescent Trail Breezeway				
Capital Crescent Trail	Kenwood Forest La	Woodmont Ave	Trail	Off-Street Trail
Capital Crescent Trail (Tunnel Route)	Woodmont Ave	47th St	Trail	Off-Street Trail
Capital Crescent Trail	47th St	Pearl St	Trail	Off-Street Trail
MD 355 South Breezeway				
Bethesda Trolley Trail	NIH Property Line	Battery La	Trail	Off-Street Trail
Woodmont Ave	Battery La	Wisconsin Ave	Separated Bikeway	Separated Bike Lanes*
46th St	Elm St	Walsh Ave	Shared Road	Neighborhood Greenway
Arlington Rd	Old Georgetown Rd	Bradley Blvd	Separated Bikeway	Separated Bike Lanes*
Battery La	Old Georgetown Rd	Wisconsin Ave	Separated Bikeway	Separated Bike Lanes (Two-Way, Side TBD)
Bethesda Trolley Trail	Battery La	Rugby Ave	Trail	Off-Street Trail
Bradley Blvd	Fairfax Rd	Wisconsin Ave	Separated Bikeway	Separated Bike Lanes (Two-Way, East Side)
Bradley La	Wisconsin Ave	West Ave	Separated Bikeway	Separated Bike Lanes (Two-Way, North Side)
Capital Crescent Trail (Surface Route)	Woodmont Ave	Wisconsin Ave	Separated Bikeway	Separated Bike Lanes (Two-Way, North Side)
	Wisconsin Ave	47th St	Separated Bikeway	Separated Bike Lanes (Two-Way, South Side)
	Willow La	Elm St	Separated Bikeway	Sidepath (East Side)
Cheltenham Dr	Wisconsin Ave	Tilbury St	Separated Bikeway	Separated Bike Lanes
Chelton Rd	Sleaford Rd	East-West Hwy	Striped Bikeway	Conventional Bike Lanes
East-West Hwy	Wisconsin Ave	Montgomery Ave	Separated Bikeway	Separated Bike Lanes (Two-Way, Side TBD)
Edgemoor La	Beverly Rd	Arlington Rd	Shared Road	Neighborhood Greenway
	Arlington Rd	Bethesda Metrorail Station	Separated Bikeway	Separated Bike Lanes (two-way, south side)
Elm St	Clarendon Rd	Arlington Rd	Shared Road	Neighborhood Greenway
	Arlington Rd	Wisconsin Ave	Striped Bikeway	Conventional Bike Lanes
Leland St	Wisconsin Ave	46th St	Separated Bikeway	Separated Bike Lanes
Montgomery Ave	Wisconsin Ave	East-West Hwy	Separated Bikeway	Separated Bike Lanes (Two-Way, Side TBD)
Montgomery La	Woodmont Ave	Wisconsin Ave	Separated Bikeway	Separated Bike Lanes (Two-Way, Side TBD)
Neighborhood Connector	Chevy Chase Dr	Bethesda-Chevy Chase (East) Policy Area	Trail	Neighborhood Connector
Norfolk Ave	Rugby Ave	Woodmont Ave	Shared Road	Shared Street*
	Woodmont Ave	Wisconsin Ave	Separated Bikeway	Separated Bike Lanes (One-Way, Boh Sides)
Old Georgetown Rd	Woodmont Ave	Wisconsin Ave	Separated Bikeway	Separated Bike Lanes (Two-Way, Side TBD)
Pearl St	Sleaford Rd	Middleton La	Shared Road	Neighborhood Greenway
	Middleton La	Montgomery Ave	Separated Bikeway	Separated Bike Lanes (One-Way, Both Sides)

Bethesda CBD

Street	From	To	Facility Type	Bikeway Type
	Montgomery Ave	Capital Crescent Trail	Shared Road	Shared Street
Rosedale Ave	Wisconsin Ave	Tilbury St	Shared Road	Neighborhood Greenway
Sleaford Rd	Tilbury St	Chelton Rd	Shared Road	Neighborhood Greenway
St Elmo Ave	Woodmont Ave	Old Georgetown Rd	Striped Bikeway	Conventional Bike Lanes
Strathmore St	Woodmont Ave	Bradley Blvd	Shared Road	Priority Shared Lanes
	Bradley Blvd	Chevy Chase Dr	Separated Bikeway	Sidepath (Side TBD)
Tilbury St	Rosedale Ave	Sleaford Rd	Shared Road	Neighborhood Greenway
Walsh St	46th St	West Ave	Shared Road	Neighborhood Greenway
West Ave	Walsh Ave	Bradley La	Shared Road	Neighborhood Greenway
Waverly St	Wisconsin Ave	East-West Hwy	Striped Bikeway	Conventional Bike Lanes
Wilson La	Cordell Ave	Old Georgetown Rd	Separated Bikeway	Sidepath (North Side)
Woodmont Ave	Bethesda-Chevy Chase (East) Policy Area	Battery La	Separated Bikeway	Sidepath (West Side)

* See Bethesda Downtown Plan

Bethesda-Chevy Chase (East)



Note: White lines represent non-master planned bikeways

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Bethesda-Chevy Chase (East)

Street	From	To	Facility Type	Bikeway Type
MD 355 South Breezeway				
Bethesda Trolley Trail	I-495	Charles St	Trail	Off-Street Trail
	Charles St	South of Lincoln St	Separated Bikeway	Sidepath (East Side)
	Old Georgetown Rd	NIH Property Line	Trail	Off-Street Trail
See Bethesda CBD Policy Area				
Wisconsin Ave	Bradley Blvd	Dorset Ave	Separated Bikeway	Sidepath (East Side)
	Dorset Ave	Oliver St	Separated Bikeway	Sidepath (East Side)
Capital Crescent Trail Breezeway				
Capital Crescent Trail	River Rd	Kenwood Forest La	Trail	Off-Street Trail
See Bethesda CBD Policy Area				
Capital Crescent Trail	Pearl St	End of Newdale Rd	Trail	Off-Street Trail
Brookville Rd - Beach Dr Neighborhood Greenway				
Cummings La	Brookville Rd	Brennon La	Shared Road	Neighborhood Greenway
Brennon La	Cummings La	Shepherd St	Shared Road	Neighborhood Greenway
Shepherd St	Brennon La	Turner La	Shared Road	Neighborhood Greenway
Pomander La	Turner La	Leland St	Shared Road	Neighborhood Greenway
Leland St	Pomander La	Beach Dr	Shared Road	Neighborhood Greenway
Capital Crescent Trail - Bradley La Neighborhood Greenway				
46th St	Elm St	Walsh St	Shared Road	Neighborhood Greenway
Walsh St	46th St	West Ave	Shared Road	Neighborhood Greenway
West Ave	Walsh St	Bradley La	Shared Road	Neighborhood Greenway
Connecticut Ave - Beach Dr Neighborhood Greenway				
Blackthorn St	Connecticut Ave	Glendale Rd	Shared Road	Neighborhood Greenway
Glendale Rd	Blackthorn St	Woodbine St	Shared Road	Neighborhood Greenway
Woodbine St	Glendale Rd	Beach Dr	Shared Road	Neighborhood Greenway
Jones Bridge Rd - East-West Highway Neighborhood Greenway				
Maryland Ave	Jones Bridge Rd	Chelsea La	Shared Road	Neighborhood Greenway
Neighborhood Connector	Chelsea La	Maple Ave	Trail	Neighborhood Connector
Maryland Ave	Maple Ave	Chase Ave	Shared Road	Neighborhood Greenway
Pearl St	Chase Ave	Sleaford Rd	Shared Road	Neighborhood Greenway
Massachusetts Ave Bikeway				
Massachusetts Ave	Capital Crescent Trail	Baltimore Ave	Separated Bikeway	Sidepath (North Side)
Baltimore Ave	Massachusetts Ave	Worthington Dr	Shared Road	Neighborhood Greenway

Bethesda-Chevy Chase (East)

Street	From	To	Facility Type	Bikeway Type
Worthington Dr	Baltimore Ave	District of Columbia	Shared Road	Neighborhood Greenway
Fernwood Rd - Battery La Neighborhood Greenway				
Grant St	Sonoma Rd	Roosevelt St	Shared Road	Neighborhood Greenway
Neighborhood Connector	Roosevelt St	Northfield Rd	Trail	Neighborhood Connector
Moorland La	Northfield Rd	Custer Rd	Shared Road	Neighborhood Greenway
Custer Rd	Moorland La	Lambeth Rd	Shared Road	Neighborhood Greenway
Park La	Lambeth Rd	Battery La	Shared Road	Neighborhood Greenway
Wisconsin Ave - Connecticut Ave Neighborhood Greenway				
Leland St	46th St	East Ave	Shared Road	Neighborhood Greenway
East Ave	Leland St	Stanford St	Shared Road	Neighborhood Greenway
Standford St	East Ave	Rosemary St	Shared Road	Neighborhood Greenway
Rosemary St	Standford St	Connecticut Ave	Shared Road	Neighborhood Greenway
Sonoma Rd - Bradley Blvd Neighborhood Greenway				
Oneida La	Sonoma Rd	Greentree Rd	Shared Road	Neighborhood Greenway
Garfield St	Greentree Rd	Roosevelt St	Shared Road	Neighborhood Greenway
Neighborhood Connector	Roosevelt St	Northfield Rd	Trail	Neighborhood Connector
Garfield St	Northfield Rd	Huntington Pkwy	Shared Road	Neighborhood Greenway
Aberdeen Pl	Huntington Pkwy	Aberdeen Rd	Shared Road	Neighborhood Greenway
Aberdeen Rd	Aberdeen Pl	Bradley Blvd	Shared Road	Neighborhood Greenway
Battery La	Wilson La	Old Georgetown Rd	Shared Road	Neighborhood Greenway
Beach Dr	East West Hwy	District of Columbia	Bikeable Shoulders	Bikeable Shoulders
Bradley Blvd	Aberdeen Rd	Fairfax Rd	Separated Bikeway and Striped Bikeway	Sidepath (East Side) and Conventional Bike Lanes
Brookville Rd	Woodbine St	Western Ave	Shared Road	Priority Shared Lane Markings
Cedar La	Rockville Pike	Elmhirst Pkwy Trail	Separated Bikeway	Sidepath (North Side)
Chase Ave	Tilbury St	Pearl St	Shared Road	Neighborhood Greenway
Connecticut Ave	East-West Hwy	Blackthorn St	Separated Bikeway	Sidepath (East Side)
Cornish Rd	Bradley Blvd	Burling Rd	Shared Road	Neighborhood Greenway
Dorset Ave	Capital Crescent Trail	Little Falls Trail	Separated Bikeway	Sidepath (South Side)
	Little Falls Trail	Wisconsin Ave	Shared Road	Neighborhood Greenway
East Melrose St	Brookville Rd	Nevada Ave	Shared Road	Neighborhood Greenway
Edgemoor La	Exeter Rd	Beverly Rd	Shared Road	Neighborhood Greenway
Elm St	Exfair Rd	Clarendon Rd	Shared Road	Neighborhood Greenway

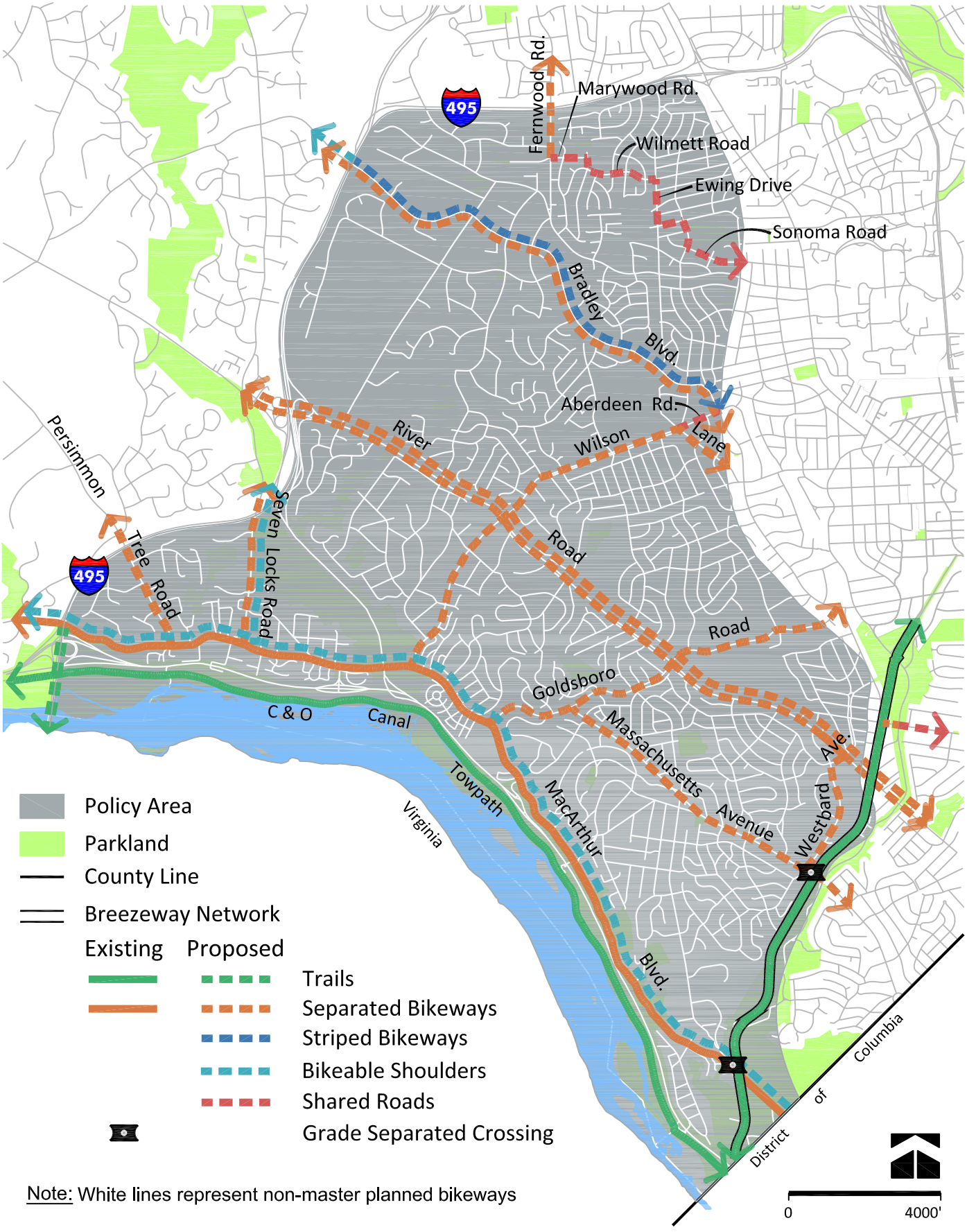
Bethesda-Chevy Chase (East)

Street	From	To	Facility Type	Bikeway Type
Elmhirst Pkwy Trail	Cedar La	Cedar La	Trail	Off-Street Trail
Exeter Rd	Wilson La	Elm St	Shared Road	Neighborhood Greenway
Glenbrook Rd	Battery La	Bradley Blvd	Shared Road	Neighborhood Greenway
Glenbrook Rd	Bradley Blvd	Little Falls Pkwy	Separated Bikeway	Sidepath (West Side)
Greentree Rd	Grant Ave	Old Georgetown Rd	Separated Bikeway	Sidepath (South Side)
Hesketh St	Wisconsin Ave	Kirkside Dr	Shared Road	Neighborhood Greenway
Jones Bridge Rd	Wisconsin Ave	Glenbrook Pkwy	Separated Bikeway	Sidepath (North Side)
	Glenbrook Pkwy	Maryland Ave	Separated Bikeway	Sidepath (Both Sides)
	Maryland Ave	Columbia Country Club	Separated Bikeway	Sidepath (South Side)
Jones Mill Rd	Beach Dr	Jones Bridge Rd	Bikeable Shoulders	Bikeable Shoulders
Kenilworth Drwy	Kensington Pkwy	Montgomery Ave	Shared Road	Neighborhood Greenway
Kensington Pkwy	I-495	Husted Drwy	Separated Bikeway	Sidepath (East Side)
	Husted Drwy	Connecticut Ave	Separated Bikeway	Separated Bike Lanes (Two-Way, East Side)
Kirkside Dr	Hesketh St	District of Columbia	Shared Road	Neighborhood Greenway
Little Falls Pkwy	Glenbrook Rd	Capital Crescent Trail	Separated Bikeway	Sidepath (West Side)
Montgomery Ave	Kenilworth Drwy	Jones Bridge Rd	Shared Road	Neighborhood Greenway
Neighborhood Connector	Bethesda CBD Policy Area	Norwood Rd	Trail	Neighborhood Connector
Nevada Ave	East Melrose St	Western Ave	Shared Road	Neighborhood Greenway
Old Georgetown Rd	I-495	Charles St	Separated Bikeway	Sidepath (East Side)
River Rd	Capital Crescent Trail	Little Falls Pkwy	Separated Bikeway	Sidepath (West Side) and Separated Bike Lanes (East Side)
	Little Falls Pkwy	District of Columbia	Separated Bikeway	Sidepath (East Side)
Rock Creek Trail	Stoneybrook Dr	Rock Creek	Trail	Stream Valley Park Trail
Rockville Pike	I-495	Cedar La	Separated Bikeway	Sidepath (East Side)
	Cedar La	Woodmont Ave	Separated Bikeway	Sidepath (West Side)
Rosedale Ave	Tilbury St	Neighborhood Connector	Shared Road	Neighborhood Greenway
Sleaford Rd	Chelton Rd	Kentbury Dr	Shared Road	Neighborhood Greenway
Sonoma Rd	Hempstead Ave	Grant St	Shared Road	Neighborhood Greenway
W Cedar La	Bethesda Trolley Trail	Rockville Pike	Separated Bikeway	Sidepath (South Side)
Western Ave	River Rd	Cortland Rd	Separated Bikeway	Sidepath (North Side)
Western Ave	Western Grove Urban Park	Kirkside Dr	Separated Bikeway	Separated Bike Lanes (Two-Way, North Side)
	Kirkside Dr	Chevy Chase Cir	Separated Bikeway	Sidepath (North Side)
	Chevy Chase Cir	Brookville Rd	Separated Bikeway	Sidepath (North Side)
Willard Ave	River Rd	Willard Ave Trail	Separated Bikeway	Separated Bike Lanes (One-Way, Both Sides)

Bethesda-Chevy Chase (East)

Street	From	To	Facility Type	Bikeway Type
Willard Ave Trail	River Rd	Willard Ave	Trail	Off-Street Trail
Wilson La	Bradley Blvd	Cordell Ave	Separated Bikeway	Sidepath (North Side)
Wisconsin Ave	Dorset Ave	Oliver St	Separated Bikeway	Sidepath (West Side)
Woodmont Ave	Rockville Pike	Bethesda CBD Policy Area	Separated Bikeway	Sidepath (West Side)

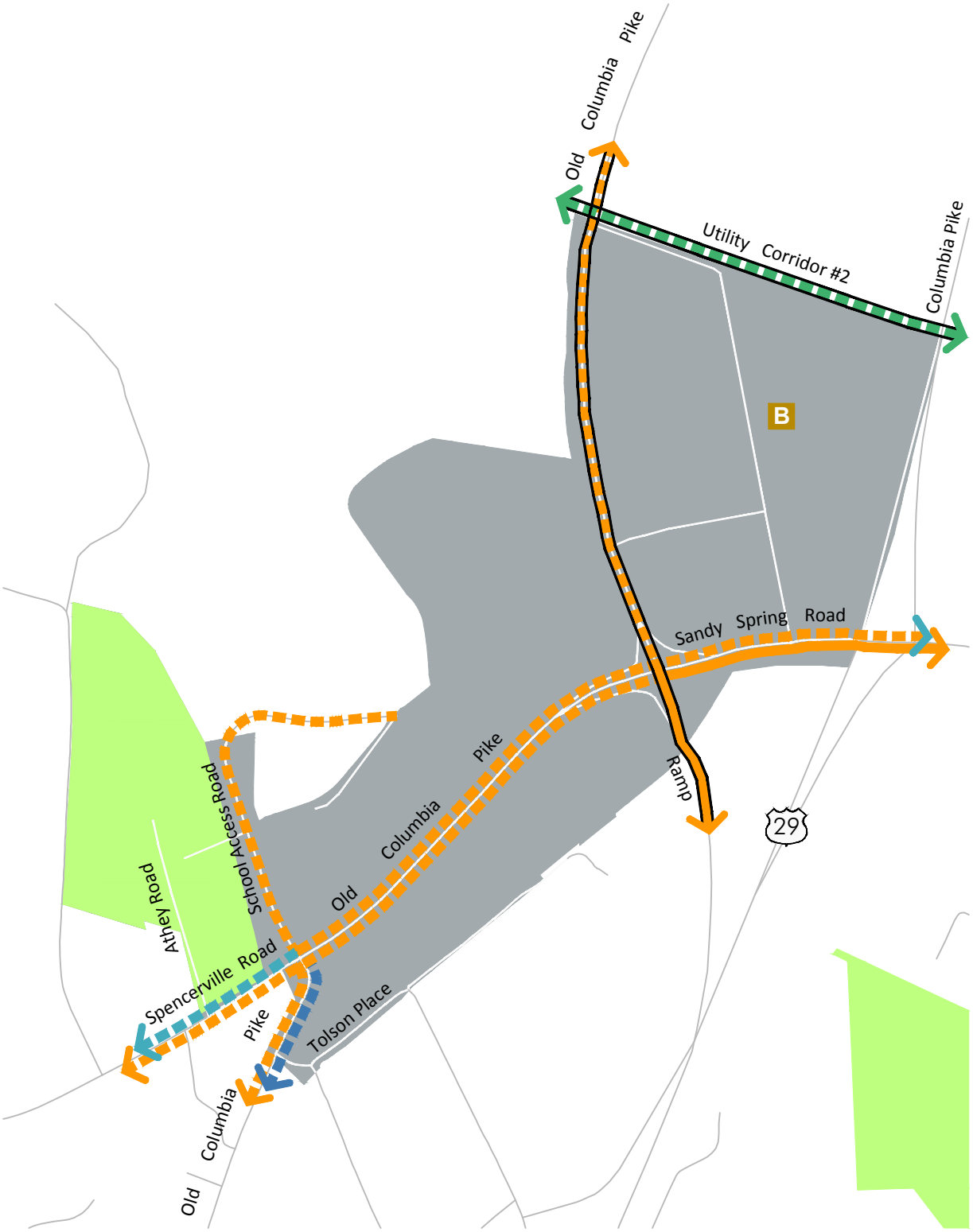
Bethesda-Chevy Chase (West)



Bethesda-Chevy Chase (West)

Street	From	To	Facility Type	Bikeway Type
Capital Crescent Trail Breezeway				
Capital Crescent Trail	District of Columbia	River Rd	Trail	Off-Street Trail
Fernwood Rd - Battery La Neighborhood Greenway				
Marywood Rd	Fernwood Rd	Kirkdale Rd	Shared Road	Neighborhood Greenway
Kirkdale Rd	Marywood Rd	Wilmett Rd	Shared Road	Neighborhood Greenway
Wilmett Rd	Kirkdale Rd	Ewing Dr	Shared Road	Neighborhood Greenway
Ewing Dr	Wilmett Rd	Johnson Ave	Shared Road	Neighborhood Greenway
Johnson Ave	Ewing Dr	Lindale Dr	Shared Road	Neighborhood Greenway
Lindale Dr	Johnson Ave	Sonoma Rd	Shared Road	Neighborhood Greenway
Sonoma Rd	Lindale Dr	Hempstead Ave	Shared Road	Neighborhood Greenway
Aberdeen Rd	Wilson La	Bradley Blvd	Shared Road	Neighborhood Greenway
Bradley Blvd	I-495	Aberdeen Rd	Separated Bikeway and Striped Bikeway	Sidepath (East Side) and Conventional Bike Lanes
C&O Canal Towpath	I-495	District of Columbia	Trail	Off-Street Trail
Fernwood Rd	I-495	Marywood Rd	Separated Bikeway	Sidepath (East Side)
Goldsboro Rd	MacArthur Blvd	Bradley Blvd	Separated Bikeway	Separated Bike Lanes (One-Way, Both Sides)
I-495	Virginia	Mac Arthur Blvd	Trail	Off-Street Trail
MacArthur Blvd	I-495	District of Columbia	Separated Bikeway and Bikeable Shoulders	Sidepath (West Side) and Bikeable Shoulders
Massachusetts Ave	Goldsboro Rd	Capital Crescent Trail	Separated Bikeway	Sidepath (North Side)
Persimmon Tree Rd	I-495	MacArthur Blvd	Separated Bikeway	Sidepath (West Side)
River Rd	I-495	Westbard Ave Ext	Separated Bikeway	Sidepath (Both Sides)
	Westbard Ave Ext	Capital Crescent Trail	Separated Bikeway	Sidepath (West Side) and Separated Bike Lanes (East Side)
Seven Locks Rd	I-495	Mac Arthur Blvd	Separated Bikeway and Bikeable Shoulders	Sidepath (East Side) and Bikeable Shoulders
Westbard Ave	River Rd	Westbard Cir	Separated Bikeway	Separated Bike Lanes (One-Way, Both Sides)
	Westbard Cir	Massachusetts Ave	Separated Bikeway	Sidepath (West Side)
Wilson La	MacArthur Blvd	Bradley Blvd	Separated Bikeway	Sidepath (North Side)

Burtonsville Town Center



Note: White lines represent non-master planned bikeways

Burtonsville Town Center

Bikeway	From	To	Facility Type	Bikeway Type
US 29 Corridor Breezeway				
Old Columbia Pike	Utility Corridor #2	Sandy Spring Rd	Separated Bikeway	Separated Bike Lanes (Two-Way, East Side)
Columbia Pike Ramp	Sandy Spring Rd	Fairland / Colesville Policy Area	Separated Bikeway	Sidepath (West Side)
Old Columbia Pike	Sandy Spring Rd	School Access Rd	Separated Bikeway	Sidepath (South Side) and Separated Bike Lanes (North Side)
Old Columbia Pike	Spencerville Rd	Tolson Pl	Separated Bikeway and Striped Bikeway	Sidepath (West Side) and Conventional Bike Lanes
Sandy Spring Rd	Old Columbia Pike	Columbia Pike	Separated Bikeway	Sidepath (South Side) and Separated Bike Lanes (North Side)
School Access Rd	Burtonsville ES	Old Columbia Pike	Separated Bikeway	Sidepath (West Side)

Chevy Chase Lake

Policy Area

Parkland

P Purple Line Station (Proposed)

Breezeway Network

Existing	Proposed	
		Trails
		Separated Bikeways
		Bikeable Shoulders
		Shared Roads
		Grade Separated Crossing
		Bicycle Parking Station

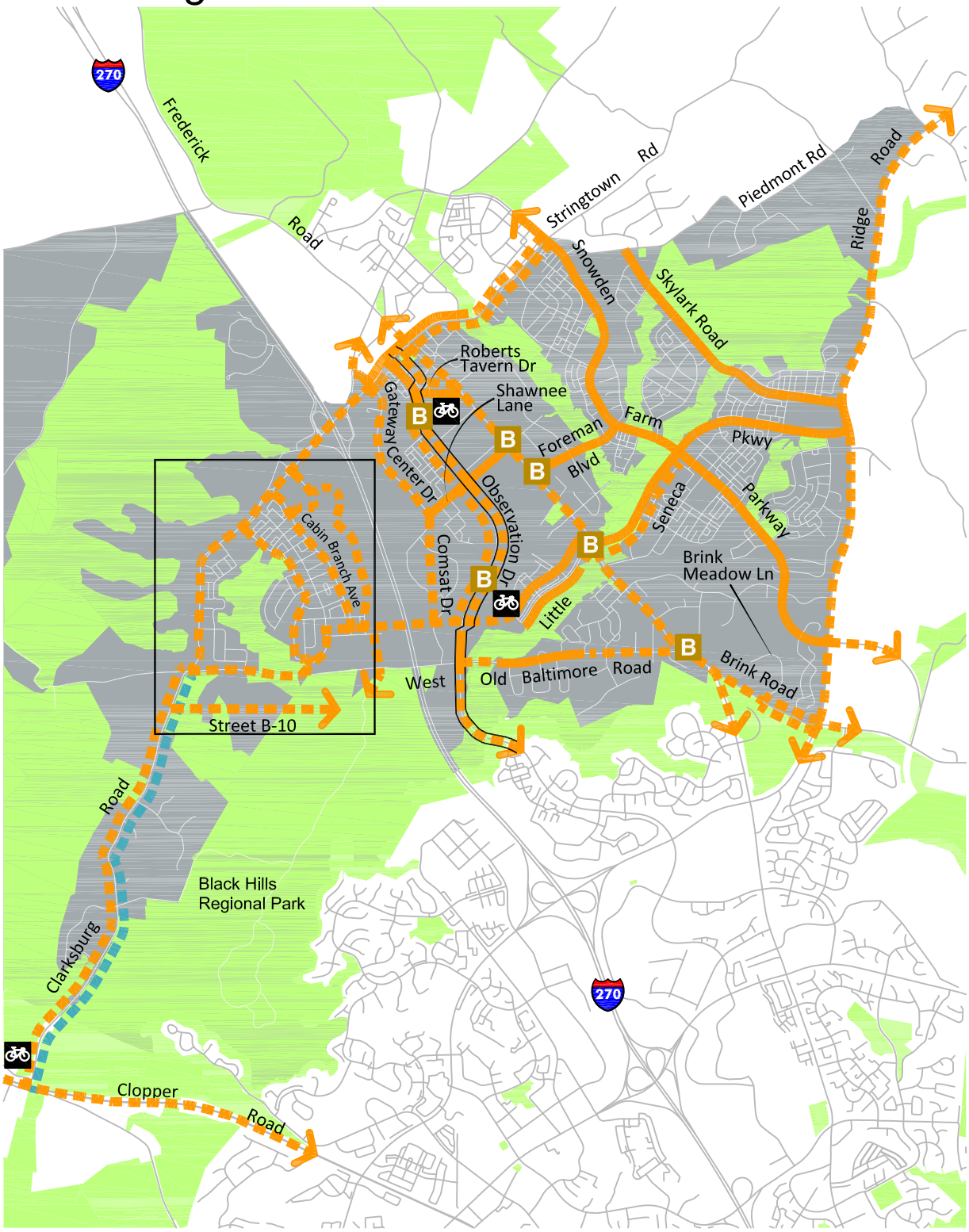
Note: White lines represent non-master planned bikeways

0 1000'

Chevy Chase Lake

Street	From	To	Facility Type	Bikeway Type
Capital Crescent Trail Breezeway				
Capital Crescent Trail	End of Newdale Rd	Rock Creek	Trail	Off-Street Trail
Chevy Chase Lake Dr	Connecticut Ave	Coquelin Run Trail	Separated Bikeway	Sidepath (North Side)
Connecticut Ave	Jones Bridge Rd	Manor Rd	Separated Bikeway	Sidepath (East Side)
	Manor Rd	Laird Pl	Separated Bikeway	Separated Bike Lanes (Two-Way, East Side)
	Laird Pl	Newdale Rd	Separated Bikeway	Separated Bike Lanes (Two-Way, East Side), Sidepath (West Side)
	Newdale Rd	Chevy Chase Lake Dr	Separated Bikeway	Separated Bike Lanes (Two-Way, East Side)
	Chevy Chase Lake Dr	East West Hwy	Separated Bikeway	Sidepath (East Side)
Coquelin Run Trail	Jones Bridge Rd	Chevy Chase Lake Dr	Trail	Off-Street Trail
East West Hwy	Beach Dr	Rock Creek	Separated Bikeway	Sidepath (North Side)
Jones Bridge Rd	Columbia Country Club	Jones Mill Rd	Separated Bikeway	Sidepath (South Side)
Jones Mill Rd	Jones Bridge Rd	East West Hwy	Bikeable Shoulders	Bikeable Shoulders
Manor Rd	Connecticut Ave	Jones Bridge Rd	Separated Bikeway	Sidepath (South Side)
Newdale Rd	Terminus	Connecticut Ave	Separated Bikeway	Sidepath (South Side)

Clarksburg



Policy Area
Parkland
B Bus Rapid Transit Station (Proposed)
Breezeway Network

Existing	Proposed	
		Separated Bikeways
		Bikeable Shoulders
		Bicycle Parking Station

Note: White lines represent non-master planned bikeways

0 4000'

Image Forthcoming

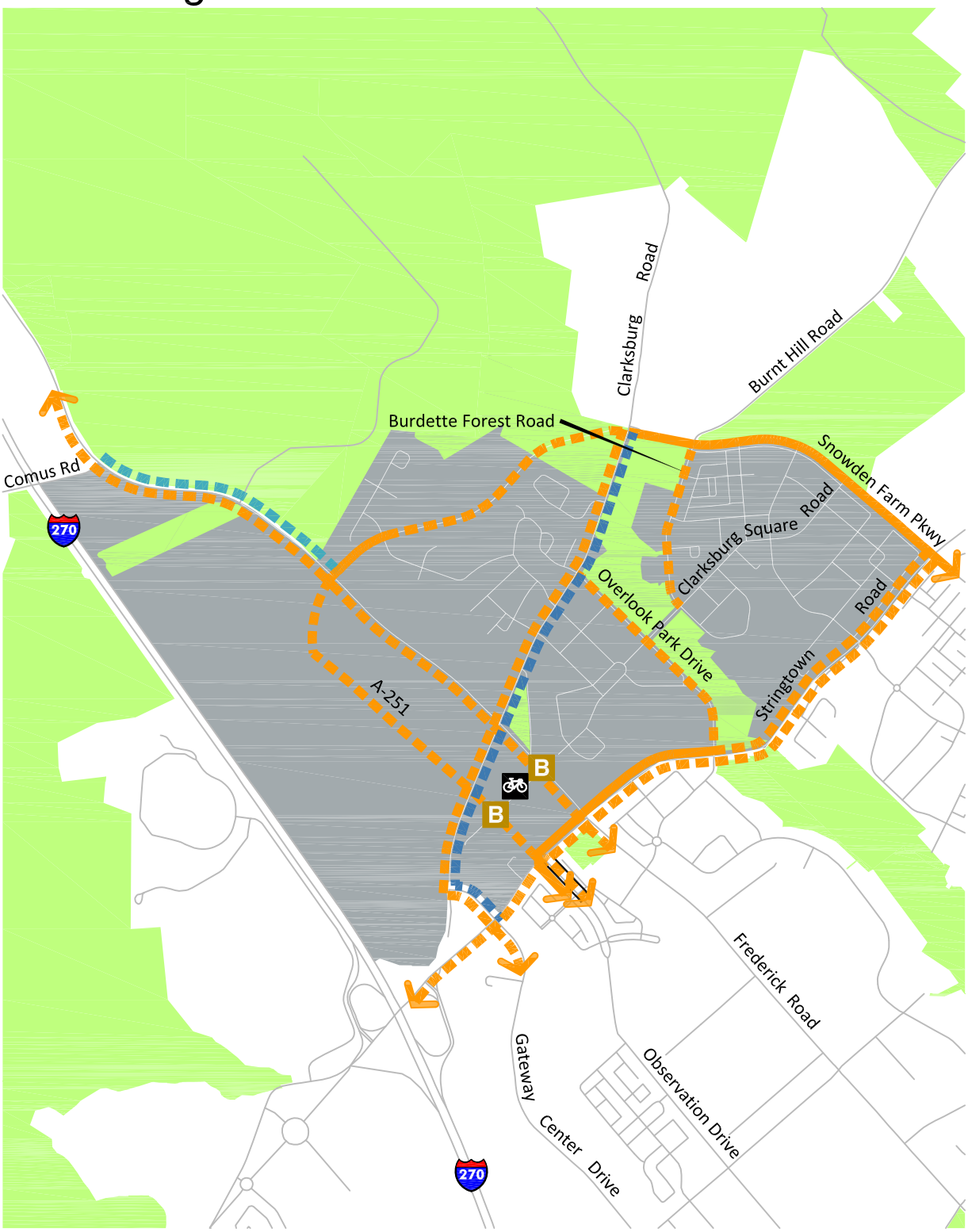
Clarksburg

Bikeway	From	To	Facility Type	Bikeway Type
MD 355 North Breezeway				
Observation Dr Ext	Stringtown Rd	Little Seneca Creek	Separated Bikeway	Sidepath (Side TBD)
Barnesville Rd	Boyds MARC Station	Clopper Rd	Separated Bikeway	Sidepath (South Side)
Brink Rd	Frederick Rd	Brink Meadow La	Separated Bikeway	Sidepath (South Side)
	Brink Meadow La	Ridge Rd	Separated Bikeway	Sidepath (Both Sides)
Broadway Ave	Little Seneca Pkwy	West Old Baltimore Rd	Separated Bikeway	Sidepath (West Side)
Byrne Park Dr	Clarksburg Rd	Fulmer Ave	Separated Bikeway	Sidepath (West Side)
Cabin Branch Ave	Clarksburg Rd	Tribute Pkwy	Separated Bikeway	Sidepath (East Side)
	Tribute Pkwy	Little Seneca Pkwy	Separated Bikeway	Separated Bike Lanes (Two-Way, East Side)
Clarksburg Outlet Entrance	Clarksburg Rd	Outlet Rd	Separated Bikeway	Separated Bike Lanes (Side TBD)
Clarksburg Rd	Gateway Center Dr	West Old Baltimore Rd	Separated Bikeway	Sidepath (East Side)
	West Old Baltimore Rd	Ten Mile Creek	Separated Bikeway and Bikeable Shoulders	Sidepath (East Side) and Bikeable Shoulders
Clopper Rd	Clarksburg Rd	Little Seneca Creek	Separated Bikeway	Sidepath (East Side)
Comsat Dr	Shawnee La	Little Seneca Pkwy	Separated Bikeway	Separated Bike Lanes (Side TBD)
Foreman Blvd	Frederick Rd	Snowden Farm Pkwy	Separated Bikeway	Sidepath (South Side)
Frederick Rd	Stringtown Rd	Brink Rd	Separated Bikeway	Sidepath (West Side)
Fulmer Ave	Bryne Park Ave	Broadway Ave	Separated Bikeway	Sidepath (West Side)
Gateway Center Dr	Stringtown Rd	Shawnee La	Separated Bikeway	Sidepath (East Side)
Little Seneca Pkwy	Broadway Ave	Snowden Farm Pkwy	Separated Bikeway	Sidepath (Both Sides)
Little Seneca Pkwy	Snowden Farm Pkwy	Ridge Rd	Separated Bikeway	Sidepath (North Side)
Observation Dr	Stringtown Rd	Roberts Tavern Dr	Separated Bikeway	Sidepath (Both Sides)
Outlet Rd	Cabin Branch Ave	Plover St	Separated Bikeway	Sidepath (South Side)
Plover St	Outlet Rd	Little Seneca Pkwy	Separated Bikeway	Separated Bike Lanes (One-Way on Both Sides of Street)
Ridge Rd	Kings Valley Rd	Brink Rd	Separated Bikeway	Sidepath (West Side)
Roberts Tavern Dr	Observation Dr	Frederick Rd	Separated Bikeway	Sidepath (Both Sides)
Shawnee La	Gateway Center Dr	Frederick Rd	Separated Bikeway	Sidepath (South Side)
Sidepath	Little Seneca Pkwy	Black Hills Regional park	Separated Bikeway	Sidepath (Side TBD)
Skylark Rd	Piedmont Rd	Ridge Rd	Separated Bikeway	Sidepath (South Side)
Snowden Farm Pkwy	Stringtown Rd	Ridge Rd	Separated Bikeway	Sidepath (South Side)
Street B-10	Clarksburg Rd	Black Hills Regional Park	Separated Bikeway	Sidepath (Side TBD)
Stringtown Rd	Snowden Farm Pkwy	Gateway Center Dr	Separated Bikeway	Sidepath (Both Sides)
West Old Baltimore Rd	Observation Dr	Frederick Rd	Separated Bikeway	Sidepath (South Side)

Clarksburg

Bikeway	From	To	Facility Type	Bikeway Type
West Old Baltimore Rd	Clarksburg Rd	Broadway Ave	Separated Bikeway	Sidepath (Side TBD)

Clarksburg Town Center

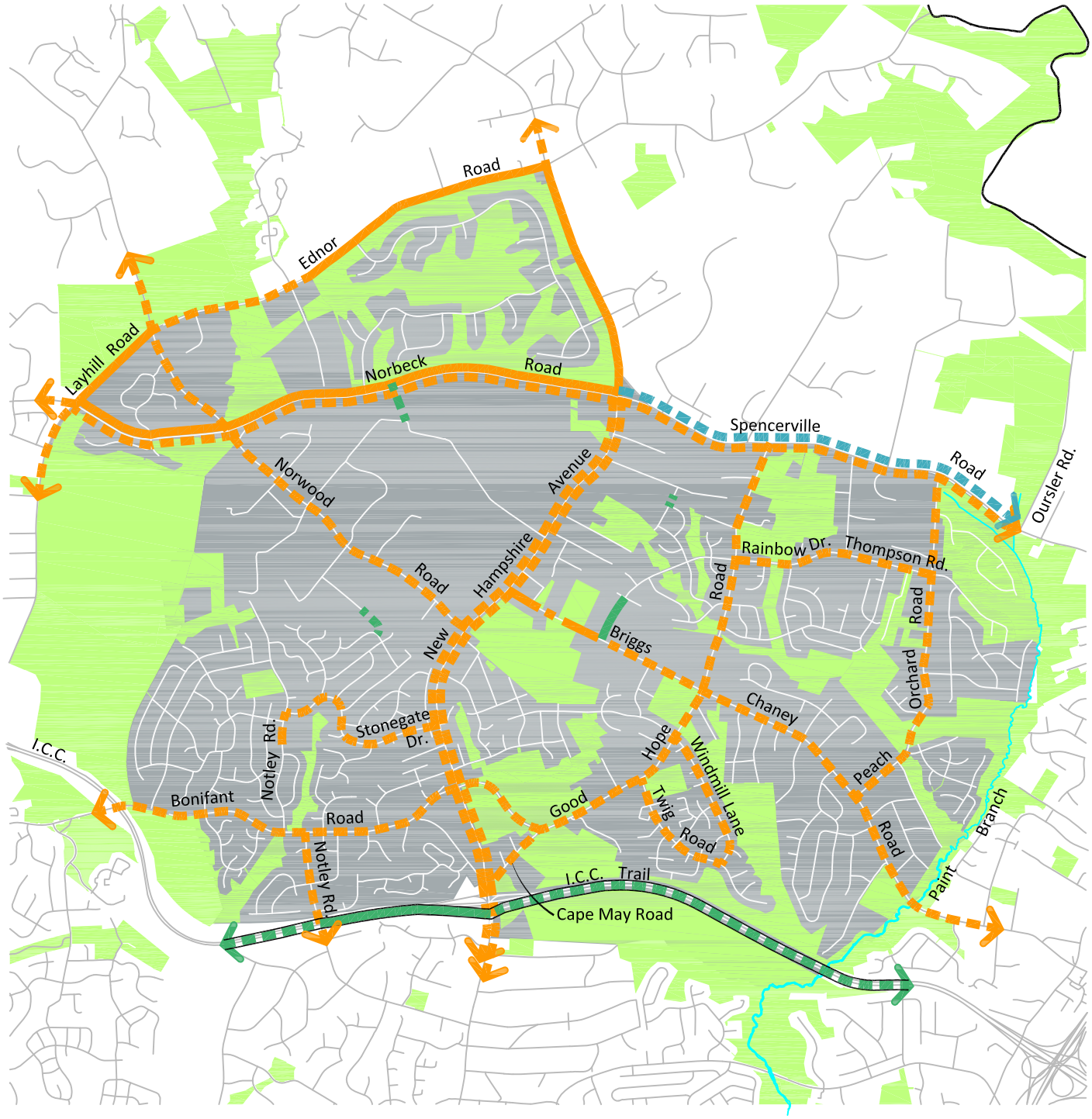


Note: White lines represent non-master planned bikeways

Clarksburg Town Center

Bikeway	From	To	Facility Type	Bikeway Type
Burdette Forest Rd	Snowden Farm Pkwy	Clarksburg Square Rd	Separated Bikeway	Sidepath (West Side)
Clarksburg Rd	Snowden Farm Rd	Gateway Center Dr	Separated Bikeway and Striped Bikeway	Sidepath (East Side) and Conventional Bike Lanes
Frederick Rd	Comus Rd	Snowden Farm Pkwy	Separated Bikeway and Bikeable Shoulders	Sidepath (West Side) and Bikeable Shoulders
	Snowden Farm Pkwy	Stringtown Rd	Separated Bikeway	Sidepath (East Side)
Gateway Center Dr	Clarksburg Rd	Stringtown Rd	Separated Bikeway and Striped Bikeway	Sidepath (East Side) and Conventional Bike Lanes
Overlook Park Dr	Clarksburg Rd	Stringtown Rd	Separated Bikeway	Sidepath (East Side)
Snowden Farm Pkwy	Frederick Rd	Stringtown Rd	Separated Bikeway	Sidepath (South Side)
Street A-251	Frederick Rd	Stringtown Rd	Separated Bikeway	Sidepath (Side TBD)
Stringtown Rd	Snowden Farm Pkwy	Gateway Center Dr	Separated Bikeway	Sidepath (Both Sides)

Cloverly



Policy Area
Parkland
County Line
Breezeway Network

Existing
Proposed

Trails
Separated Bikeways
Bikeable Shoulders

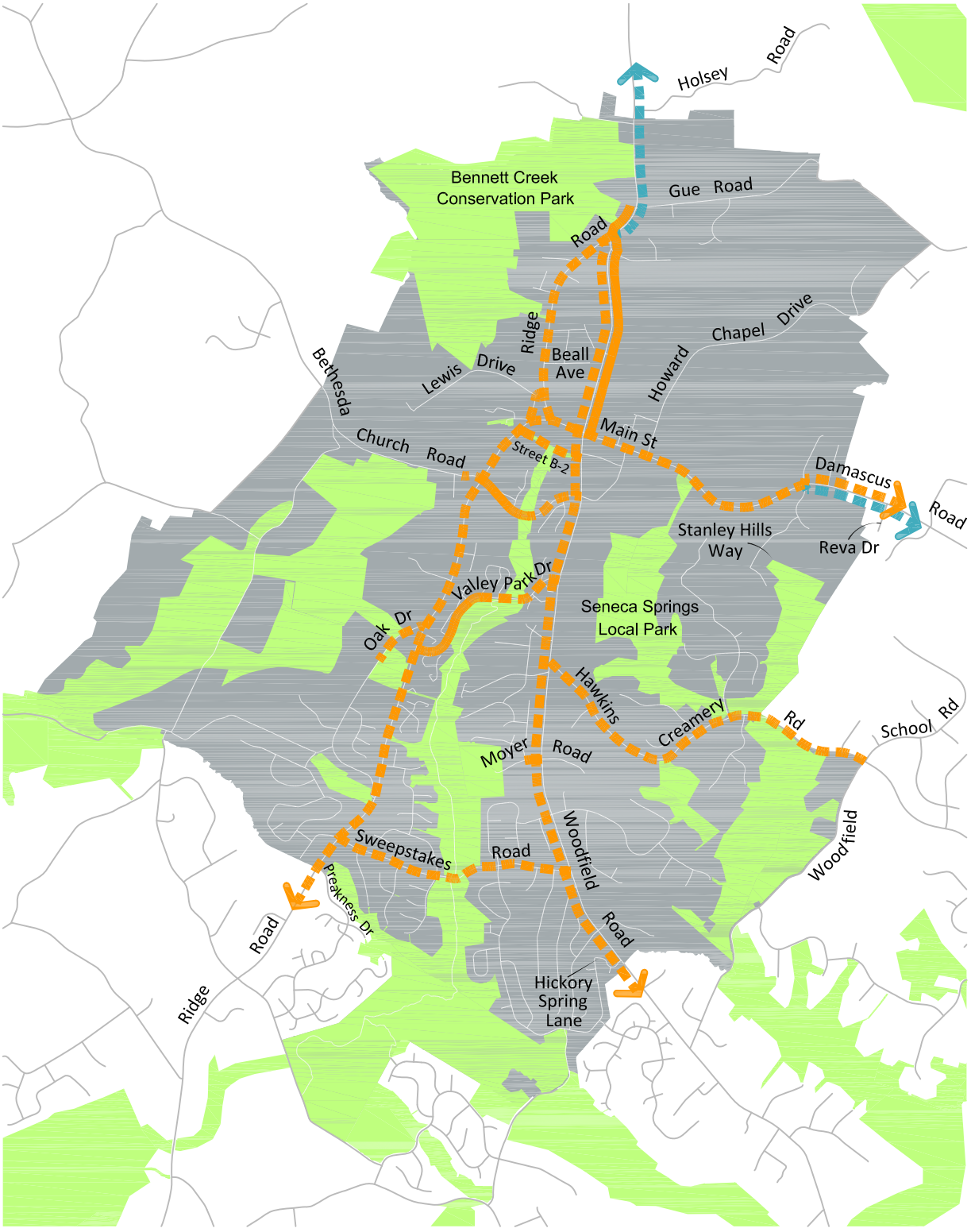
Note: White lines represent non-master planned bikeways

0 3500'

Cloverly

Bikeway	From	To	Facility Type	Bikeway Type
Intercounty Connector Trail Breezeway				
Bonifant Rd	Intercounty Connector Trail	Notley Rd	Separated Bikeway	Sidepath (South Side)
Notley Rd	Bonifant Rd	Intercounty Connector	Separated Bikeway	Sidepath (East Side)
See Fairland-Colesville Policy Area				
Intercounty Connector Trail	New Hampshire Ave	Fairland-Colesville Policy Area	Trail	Off-Street Trail
Bonifant Rd	Intercounty Connector Trail	New Hampshire Ave	Separated Bikeway	Sidepath (South Side)
Briggs Chaney Rd	New Hampshire Ave	Paint Branch	Separated Bikeway	Sidepath (North Side)
Cape May Rd	Good Hope Rd	New Hampshire Ave	Separated Bikeway	Sidepath (South Side)
Ednor Rd	New Hampshire Ave	Norwood Rd	Separated Bikeway	Sidepath (East Side)
Good Hope Rd	New Hampshire Ave	Spencerville Rd	Separated Bikeway	Sidepath (East Side)
Layhill Rd	Norwood Rd	Norbeck Rd	Separated Bikeway	Sidepath (East Side)
New Hampshire Ave	Ednor Rd	Norbeck Rd	Separated Bikeway	Sidepath (West Side)
	Norbeck Rd	Intercounty Connector Trail	Separated Bikeway	Sidepath (Both Sides)
Norbeck Rd	Layhill Rd	New Hampshire Ave	Separated Bikeway	Sidepath (Both Sides)
Norwood Rd	Layhill Rd	New Hampshire Ave	Separated Bikeway	Sidepath (East Side)
Notley Rd	Stonegate Dr	Stonegate Elementary School	Separated Bikeway	Sidepath (East Side)
Peach Orchard Rd	Spencerville Rd	Briggs Chaney Rd	Separated Bikeway	Sidepath (Side TBD)
Rainbow Dr	Good Hope Rd	Thompson Rd	Separated Bikeway	Sidepath (South Side)
Spencerville Rd	New Hampshire Ave	Oursler Rd	Separated Bikeway and Bikeable Shoulder	Sidepath (North Side) and Bikeable Shoulder
Stonegate Dr	Notley Rd	New Hampshire Ave	Separated Bikeway	Sidepath (Side TBD)
Thompson Rd	Rainbow Dr	Peachtree Rd	Separated Bikeway	Sidepath (South Side)
Twig Rd	Good Hope Rd	Windmill La	Separated Bikeway	Sidepath (Side TBD)
Windmill La	Good Hope Rd	Twig Rd	Separated Bikeway	Sidepath (Side TBD)

Damascus

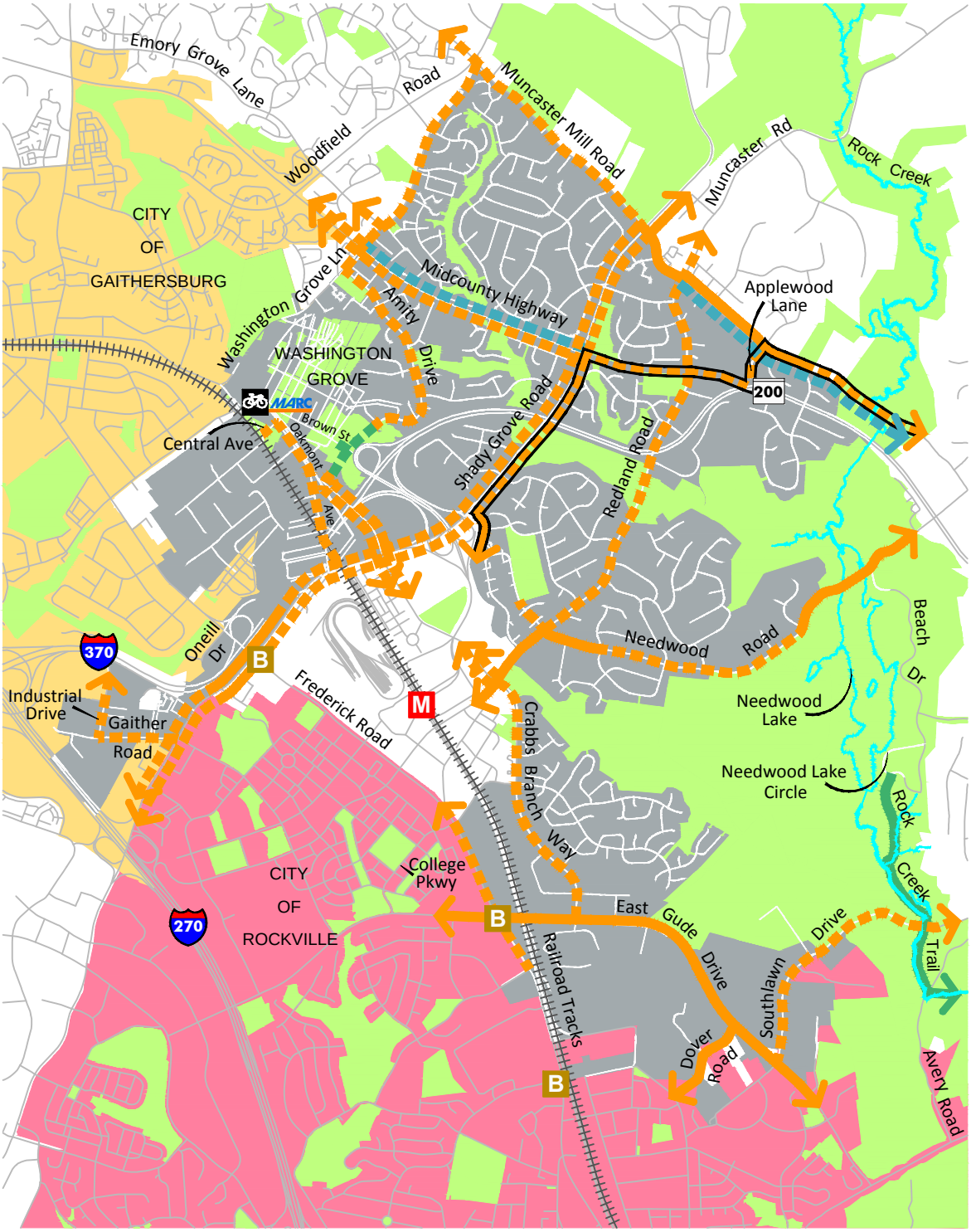


Note: White lines represent non-master planned bikeways

Damascus

Bikeway	From	To	Facility Type	Bikeway Type
Bethesda Church Rd	Damascus Elementary School	Ridge Rd	Separated Bikeway	Sidepath (North Side)
	Ridge Rd	Woodfield Rd	Separated Bikeway	Sidepath (South Side)
Damascus Rd	Howard Chapel Dr	Stanley Hills Way	Separated Bikeway	Sidepath (South Side)
	Stanley Hills Way	Reva Dr	Separated Bikeway and Bikeable Shoulders	Sidepath (South Side) and Bikeable Shoulders
Hawkins Creamery Rd	Woodfield Rd	Woodfield School Rd	Separated Bikeway	Sidepath (Side TBD)
High Corner St	Ridge Rd	Lewis Dr	Separated Bikeway	Separated Bike Lanes (Two-Way, North Side)
Lewis Dr	High Corner St	Main St	Separated Bikeway	Separated Bike Lanes (Two-Way, West Side)
Main St	Lewis Dr	Woodfield Rd	Separated Bikeway	Separated Bike Lanes (Two-Way, South Side)
	Woodfield Rd	Howard Chapel Dr	Separated Bikeway	Sidepath (South Side)
Moyer Rd	Clearspring Elementary Schoo	Woodfield Rd	Separated Bikeway	Sidepath or Separated Bike Lanes (South Side)
Oak Dr	Ridge Rd	John T Baker Middle School	Separated Bikeway	Sidepath (West Side)
Ridge Rd	Rural East Policy Area	Gue Rd	Bikeable Shoulders	Bikeable Shoulders
	Gue Rd	Woodfield Rd	Separated Bikeway and Bikeable Shoulders	Sidepath (East Side) and Bikeable Shoulders
	Woodfield Rd	Main St	Separated Bikeway	Sidepath (East Side)
	Beall Ave	Main St	Separated Bikeway	Separated Bike Lanes (East Side)
Ridge Rd	Main St	Bethesda Church Rd	Separated Bikeway	Separated Bike Lanes (Two-Way, East Side)
	Bethesda Church Rd	Oak Dr	Separated Bikeway	Sidepath (East Side)
	Oak Dr	Preakness Dr	Separated Bikeway	Sidepath (West Side)
Street B-2	Ridge Rd	Woodfield Rd	Separated Bikeway	Sidepath (South Side)
Sweepstakes Rd	Ridge Rd	Woodfield Rd	Separated Bikeway	Sidepath (South Side)
Valley Park Dr	Ridge Rd	Woodfield Rd	Separated Bikeway	Sidepath (North Side)
Woodfield Rd	Ridge Rd	Beall Ave	Separated Bikeway	Sidepath (Both Sides)
	Beall Ave	Main St	Separated Bikeway	Sidepath (East Side) and Separated Bike Lanes (West Side)
	Main St	Hickory Spring La	Separated Bikeway	Sidepath (West Side)

Derwood



- Policy Area
- Parkland
- City of Gaithersburg
- City of Rockville
- M — Metro Rail Station
- B — Bus Rapid Transit Station (Proposed)
- MARC — MARC Station
- Breezeway Network

Existing	Proposed	
		Trails
		Separated Bikeways
		Bikeable Shoulders
		Shared Roads
		Bicycle Parking Station

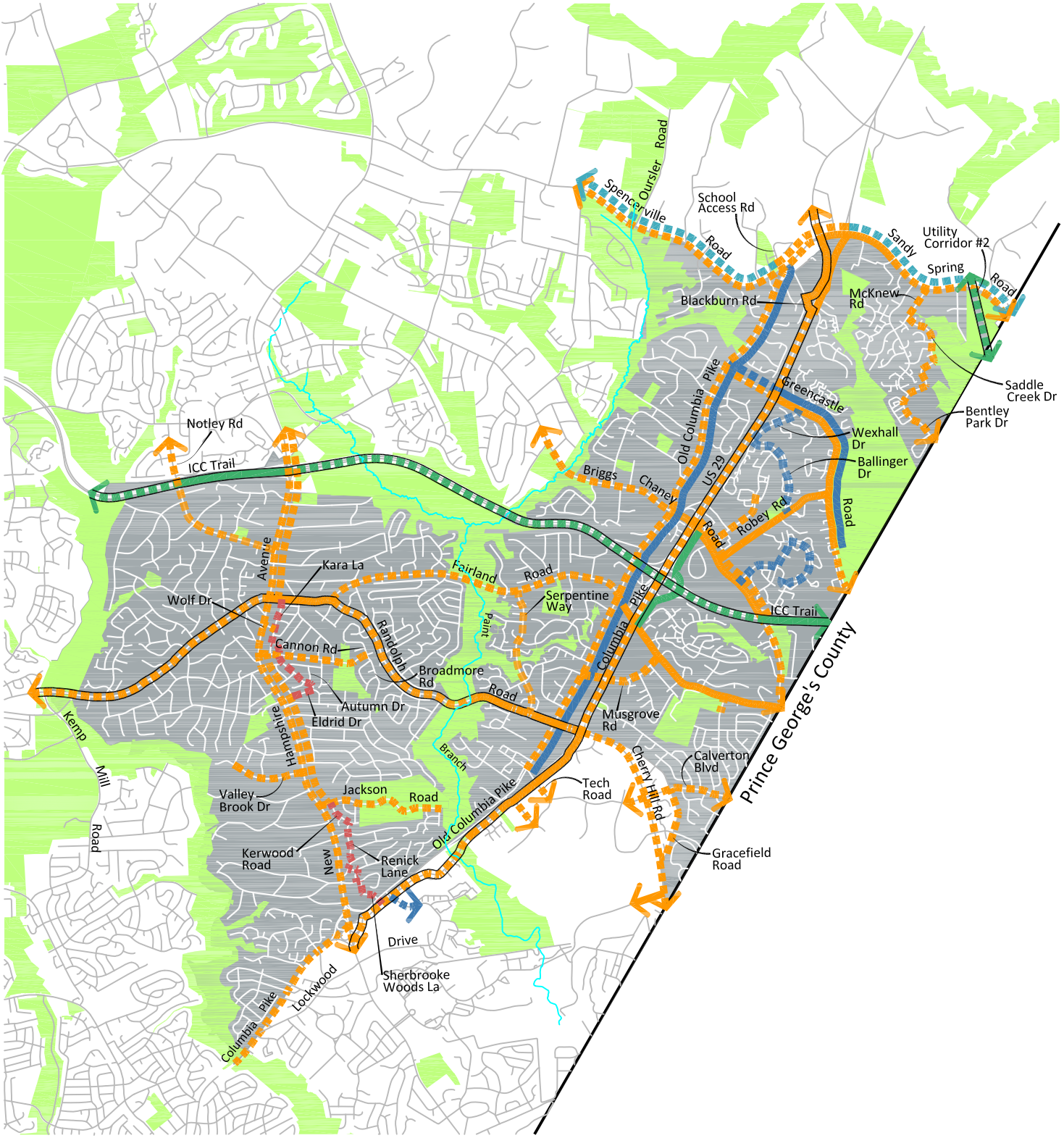
Note: White lines represent non-master planned bikeways

0 3400'

Derwood Policy Area

Bikeway	From	To	Facility Type	Bikeway Type
Intercounty Connector Trail Breezeway				
Shady Grove Rd	Shady Grove Access Rd	Midcounty Hwy	Separated Bikeway	Sidepath (South Side)
Midcounty Hwy	Shady Grove Rd	Applewood La	Separated Bikeway	Sidepath (Side TBD)
Applewood La	Midcounty Hwy	Muncaster Mill Rd	Separated Bikeway	Sidepath (East Side)
Muncaster Mill Rd	Applewood La	Rock Creek	Separated Bikeway and Bikeable Shoulders	Sidepath (West Side) and Bikeable Shoulders
Amity Dr	Washington Grove La	Piedmont Crossing LP Trail	Separated Bikeway	Sidepath (North Side)
Crabbs Branch Way	Redland Rd	East Gude Dr	Separated Bikeway	Sidepath (West Side)
Crabbs Branch Way	Northern Terminus	Shady Grove Rd	Separated Bikeway	Sidepath (Both Sides)
East Gude Dr	Frederick Ave	Southlawn La	Separated Bikeway	Sidepath (West Side)
Frederick Rd	O'Neill Dr	Shady Grove Rd	Separated Bikeway	Sidepath (Both Sides)
Frederick Rd	Paramount Dr	College Pkwy	Separated Bikeway	Sidepath (East Side)
Gaither Rd	Industrial Dr	Shady Grove Rd	Separated Bikeway	Sidepath (Side TBD)
Industrial Dr	City of Gaithersburg	Gaither Rd	Separated Bikeway	Sidepath (Side TBD)
Midcounty Hwy	Washington Grove La	Shady Grove Rd	Separated Bikeway and Bikeable Shoulders	Sidepath (Sde TBD) and Bikeable Shoulders
Muncaster Mill Rd	Woodfield Rd	Muncaster Rd	Separated Bikeway	Sidepath (West Side)
Muncaster Mill Rd	Muncaster Rd	Rock Creek	Separated Bikeway and Bikeable Shoulders	Sidepath (West Side) and Bikeable Shoulders
Needwood Rd	Keyport Ter	Redland Rd	Separated Bikeway	Sidepath (East Side)
	Redland Rd	Beach Dr	Separated Bikeway	Sidepath (South Side)
Oakmont Ave	Central Ave	Shady Grove Rd	Separated Bikeway	Sidepath (East Side)
Piedmont Crossing LP Trail	Amity Dr	Crabbs Branch Way	Trail	Off-Street Trail
Piedmont Crossing LP Trail	Brown St	Crabbs Branch Way	Trail	Off-Street Trail
Redland Rd	Muncaster Mill Rd	Needwood Rd (North)	Separated Bikeway and Bikeable Shoulders	Sidepath (North Side) and Bikeable Shoulders
	Needwood Rd (North)	Needwood Rd (South)	Separated Bikeway and Bikeable Shoulders	Sidepath (North Side)
Rock Creek Trail	Needwood Lake Cir	Avery Rd	Trail	Stream Valley Park Trail
Shady Grove Rd	City of Rockville	Muncaster Mill Rd	Separated Bikeway	Sidepath (Both Sides)
Southlawn La	Rock Creek Trail	East Gude Dr	Separated Bikeway	Sidepath (Side TBD)
Washington Grove La	Mineral Springs Dr	Emory Grove Rd	Separated Bikeway	Sidepath (West Side)

Fairland/Colesville



Policy Area
Parkland
County Line
Breezeway Network

Existing	Proposed
	Trails
	Separated Bikeways
	Striped Bikeways
	Bikeable Shoulders
	Shared Roads

Note: White lines represent non-master planned bikeways

0 5000'

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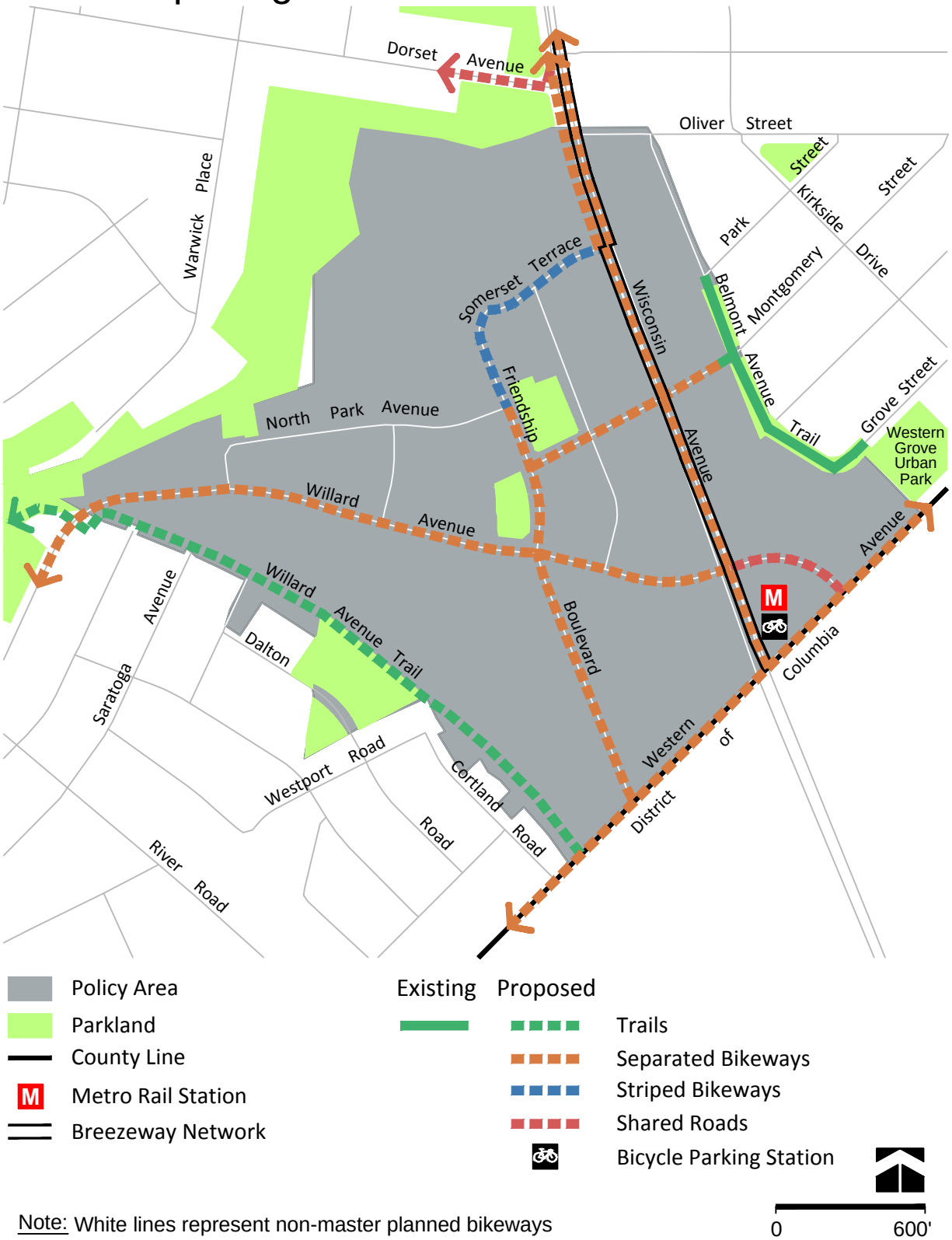
Fairland - Colesville

Bikeway	From	To	Facility Type	Bikeway Type
Intercounty Connector Trail Breezeway				
Intercounty Connector Trail	Notley Rd	New Hampshire Ave	Trail	Off-Street Trail
See Cloverly Policy Area				
Intercounty Connector Trail	Cloverly Policy Area	Prince George's County	Trail	Off-Street Trail
US 29 Corridor Breezeway				
Columbia Pike	Burtonsville Town Center Policy Area	Blackburn Rd	Separated Bikeway	Sidepath (West Side)
Columbia Pike	Blackburn Rd	Tech Rd	Separated Bikeway	Sidepath (East Side)
Tech Rd	Columbia Pike	Old Columbia Pike	Separated Bikeway	Separated Bike Lanes (One-Way, Both Sides)
Germantown - Burtonsville Breezeway				
Utility Corridor #2	Sandy Spring Rd	Prince George's County	Trail	Off-Street Trail
Randolph Rd Breezeway				
Randolph Rd	Kemp Mill Rd	Fairland Rd	Separated Bikeway	Sidepath (North Side)
Randolph Rd	Fairland Rd	Columbia Pike	Separated Bikeway	Sidepath (South Side)
Colesville - White Oak Neighborhood Greenway				
Kara La	Randolph Rd	Autumn Dr	Shared Road	Neighborhood Greenway
Autumn Dr	Kara La	Eldrid Dr	Shared Road	Neighborhood Greenway
Eldrid Dr	Autumn Dr Trail	New Hampshire Ave	Shared Road	Neighborhood Greenway
New Hampshire Ave	Eldrid Dr	Jackson Rd	Separated Bikeway	Sidepath (East Side)
Kerwood Rd	Jackson Rd	Renick La	Shared Road	Neighborhood Greenway
Renick La	Kerwood Rd	Tracy Dr	Shared Road	Neighborhood Greenway
Tracy Dr	Renick La	Kathryn Rd	Shared Road	Neighborhood Greenway
Katryn Rd	Tracy Dr	Neighborhood Connector	Shared Road	Neighborhood Greenway
Neighborhood Connector	Katryn Rd	Heartfields Dr	Trail	Neighborhood Connector
Heartfields Dr	Neighborhood Connector	Sherbrooke Woods La	Shared Road	Neighborhood Greenway
Sherbrooke Woods La	Heartfields Dr	Milestone Dr	Shared Road	Neighborhood Greenway
Milestone Dr	Sherbrooke Woods La	Stewart La	Separated Bikeway	Sidepath (West Side)
Stewart La	Milestone Dr	Columbia Pike	Separated Bikeway	Sidepath (Side TBD)
Aston Manor Dr	Briggs Chaney Rd	Sheffield Manor Dr	Striped Bikeway	Buffered Bike Lanes
Ballinger Dr	Wexhall Dr	Robey Rd	Striped Bikeway	Buffered Bike Lanes
Bentley Park Dr	Saddle Creek Dr	Prince George's County	Separated Bikeway	Sidepath (East Side)
Blackburn Rd	Columbia Pike SB Ramp	Columbia Pike	Separated Bikeway	Sidepath (North Side)
	Paint Branch	Old Columbia Pike	Separated Bikeway	Sidepath (North Side)

Fairland - Colesville

Bikeway	From	To	Facility Type	Bikeway Type
Briggs Chaney Rd	Old Columbia Pike	ICC Trail	Separated Bikeway	Sidepath (Both Sides)
	Intercounty Connector Trail	Prince George's County	Separated Bikeway	Sidepath (South Side)
Calverton Blvd	Gracefield Rd	Prince George's County	Separated Bikeway	Sidepath (South Side)
Cannon Rd	New Hampshire Ave	Broadmore Rd	Separated Bikeway	Sidepath (South Side)
Castle Blvd	Castle Ridge Cir	Briggs Chaney Rd	Separated Bikeway	Separated Bike Lanes
Columbia Pike	Sandy Spring Rd	Blackburn Rd	Separated Bikeway	Sidepath (East Side)
Columbia Pike	Tech Rd	Rachel Carson Greenway	Separated Bikeway	Sidepath (West Side)
Fairland Rd	Randolph Rd	Briggs Chaney Rd	Separated Bikeway	Sidepath (South Side)
Galway Dr	Fairland Rd	Kilkerny St	Separated Bikeway	Sidepath (West Side)
Gateshead Manor Way	Briggs Chaney Rd	Aston Manor Dr	Striped Bikeway	Buffered Bike Lanes
Greencastle Rd	Old Columbia Pike	Greencastle Ridge Ter	Separated Bikeway and Striped Bikeway	Sidepath (West Side) and Conventional Bike Lanes
	Greencastle Ridge Ter	Prince George's County	Separated Bikeway	Sidepath (West Side)
Jackson Rd	New Hampshire Ave	Paint Branch Trail	Separated Bikeway	Sidepath (North Side)
Matthew Henson Trail	Aspen Hill Policy Area	Notley Rd	Trail	Off-Street Trail
McKnew Rd	Sandy Spring Rd	Saddle Creek Dr	Separated Bikeway	Sidepath (East Side)
Musgrove Rd	Old Columbia Pike	Fairland Rd	Separated Bikeway	Sidepath (South Side)
New Hampshire Ave	Intercounty Connector Trail	Wolf Dr	Separated Bikeway	Sidepath (Both Sides)
New Hampshire Ave	Wolf Dr	Columbia Pike	Separated Bikeway	Sidepath (West Side)
Notley Rd	Intercounty Connector Trail	New Hampshire Ave	Separated Bikeway	Sidepath (East Side)
Old Columbia Pike	Tolson Pl	Tech Rd	Separated Bikeway and Striped Bikeway	Sidepath (West Side) and Conventional Bike Lanes
Old Columbia Pike	Tech Rd	Stewart La	Separated Bikeway	Sidepath (East Side)
Robey Rd	Greencastle Rd	Briggs Chaney Rd	Separated Bikeway	Sidepath (West Side)
Saddle Creek Dr	McKnew Rd	Bentley Park Dr	Separated Bikeway	Sidepath (East Side)
Sandy Spring Rd	Old Columbia Pike	Columbia Pike Ramp	Separated Bikeway	Sidepath (South Side) and Separated Bike Lanes (North Side)
	Columbia Pike Ramp	Prince George's County	Separated Bikeway and Bikeable Shoulders	Sidepath (South Side) and Bikeable Shoulder
Serpentine Way	Fairland Rd	Randolph Rd	Separated Bikeway	Sidepath (West Side)
Sheffield Manor Dr	Aston Manor Dr	Shady Knoll Dr	Striped Bikeway	Buffered Bike Lanes
Spencerville Rd	Oursler Rd	School Access Rd	Separated Bikeway and Bikeable Shoulders	Sidepath (North Side) and Bikeable Shoulder
Tech Rd	Old Columbia Pike	Columbia Pike	Separated Bikeway	Separated Bike Lanes (One-Way, Both Sides)
Valley Brook Dr	Springbrook High School	New Hampshire Ave	Separated Bikeway	Sidepath (South Side)
Wexhall Dr	Greencastle Blvd	Ballinger Dr	Striped Bikeway	Buffered Bike Lanes
Wolf Dr	New Hampshire Ave	Kara La	Separated Bikeway	Sidepath (North Side)

Friendship Heights CBD

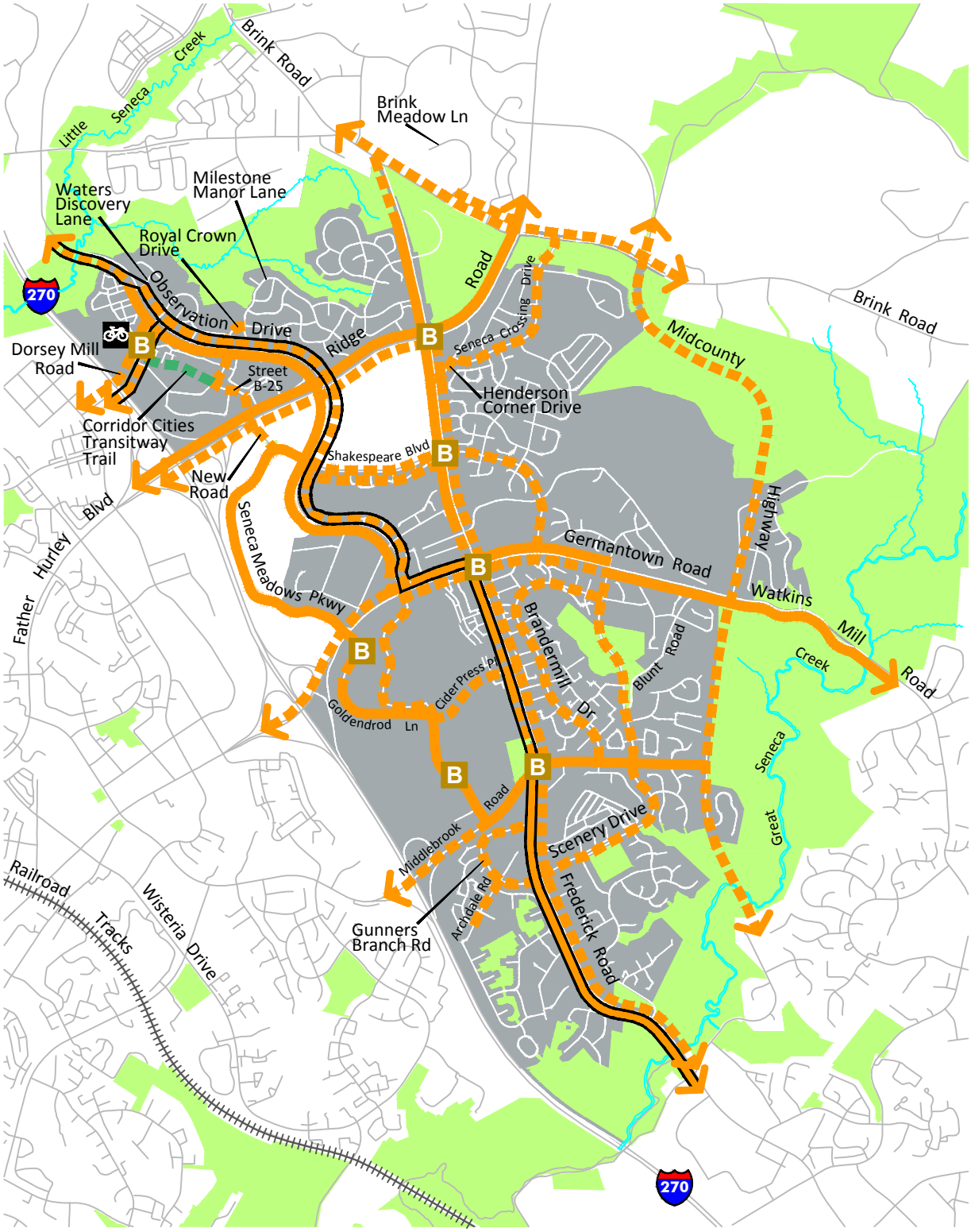


Note: White lines represent non-master planned bikeways

Friendship Heights CBD

Bikeway	From	To	Facility Type	Bikeway Type
MD 355 South Breezeway				
Wisconsin Ave	Oliver Street	District of Columbia	Separated Bikeway	Separated Bike Lanes (Two-Way, East Side)
Belmont Ave Trail	Park St	Grove St	Trail	Off-Street Trail
Friendship Blvd	Somerset Ter	N Park Ave	Striped Bikeway	Conventional Bike Lanes
	N Park Ave	District of Columbia	Separated Bikeway	Separated Bike Lanes (Two-Way, West Side)
Montgomery St Trail	Montgomery St	Belmont Ave Trail	Trail	Off-Street Trail
Neighborhood Connector	Montgomery St	Center St	Trail	Neighborhood Connector
S Park Ave / Montgomery St	Friendship Blvd	Montgomery St Trail	Separated Bikeway	Separated Bike Lanes (Two-Way, South Side)
Somerset Ter	Wisconsin Ave	Friendship Blvd	Striped Bikeway	Conventional Bike Lanes
Western Ave	Cortland Rd	Western Grove Urban Park	Separated Bikeway	Separated Bike Lanes (Two-Way, North Side)
Willard Ave	Willard Ave Trail	Wisconsin Ave	Separated Bikeway	Separated Bike Lanes (Two-Way, South Side)
Willard Ave Trail	Willard Ave	District of Columbia	Trail	Off-Street Trail
Wisconsin Ave	Oliver St	Somerset Ter	Separated Bikeway	Sidepath (West Side)
Wisconsin Cir	Wisconsin Ave	District of Columbia	Shared Road	Priority Shared Lane Markings

Germantown East



Policy Area
Parkland
Bus Rapid Transit Station (Proposed)
Breezeway Network

Existing Proposed

Trails
Separated Bikeways
Bicycle Parking Station

Note: White lines represent non-master planned bikeways

0 3000'

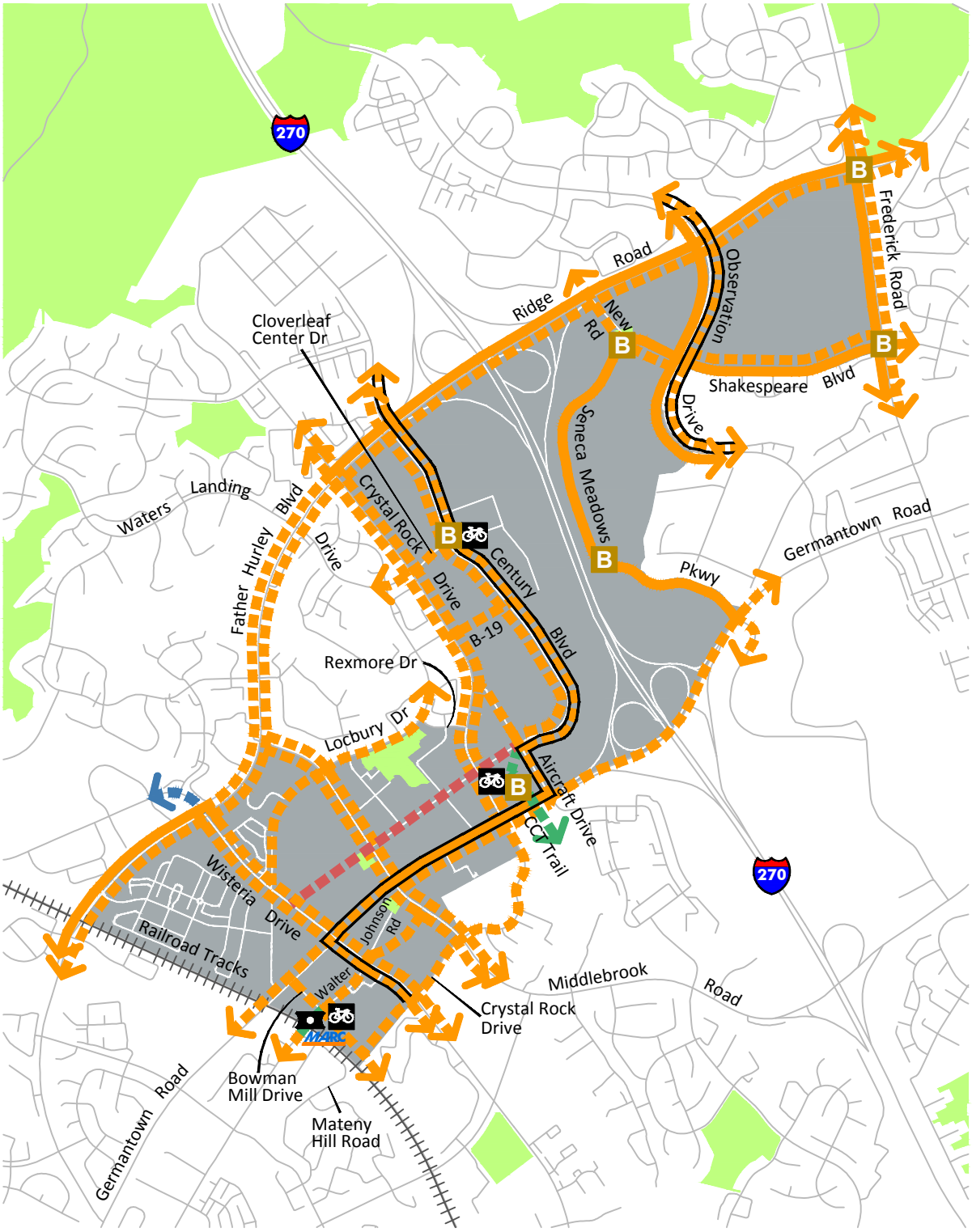
Germantown East

Bikeway	From	To	Facility Type	Bikeway Type
MD 355 North Breezeway				
Observation Dr	Little Seneca Creek	Ridge Rd	Separated Bikeway	Sidepath (East Side)
Germantown Rd	Observation Dr	Frederick Rd	Separated Bikeway	Sidepath (North Side)
Frederick Rd	Germantown Rd	Great Seneca Creek	Separated Bikeway	Sidepath (East Side)
Germantown - Life Sciences Center Breezeway				
Dorsey Mill Rd	I-270	Observation Dr	Separated Bikeway	Separated Bike Lanes (Two-Way, South Side)
Archdale Rd	Gunners Branch Rd	Fox Chapel Elementary Schoo	Separated Bikeway	Sidepath (East Side)
Brandermill Dr	Scenery Dr	Middlebrook Rd	Separated Bikeway	Sidepath (side TBD)
Brink Rd	Brink Meadow La	Ridge Rd	Separated Bikeway	Sidepath (Both Sides)
	Ridge Rd	MidCounty Hwy	Separated Bikeway	Sidepath (South Side)
Cider Press Pl	Observation Dr	Frederick Rd	Separated Bikeway	Sidepath (North Side)
Corridor Cities Transitway Trail	Dorsey Mill Rd	Milestone Center Dr	Trail	Off-Street Trail
Frederick Rd	Brink Rd	Ridge Rd	Separated Bikeway	Sidepath (West Side)
	Ridge Rd	Germantown Rd	Separated Bikeway	Sidepath (Both Sides)
Frederick Rd	Germantown Rd	Great Seneca Creek	Separated Bikeway	Sidepath (West Side)
Germantown Rd	Seneca Meadows Pkwy	Observation Dr	Separated Bikeway	Sidepath (North Side)
	Observation Dr	Scenery Dr	Separated Bikeway	Sidepath (Both Sides)
	Scenery Dr	Blunt Rd	Separated Bikeway	Sidepath (South Side)
Goldenrod La	Germantown Rd	Observation Dr	Separated Bikeway	Sidepath (East Side)
Gunners Branch Rd	Frederick Rd	Frederick Rd	Separated Bikeway	Sidepath (West Side)
Henderson Corner Rd	Seneca Crossing Rd	Frederick Rd	Separated Bikeway	Sidepath (East Side)
MidCounty Hwy	Brink Rd	Great Seneca Creek	Separated Bikeway	Sidepath (side TBD)
Middlebrook Rd	I-270	Observation Dr	Separated Bikeway	Sidepath (South Side)
	Observation Dr	Midcounty Hwy	Separated Bikeway	Sidepath (South Side)
Milestone Center Dr	Dorsey Mill Rd	Observation Dr	Separated Bikeway	Sidepath (North Side)
Observation Dr	Waters Discovery La	Ridge Rd	Separated Bikeway	Sidepath (West Side)
Observation Dr	Shakespeare Blvd	Germantown Rd	Separated Bikeway	Sidepath (Both Sides)
	Germantown Rd	Middlebrook Rd	Separated Bikeway	Sidepath (East Side)
Ridge Rd	I-270	Frederick Rd	Separated Bikeway	Sidepath (Both Sides)
	Frederick Rd	Brink Rd	Separated Bikeway	Sidepath (West Side)
Royal Crown Dr	Observation Dr	Milestone Manor La	Separated Bikeway	Sidepath (North Side)
Scenery Dr	Germantown Rd	Frederick Rd	Separated Bikeway	Sidepath (East Side)

Germantown East

Bikeway	From	To	Facility Type	Bikeway Type
Seneca Crossing Dr	Brink Rd	Henderson Corner Rd	Separated Bikeway	Sidepath (East Side)
Seneca Meadows Pkwy	Germantown Rd	Observation Dr	Separated Bikeway	Sidepath (East Side)
Shakespeare Blvd	Observation Dr	Frederick Rd	Separated Bikeway	Separated Bike Lanes (Two-Way, South Side)
	Frederick Rd	Germantown Rd	Separated Bikeway	Separated Bike Lanes (Two-Way, North Side) and Sidepath (South Side)
Street B-25 / Milestone Center Ct	Milestone Center Dr	Seneca Meadows Pkwy	Separated Bikeway	Separated Bike Lanes (One-Way, Boths Sides)
Watkins Mill Rd	Blunt Rd	Great Seneca Creek	Separated Bikeway	Sidepath (South Side)

Germantown Town Center



Policy Area
Parkland
B Bus Rapid Transit Station (Proposed)
MARC MARC Station
Breezeway Network

Existing Proposed

Trails
Separated Bikeways
Striped Bikeways
Shared Roads
Grade Separated Crossing
Bicycle Parking Station

Note: White lines represent non-master planned bikeways

0 2000'

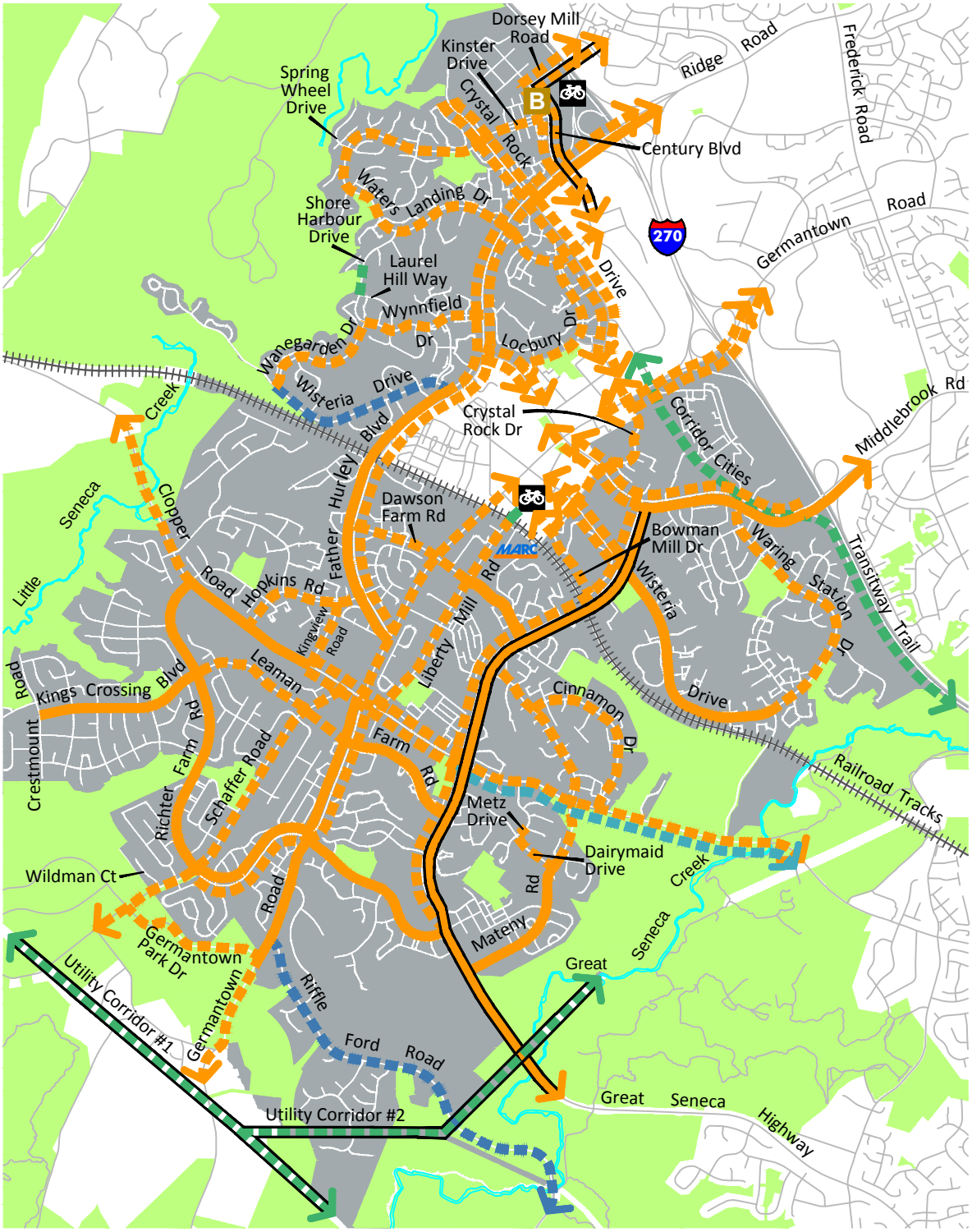
Germantown Town Center

Bikeway	From	To	Facility Type	Bikeway Type
MD 355 North Breezeway				
Observation Dr	Ridge Rd	Shakespeare Blvd	Separated Bikeway	Sidepath (East Side)
Germantown - Life Sciences Center Breezeway				
Century Blvd	Father Hurley Blvd	Aircraft Dr	Separated Bikeway	Separated Bike Lanes (Two-Way, East Side)
Aircraft Dr	Crystal Rock Dr	Germantown Rd	Separated Bikeway	Separated Bike Lanes (Two-Way, West Side)
Germantown Rd	Middlebrook Rd	Aircraft Dr	Separated Bikeway	Separated Bike Lanes (Two-Way, North Side)
Middlebrook Rd	Germantown Rd	Crystal Rock Dr	Separated Bikeway	Separated Bike Lanes (Two-Way, West Side)
Bowman Mill Dr	Germantown Rd	Crystal Rock Dr	Separated Bikeway	Sidepath (West Side)
Century Blvd	Father Hurley Blvd	Aircraft Dr	Separated Bikeway	Separated Bike Lanes (Two-Way, West Side)
	Aircraft Dr	Wisteria Dr	Shared Road	Priority Shared Lane Markings
Cloverleaf Center Dr	Crystal Rock Dr	Century Blvd	Separated Bikeway	Sidepath (South Side)
Corridor Cities Transitway Trail	Century Blvd	Germantown Rd	Trail	Off-Street Trail
Crystal Rock Dr	Father Hurley Blvd	Rexmore Dr	Separated Bikeway	Sidepath (West Side) and Separated Bike Lanes (Two-Way, East Side)
	Rexmore Dr	Germantown Rd	Separated Bikeway	Separated Bike Lanes (Two-Way, Both Sides)
Father Hurley Blvd	Railroad Tracks	I-270	Separated Bikeway	Sidepath (Both Sides)
Frederick Rd	Ridge Rd	Shakespeare Blvd	Separated Bikeway	Sidepath (Both Sides)
Germantown Rd	Railroad Tracks	Middlebrook Rd	Separated Bikeway	Sidepath (North Side)
	Middlebrook Rd	Aircraft Dr	Separated Bikeway	Sidepath (Both Sides)
	Aircraft Dr	Seneca Meadows Pkwy	Separated Bikeway	Sidepath (North Side)
Locbury Dr	Rexmore Dr	Middlebrook Rd	Separated Bikeway	Sidepath (Side TBD)
Locbury Dr	Middlebrook Rd	Wisteria Dr	Separated Bikeway	Separated Bike Lanes (One-Way, Both Sides)
MARC Station Bridge	Railroad Tracks	Walter Johnson Rd	Trail	Off-Street Trail
Middlebrook Rd	Father Hurley Blvd	Locbury Dr	Separated Bikeway	Sidepath (Both Sides)
	Locbury Dr	Crystal Rock Dr	Separated Bikeway	Separated Bike Lanes (Two-Way, East Side)
Observation Dr	Ridge Rd	Shakespeare Blvd	Separated Bikeway	Sidepath (West Side)
Street B-25	Ridge Rd	Seneca Meadows Pkwy	Separated Bikeway	Separated Bike Lanes (One-Way, Both Sides)
Ridge Rd	I-270	Frederick Rd	Separated Bikeway	Sidepath (Both Sides)
Seneca Meadows Pkwy	Observation Dr	New Rd	Separated Bikeway	Sidepath (North Side)
	New Rd	Germantown Rd	Separated Bikeway	Sidepath (Both Sides)
Shakespeare Blvd	Observation Dr	Frederick Rd	Separated Bikeway	Separated Bike Lanes (Two-Way, North Side) and Sidepath (South Side)
Street B-19	Crystal Rock Dr	Century Blvd	Separated Bikeway	Separated Bike Lanes (One-Way, Both Sides)
Walter Johnson Rd	Bowman Mill Dr	Middlebrook Rd	Separated Bikeway	Sidepath (North Side)

Germantown Town Center

Bikeway	From	To	Facility Type	Bikeway Type
Wisteria Dr	Father Hurley Blvd	Crystal Rock Dr	Separated Bikeway	Sidepath (West Side) and Separated Bike Lanes (Two-Way, East Side)

Germantown West



Policy Area
Parkland
B Bus Rapid Transit Station (Proposed)
MARC MARC Station
Breezeway Network

Existing	Proposed
	Trails
	Separated Bikeways
	Striped Bikeways
	Bikeable Shoulders
	Bicycle Parking Station

Note: White lines represent non-master planned bikeways

0 3400'

Germantown West

Bikeway	From	To	Facility Type	Bikeway Type
Germantown - Life Sciences Center Breezeway				
Dorsey Mill Rd	Century Blvd	I-270	Separated Bikeway	Separated Bike Lanes (Two-Way, South Side)
Century Blvd	Dorsey Mill Rd	Father Hurley Blvd	Separated Bikeway	Separated Bike Lanes (East Side)
See Germantown Town Center Policy Area				
Middlebrook Rd	Crystal Rock Dr	Great Seneca Hwy	Separated Bikeway	Sidepath (East Side)
Great Seneca Hwy	Middlebrook Rd	Great Seneca Creek	Separated Bikeway	Sidepath (East Side)
Germantown - Grosvenor Breezeway				
Utility Corridor #1	Schaeffer Rd	Great Seneca Creek	Trail	Off-Street Trail
Germantown - Burtonsville Breezeway				
Utility Corridor #2	Rural West Policy Area	Great Seneca Creek	Trail	Off-Street Trail
Bowman Mill Dr Ext	Crystal Rock Dr Ext	Great Seneca Hwy	Separated Bikeway	Sidepath (West Side)
Century Blvd	Dorsey Mill Rd	Father Hurley Blvd	Separated Bikeway	Separated Bike Lanes (Two-Way, Both Sides)
Cinnamon Dr	Mateny Rd	Clopper Rd	Separated Bikeway	Sidepath (East Side)
Clopper Rd	Little Seneca Creek	Kingsview Rd	Separated Bikeway	Sidepath (East Side)
	Kingsview Rd	Great Seneca Hwy	Separated Bikeway	Sidepath (Both Sides)
	Great Seneca Hwy	Great Seneca Creek	Separated Bikeway and Bikeable Shoulders	Sidepath (West Side) and Bikeable Shoulders
Corridor Cities Transitway Trail	Germantown Rd	Great Seneca Creek	Trail	Off-Street Trail
Crystal Rock Dr	Dorsey Mill Rd	Father Hurley Blvd	Separated Bikeway	Sidepath (Both Sides)
	Father Hurley Blvd	Rexmore Dr	Separated Bikeway	Sidepath (West Side) and Separated Bike Lanes (Two-Way, East Side)
Crystal Rock Dr	Germantown Rd	Bowman Mill Dr Ext	Separated Bikeway	Sidepath (South Side)
Dairymaid Dr	Mateny Rd	Metz Dr	Separated Bikeway	Sidepath (West Side)
Dawson Farm Rd	Father Hurley Blvd	Great Seneca Hwy	Separated Bikeway	Sidepath (South Side)
Father Hurley Blvd	Germantown Rd	I-270	Separated Bikeway	Sidepath (Both Sides)
Germantown Park Dr	Schaeffer Rd	Germantown Rd	Separated Bikeway	Sidepath (West Side)
Germantown Rd	Rural West Policy Area	Richter Farm Rd	Separated Bikeway	Sidepath (North Side)
	Richter Farm Rd	Clopper Rd	Separated Bikeway	Sidepath (Both Sides)
	Clopper Rd	Railroad Tracks	Separated Bikeway	Sidepath (North Side)
Germantown Rd	Crystal Rock Rd	Aircraft Dr	Separated Bikeway	Sidepath (Both Sides)
	Aircraft Dr	I-270	Separated Bikeway	Sidepath (North Side)
Great Seneca Hwy	Middlebrook Rd	Richter Farm Rd	Separated Bikeway	Sidepath (West Side)
Hopkins Rd	Clopper Rd	Father Hurley Blvd	Separated Bikeway	Sidepath (North Side)
Kings Crossing Blvd	Crestmount Rd	Richter Farm Rd	Separated Bikeway	Sidepath (North Side)

Germantown West

Bikeway	From	To	Facility Type	Bikeway Type
Kingsview Rd	Hopkins Rd	Clopper Rd	Separated Bikeway	Sidepath (East Side)
Kinster Dr	Crystal Rock Dr	Century Blvd	Separated Bikeway	Sidepath (North Side)
Leaman Farm Rd	Richter Farm Rd	Great Seneca Hwy	Separated Bikeway	Sidepath (North Side)
Liberty Mill Rd	Clopper Rd	Dawson Farm Rd	Separated Bikeway	Sidepath (Side TBD)
	Dawson Farm Rd	Railroad Tracks	Separated Bikeway	Sidepath (North Side)
Locbury Dr	Waters Landing Dr	Middlebrook Rd	Separated Bikeway	Sidepath (Side TBD)
MARC Station Bridge	Mateny Hill Rd	Railroad Tracks	Trail	Off-Street Trail
Mateny Rd	Great Seneca Hwy	Great Seneca Hwy	Separated Bikeway	Sidepath (West Side)
Metz Dr	Open Hearth Way	Dairymaid Dr	Separated Bikeway	Sidepath (Side TBD)
Middlebrook Rd	Father Hurley Blvd	Locbury Dr	Separated Bikeway	Sidepath (Both Sides)
Middlebrook Rd	Crystal Rock Dr	Corridor Cities Transitway Tra	Separated Bikeway	Sidepath (Both Sides)
	Corridor Cities Transitway Tra	I-270	Separated Bikeway	Sidepath (South Side)
Richter Farm Rd	Clopper Rd	Schaeffer Rd	Separated Bikeway	Sidepath (East Side)
	Schaeffer Rd	Germantown Rd	Separated Bikeway	Sidepath (Both Sides)
	Germantown Rd	Great Seneca Hwy	Separated Bikeway	Sidepath (North Side)
Riffle Ford Rd	Germantown Rd	Great Seneca Creek	Striped Bikeway	Buffered Bike Lanes
Schaeffer Rd	Burdette La	Clopper Rd	Separated Bikeway	Sidepath (North Side)
Wanegarden Dr	Wisteria Dr	Wynnfield Dr	Separated Bikeway	Sidepath (Side TBD)
Waring Station Rd	Wisteria Dr	Middlebrook Rd	Separated Bikeway	Sidepath (West Side)
Waters Landing Dr	Crystal Rock Dr	Crystal Rock Dr	Separated Bikeway	Sidepath (Inner Side)
Wisteria Dr	Wanegarden Dr	Father Hurley Blvd	Striped Bikeway	Buffered Bike Lanes
Wisteria Dr	Crystal Rock Dr	Great Seneca Hwy	Separated Bikeway	Sidepath (Both Sides)
	Great Seneca Hwy	Waring Station Rd	Separated Bikeway	Sidepath (East Side)
Wynnfield Dr	Shore Harbour Dr	Laurel Hill Way	Trail	Off-Street Trail
Wynnfield Dr	Wanegarden Dr	Father Hurley Blvd	Separated Bikeway	Sidepath (Side TBD)

Glenmont

Policy Area
Parkland
M Metro Rail Station
B Bus Rapid Transit Station (Proposed)
Breezeway Network

Existing	Proposed
	Trails
	Separated Bikeways
	Shared Roads
	Bicycle Parking Station

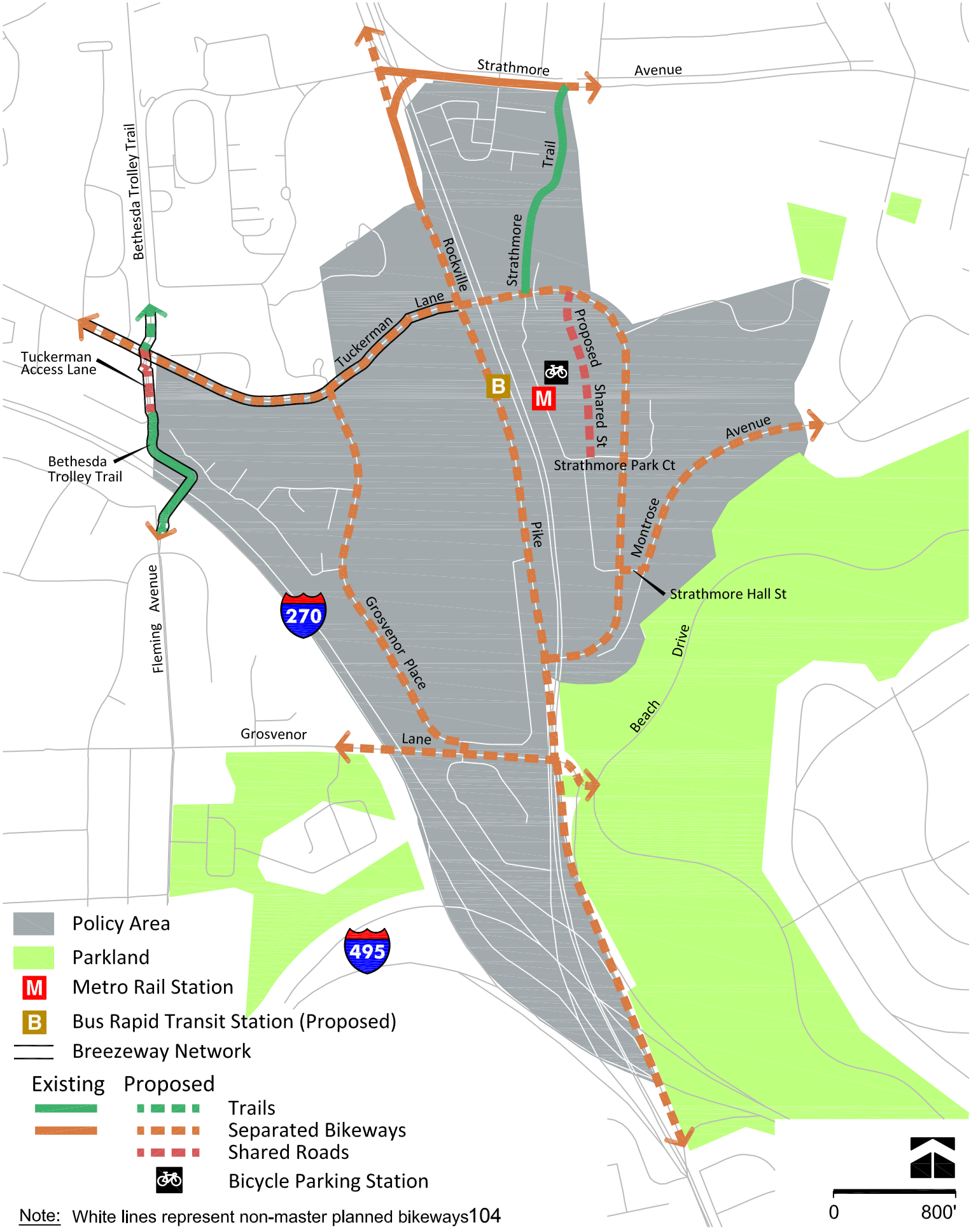
Note: White lines represent non-master planned bikeways

0 900'

Glenmont

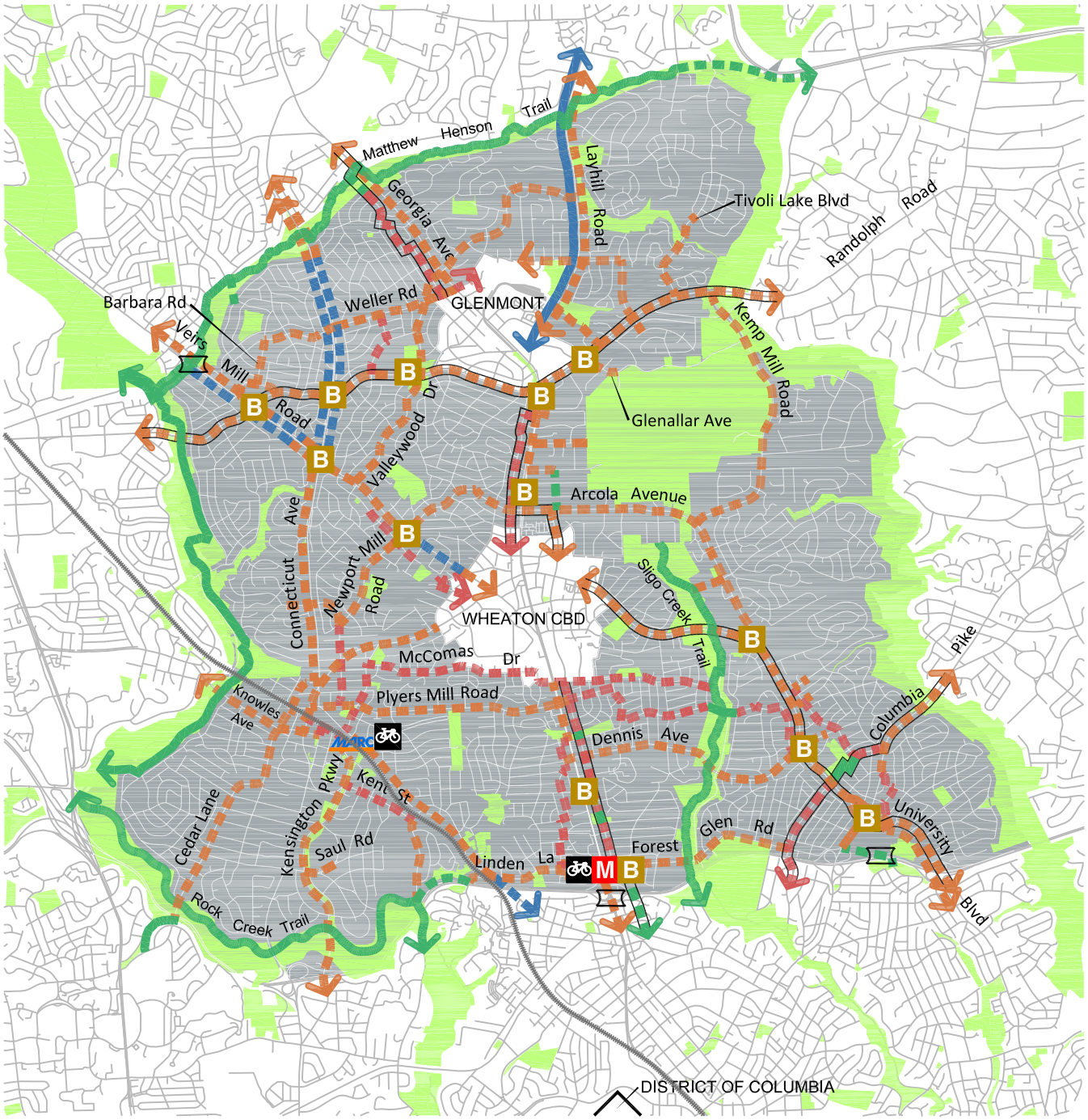
Bikeway	From	To	Facility Type	Bikeway Type
Georgia Ave North Breezeway				
Flack St	Weller Rd	Flack Connector	Shared Road	Neighborhood Greenway
Flack Connector	Flack St	Glenallan Ave	Trail	Off-Street Trail
Flack St	Trail	Judson Rd	Shared Road	Neighborhood Greenway
Judson Rd	Flack St	Georgia Ave	Shared Road	Neighborhood Greenway
Georgia Ave South Breezeway				
Georgia Ave	Judson Rd	Randolph Rd	Separated Bikeway	Sidepath (West Side)
Randolph Rd Breezeway				
Randolph Rd	Denley Rd	Glenallan Ave	Separated Bikeway	Sidepath (North Side)
Briggs Rd	Lutes Dr	Layhill Rd	Separated Bikeway	Sidepath (South Side)
Denley Rd	Randolph Rd	Gould Rd	Shared Road	Neighborhood Greenway
Gould Rd	Denley Rd	Denley Rd	Shared Road	Neighborhood Greenway
Denley Rd	Gould Rd	Georgia Ave	Shared Road	Neighborhood Greenway
Georgia Ave	Weller Rd	Denley Rd	Separated Bikeway	Sidepath (East Side)
	Denley Rd	Judson Rd	Separated Bikeway	Sidepath (Both Sides)
	Judson Rd	Randolph Rd	Separated Bikeway	Sidepath (East Side)
Glenallan Ave	Georgia Ave	Randolph Rd	Separated Bikeway	Sidepath (North Side) and Separated Bike Lanes (Two-Way, South Side)
Jingle Connector	Jingle La	Briggs Rd	Trail	Off-Street Trail
Jingle La	Weller Rd	Jingle Connector	Shared Road	Neighborhood Greenway
Layhill Rd	Briggs Rd	Glenallan Ave	Separated Bikeway and Striped Bikeway	Sidepath (East Side) and Conventional Bike Lanes
	Glenallan Ave	Georgia Ave	Separated Bikeway	Separated Bike Lanes (Two-Way, Both Sides)
Neighborhood Connector	Briggs Ct	Lutes Dr	Trail	Neighborhood Connector
Street B-1	Layhill Rd	Randolph Rd	Separated Bikeway	Separated Bike Lanes (One-Way, Both Sides)
Street B-2	Georgia Ave	Randolph Rd	Separated Bikeway	Separated Bike Lanes (One-Way, Both Sides)
Trail	Flack Connector	Flack St	Trail	Off-Street Trail
Weller Rd	Holdridge Rd	Georgia Ave	Separated Bikeway	Sidepath (North Side)
	Georgia Ave	Jingle La	Shared Road	Neighborhood Greenway

Grosvenor



Note: White lines represent non-master planned bikeways

Kensington/Wheaton



Policy Area
Parkland
County Line
Metrorail Station
MARC Station
Bus Rapid Transit Station (Proposed)
Breezeway Network

Existing	Proposed	
		Trails
		Separated Bikeways
		Striped Bikeways
		Shared Roads
		Grade Separated Crossing
		Bicycle Parking Station

Note: White lines represent non-master planned bikeways

0 5000'

Grosvenor

Bikeway	From	To	Facility Type	Bikeway Type
MD 355 South Breezeway				
Bethesda Trolley Trail	Tuckerman Access La	Fleming Ave	Trail	Off-Street Trail
Germantown - Grosvenor Breezeway				
Tuckerman La	Grosvenor Pl	Rockville Pike	Separated Bikeway	Sidepath (Side TBD)
Grosvenor La	I-270	Rockville Pike	Separated Bikeway	Sidepath (Side TBD)
Grosvenor Pl	Tuckerman La	Grosvenor La	Separated Bikeway	Sidepath (West Side)
Montrose Ave	Strathmore Hall St	North Bethesda Policy Area	Separated Bikeway	Sidepath (North Side)
Proposed Shared Street	Tuckerman La	Strathmore Park Ct	Shared Road	Shared Street
Rockville Pike	North Bethesda Policy Area	I-495	Separated Bikeway	Sidepath (East Side)
Strathmore Ave	Rockville Pike	Strathmore Trail	Separated Bikeway	Sidepath (South Side)
Strathmore Hall St	Tuckerman La	Montrose Ave	Separated Bikeway	Sidepath (North Side)
Strathmore Trail	Strathmore Ave	Tuckerman La	Trail	Off-Street Trail
Tuckerman Access La	Tuckerman La	Bethesda Trolley Trail	Shared Road	Priority Shared Lane Markings
Tuckerman La	Bethesda Trolley Trail	Rockville Pike	Separated Bikeway	Sidepath (Side TBD)
Tuckerman La	Rockville Pike	Rockville Pike	Separated Bikeway	Separated Bike Lanes (One-Way, Both Sides)

Kensington-Wheaton

Bikeway	From	To	Facility Type	Bikeway Type
Georgia Ave South Breezeway				
Trail	Matthew Henson Trail	Holdridge Rd	Trail	Off-Street Trail
Holdridge Rd	Olympic St	May St	Shared Road	Neighborhood Greenway
May St	Holdridge Rd	Estelle Rd	Shared Road	Neighborhood Greenway
Estelle Rd	May St	Kayson St	Shared Road	Neighborhood Greenway
Kayson St	Estelle Rd	Flack St	Shared Road	Neighborhood Greenway
Flack St	Kayson St	Weller Rd	Shared Road	Neighborhood Greenway
See Glenmont Policy Area				
Georgia Ave	Randolph Rd	Mason St	Separated Bikeway	Sidepath (West Side)
Mason St	Georgia Ave	Grandview Ave	Shared Road	Neighborhood Greenway
Grandview Ave	Mason St	Arcola Ave	Shared Road	Neighborhood Greenway
Arcola Ave	Grandview Ave	Amherst Ave	Separated Bikeway	Sidepath (Side TBD)
Amherst Ave	Arcola Ave	Elkin St	Separated Bikeway	Separated Bike Lanes (One-Way, Both Sides)
See Wheaton CBD Policy Area				
Amherst Ave	Windham La	Dennis Dr	Shared Road	Neighborhood Greenway
Woodland Dr Ext	Dennis Dr	Medical Park Dr	Shared Road	Neighborhood Greenway
Woodland Dr	Medical Park Dr	Forest Glen Rd	Shared Road	Neighborhood Greenway
I-495 Bridge (East Side)	Forest Glen Rd	Woodland Rd	Trail	Off-Street Trail
US 29 Corridor Breezeway				
Colesville Rd	Northwest Branch	Lorain Ave	Separated Bikeway	Sidepath (East Side)
Lorain Ave	Colesville Rd	Woodmoor Cir	Shared Road	Neighborhood Greenway
Woodmoor Cir	Lorain Ave	Woodmoor Dr	Shared Road	Neighborhood Greenway
Woodmoor Dr	Woodmoor Cir	Pierce Dr	Shared Road	Neighborhood Greenway
Pierce Dr	Woodmoor Dr	Lexington Dr	Shared Road	Neighborhood Greenway
Lexington Dr	Pierce Dr	University Blvd	Separated Bikeway	Sidepath (West Side)
Colesville Rd	University Blvd	I-495 Bridge	Separated Bikeway	Sidepath (East Side)
I-495 Bridge	Colesville Rd	Marshall Ave	Trail	Off-Street Trail
University Blvd Breezeway				
University Blvd	Reedie Dr	I-495	Separated Bikeway	Sidepath (East Side)
Veirs Mill Rd Breezeway				
Veirs Mill Rd	Matthew Henson Trail	Gridley Rd	Separated Bikeway	Sidepath (South Side)
Veirs Mill Rd	Gridley Rd	Randolph Rd	Separated Bikeway	Separated Bike Lanes (Two-Way, South Side)
Veirs Mill Rd	Randolph Rd	College View Dr	Separated Bikeway	Sidepath (South Side)

Kensington-Wheaton

Bikeway	From	To	Facility Type	Bikeway Type
Randolph Rd Breezeway				
Randolph Rd	Glenallan Ave	Kemp Mill Rd	Separated Bikeway	Sidepath (North Side)
Silver Spring - Glenmont West Neighborhood Greenway				
Georgia Ave	Windham La	Evans Dr	Separated Bikeway	Sidepath (West Side)
Evans Dr	Georgia Ave	Douglas Ave	Shared Road	Neighborhood Greenway
Douglas Ave	Evans Dr	Darrow St	Shared Road	Neighborhood Greenway
McKenney Ave	Darrow St	Hildarose Dr	Shared Road	Neighborhood Greenway
Hildarose Dr	McKenney Ave	Greeley Ave	Shared Road	Neighborhood Greenway
Greeley Ave	Hildarose Dr	Arthur Ave	Shared Road	Neighborhood Greenway
Clark Pl	Arthur Ave	Darcy Forest Dr	Shared Road	Neighborhood Greenway
Darcy Forest Dr	Clark Pl	Forest Glen Dr	Shared Road	Neighborhood Greenway
Forest Glen Rd	Darcy Forest Dr	Georgia Ave	Separated Bikeway	Sidepath (North Side)
I-495 Bridge (West Side)	Forest Glen Rd	I-495	Separated Bikeway	Sidepath (West Side)
Veirs Mill Rd (North Side)				
Veirs Mill Rd	Matthew Henson Trail	Havard St	Separated Bikeway	Sidepath (North Side)
Veirs Mill Rd	Havard St	Bushey Rd	Separated Bikeway	Separated Bike Lanes (Two-Way, North Side)
Veirs Mill Rd	Bushey Rd	Galt Ave	Separated Bikeway	Sidepath (North Side)
Veirs Mill Rd Neighborhood Greenway				
Glorus Pl	Huggins Dr	College View Dr	Shared Road	Neighborhood Greenway
College View Dr	Glorus Pl	Norris Dr	Shared Road	Neighborhood Greenway
Trail	Norris Dr	Pleasant View LP Trail	Trail	Neighborhood Connector
College View Dr	Pleasant View LP Trail	Veirs Mill Rd	Shared Road	Neighborhood Greenway
Veirs Mill Rd	College View Dr	Galt Ave	Separated Bikeway	Sidepath (North Side)
Connecticut Ave West Bikeway				
Connecticut Ave	Matthew Henson Trail	Littleton St	Separated Bikeway	Sidepath (West Side)
Connecticut Ave Access Rd	Littleton St	Brightview St	Shared Road	Contra-Flow Bike Lane
Connecticut Ave	Brightview St	Farragut Ave	Separated Bikeway	Sidepath (West Side)
Connecticut Ave	Farragut Ave	Knowles Ave	Separated Bikeway	Separated Bike Lanes (West Side)
Connecticut Ave East Bikeway				
Connecticut Ave	Matthew Henson Trail	Munsey St	Separated Bikeway	Sidepath (East Side)
Connecticut Ave Access Rd	Munsey St	400 Ft North Of Veirs Mill Rd	Shared Road	Contra-Flow Bike Lane
Connecticut Ave	400 Ft North Of Veirs Mill Rd	Veirs Mill Rd	Separated Bikeway	Sidepath (East Side)
Colesville Rd West Neighborhood Greenway				

Kensington-Wheaton

Bikeway	From	To	Facility Type	Bikeway Type
Southwood Ave	Colesville Rd	North Four Corners Local Park	Shared Road	Neighborhood Greenway
Park Trail	Southwood Ave	University Blvd	Trail	Off-Street Trail
Brunett Ave	University Blvd	I-495	Shared Road	Neighborhood Greenway
Kensington - Four Corners Neighborhood Greenway				
Plyers Mill Rd	Summit Ave	Lexington St Ext	Separated Bikeway	Separated Bike Lanes (Two-Way, South Side)
Plyers Mill Rd	Lexington Ave Ext	Georgia Ave	Separated Bikeway	Sidepath (South Side)
Plyers Mill Rd	Georgia Ave	Glenhaven Dr	Shared Road	Neighborhood Greenway
Glenhaven Dr	Plyers Mill Rd	Gridley La	Shared Road	Neighborhood Greenway
Gridley La	Glenhaven Dr	Malone St	Shared Road	Neighborhood Greenway
Malone St	Gridley La	Sligo Creek Trail Access	Shared Road	Neighborhood Greenway
Sligo Creek Trail Access	Malone St	Tenbrook Dr	Trail	Stream Valley Park Trail
Whitehall St	Tenbrook Dr	Orange Dr	Shared Road	Neighborhood Greenway
Orange Dr	Whitehall St	Gilmoure Dr	Shared Road	Neighborhood Greenway
Gilmoure Dr	Orange Dr	Dennis Ave	Shared Road	Neighborhood Greenway
Kensington - Chevy Chase Lake Neighborhood Greenway				
Howard Ave	Summit Ave	Connecticut Ave	Separated Bikeway	Separated Bike Lanes (One-Way, Both Sides)
Howard Ave	Connecticut Ave	Proposed Railroad Crossing	Shared Road	Priority Shared Lane Markings
Howard Ave	Proposed Railroad Crossing	Montgomery Ave	Separated Bikeway	Sidepath (North Side)
Montgomery Ave	Howard Ave	Kensington Pkwy	Separated Bikeway	Sidepath (East Side)
Kensington Pkwy	Montgomery Ave	I-495	Separated Bikeway	Sidepath (East Side)
Rock Creek Trail - Sligo Creek Trail Bikeway				
Trail	Stoneybrook Dr	Linden La	Trail	Off-Street Trail
Linden La	Trail	Seminary Rd	Separated Bikeway	Sidepath (North Side)
Forest Glen Rd	Seminary Rd	Darcy Forest Dr	Separated Bikeway	Sidepath (North Side)
Forest Glen Rd	Darcy Forest Dr	Georgia Ave	Separated Bikeway	Sidepath (Both Sides)
Forest Glen Rd	Georgia Ave	Brunett Ave	Separated Bikeway	Sidepath (South Side)
Arcola Ave	Parker Ave	University Blvd	Separated Bikeway	Sidepath (Side TBD)
Armory Ave	Howard Ave	Knowles Ave	Shared Road	Priority Shared Lane Markings
Barbara Rd	Havard St	Randolph Rd	Separated Bikeway	Sidepath (South Side)
Briggs Rd	Layhill Rd	Middlevale La	Separated Bikeway	Sidepath (South Side)
Caddington Ave	University Blvd	Forest Knolls ES	Separated Bikeway	Sidepath (South Side)
Capitol View Ave	Metropolitan Ave	Forest Glen Rd	Separated Bikeway	Sidepath (West Side)

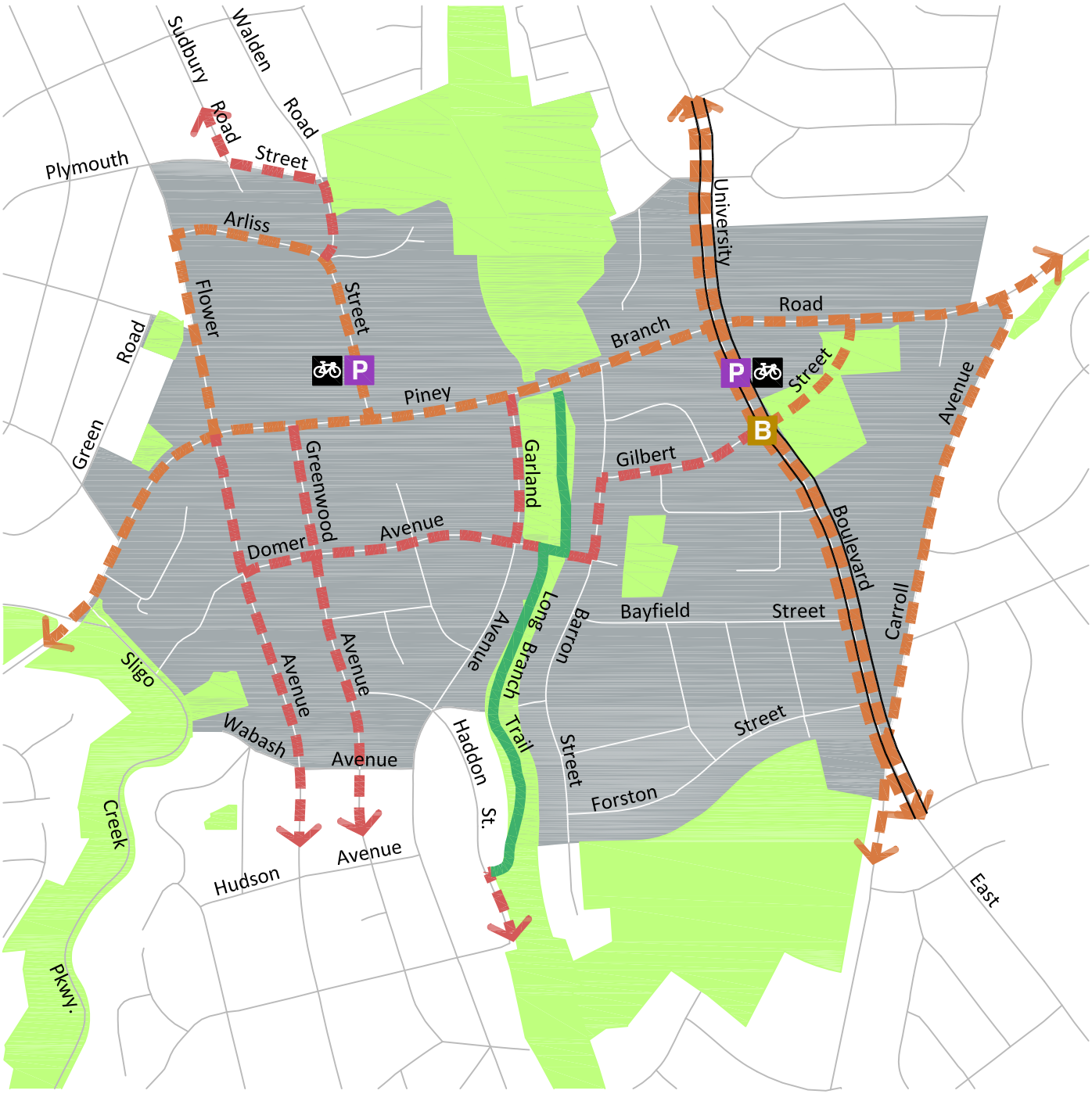
Kensington-Wheaton

Bikeway	From	To	Facility Type	Bikeway Type
Cedar La	Summit Ave	Elmhirst Pkwy Trail	Separated Bikeway	Sidepath (North Side)
Colie Dr	Havard St	Randolph Rd	Separated Bikeway	Sidepath (South Side)
Connecticut Ave	Farragut Ave	Knowles Ave	Separated Bikeway	Separated Bike Lanes (Two-Way, East Side)
Dalewood Dr	Dean Rd	Randolph Rd	Shared Road	Neighborhood Greenway
Dean Rd	Weller Rd	Dalewood Dr	Shared Road	Neighborhood Greenway
Denfield Ave	Dewey Rd	Newport Mill Rd	Separated Bikeway	Sidepath (North Side)
Dennis Ave	Douglas Ave	Edgewood Ave	Separated Bikeway	Sidepath (North Side)
Edgewood Ave	Eisner St	Southwood Ave	Shared Road	Neighborhood Greenway
Eisner St	University Blvd	Edgewood Ave	Shared Road	Neighborhood Greenway
Evans Parkway NP Trail	Amherst Ave	Evans Dr	Trail	Off-Street Trail
Farragut Ave	Connecticut Ave	Summit Ave Ext	Separated Bikeway	Separated Bike Lanes (Two-Way, North Side)
Garden Gate Rd	Randolph Rd	Billman La	Separated Bikeway	Sidepath (East Side)
Georgia Ave	Matthew Henson Trail	Weller Rd	Separated Bikeway	Sidepath (East Side)
Georgia Ave	Randolph Rd	Arcola Ave	Separated Bikeway	Sidepath (East Side)
Glenallen Ave	Randolph Rd	Wallace Ave	Separated Bikeway	Sidepath (North Side)
Grandview Ave	Arcola Ave	Dawson Ave	Shared Road	Neighborhood Greenway
Hathaway Dr	Layhill Rd	Valleywood Dr	Separated Bikeway	Sidepath (Side TBD)
Kemp Mill Rd	Randolph Rd	Arcola Ave	Separated Bikeway	Sidepath (West Side)
Kent St	Kensington Pkwy	Stoneybrook Dr	Shared Road	Neighborhood Greenway
Knowles Ave	Rock Creek Trail	Connecticut Ave	Separated Bikeway	Sidepath (West Side)
	Connecticut Ave	Armory Ave	Separated Bikeway	Separated Bike Lanes (Two-Way, West Side)
Lamberton Rd	Sligo Creek Trail Access	Arcola Ave	Separated Bikeway	Sidepath (Side TBD)
Layhill Rd	Matthew Henson Trail	Briggs Rd	Separated Bikeway and Striped Bikeway	Sidepath (East Side) and Conventional Bike Lanes
Lexington St	University Blvd	Plyers Mill Rd	Shared Road	Priority Shared Lane Markings
Matthew Henson Trail	Rock Creek Trail	Alderton Rd	Trail	Stream Valley Park Trail
	Alderton Rd	Fairland / Colesville Policy Area	Trail	Stream Valley Park Trail
Matthew Henson Trail Connector	Matthew Henson Trail	Littleton St	Trail	Stream Valley Park Trail
McComas Ave	St Paul St	St Margarets Way	Shared Road	Neighborhood Greenway
Metropolitan Ave	St Paul St	Capitol View Ave	Separated Bikeway	Sidepath (West Side)
Middlevale La	Briggs Rd	Randolph Rd	Separated Bikeway	Sidepath (East Side)
Newport Mill Rd	King Tree St	Denfeld Ave	Separated Bikeway	Sidepath (East Side)
	Denfeld Ave	University Blvd	Shared Road	Priority Shared Lane Markings
Parker Ave	Newport Mill Rd	Arcola Ave	Separated Bikeway	Sidepath (Side TBD)

Kensington-Wheaton

Bikeway	From	To	Facility Type	Bikeway Type
Railroad Crossing	Metropolitan Ave	Montgomery Ave	Trail	Off-Street Trail
Randolph Rd	Rock Creek	Denley Rd	Separated Bikeway	Sidepath (North Side)
Rippling Brook Dr	Bel Pre Rd	Matthew Henson Trail	Trail	Off-Street Trail
Rock Creek Trail	Matthew Henson Trail	Stoneybrook Dr	Trail	Stream Valley Park Trail
Saddlebrook Connector	Layhill Rd	Randolph Rd	Separated Bikeway	Sidepath (TBD)
Saddlebrook Dr Ext	Saddlebrook Dr	Street P-27	Trail	Off-Street Trail
Saul Rd	Kensington Pkwy	B-CC Middle School #2	Separated Bikeway	Sidepath (North Side)
Seminary Rd	Forest Glen Rd	I-495	Striped Bikeway	Conventional Bike Lanes
Shorefield Rd	Georgia Ave	Wheaton Regional Park	Separated Bikeway	Sidepath (Side TBD)
Sligo Creek Trail	Orebaugh Ave	I-495	Trail	Stream Valley Park Trail
St Paul St	Metropolitan Ave	McComas Ave	Shared Road	Priority Shared Lane Markings
Stoneybrook Dr	Capitol View Ave	Beach Dr	Separated Bikeway	Sidepath (West Side)
Summit Ave Ext	Farragut Ave	Plyers Mill Rd	Separated Bikeway	Separated Bike Lanes (Two-Way, West Side)
Summit Ave	Plyers Mill Rd	Knowles Ave	Separated Bikeway	Separated Bike Lanes (Two-Way, West Side)
	Knowles Ave	Cedar La	Separated Bikeway	Sidepath (North Side)
Tivoli Lake Blvd	Red Spire Rd	Randolph Rd	Separated Bikeway	Sidepath (East Side)
University Blvd	Connecticut Ave	Decatur Ave	Separated Bikeway	Separated Bike Lanes (Two-Way, South Side)
	Decatur Ave	Drumm Ave	Separated Bikeway	Sidepath (South Side)
University Blvd	Lorain Ave	I-495	Separated Bikeway	Sidepath (West Side)
Upton Dr	Neighborhood Connector	Kensington Blvd	Shared Road	Neighborhood Greenway
Valleywood Dr	Dalewood Dr	Weisman Rd	Trail	Off-Street Trail
	Weisman Rd	Veirs Mill Rd	Separated Bikeway	Sidepath (Side TBD)
Weller Rd	Barbara Rd	Connecticut Ave	Separated Bikeway	Sidepath (Side TBD)
	Connecticut Ave	Holdridge Rd	Separated Bikeway	Sidepath (North Side)
Windham La	Douglas Ave	Sligo Creek Trail	Shared Road	Neighborhood Greenway

Long Branch



Note: White lines represent non-master planned bikeways

Long Branch

Bikeway	From	To	Facility Type	Bikeway Type
University Blvd Breezeway				
University Blvd	Langley Dr	Carroll Ave	Separated Bikeway	Separated Bike Lanes (Two-Way, East Side)
Arliss St	Flower Ave	Piney Branch Rd	Separated Bikeway	Separated Bike Lanes (One-Way, Both Sides)
Barron St	Domer Ave	Gilbert St	Shared Road	Neighborhood Greenway
Carroll Ave	Piney Branch Rd	University Blvd	Separated Bikeway	Separated Bike Lanes (One-Way, Both Sides)
Domer Ave	Flower Ave	Barron St	Shared Road	Neighborhood Greenway
Flower Ave	Arliss St	Piney Branch Rd	Separated Bikeway	Separated Bike Lanes (One-Way, Both Sides)
	Piney Branch Rd	Wabash Ave	Shared Road	Priority Shared Lane Markings
Garland Ave	Piney Branch Rd	Domer Ave	Shared Road	Neighborhood Greenway
Gilbert St	Barron St	University Blvd	Shared Road	Neighborhood Greenway
	University Blvd	Piney Branch Rd	Separated Bikeway	Separated Bike Lanes (One-Way, Both Sides)
Greenwood Ave	Piney Branch Rd	Wabash Ave	Shared Road	Neighborhood Greenway
Long Branch Trail	Piney Branch Rd	Haddon Dr	Trail	Stream Valley Park Trails
Piney Branch Rd	Sligo Creek Pkwy	Flower Ave	Separated Bikeway	Sidepath (South Side)
	Flower Ave	Carroll Ave	Separated Bikeway	Separated Bike Lanes (Two-Way, North Side)
Plymouth St	Sudbury Rd	Walden St	Shared Road	Neighborhood Greenway
University Blvd	Langley Dr	Carroll Ave	Separated Bikeway	Separated Bike Lanes (Two-Way, West Side)
Walden Rd	Plymouth St	Arliss St	Shared Road	Neighborhood Greenway

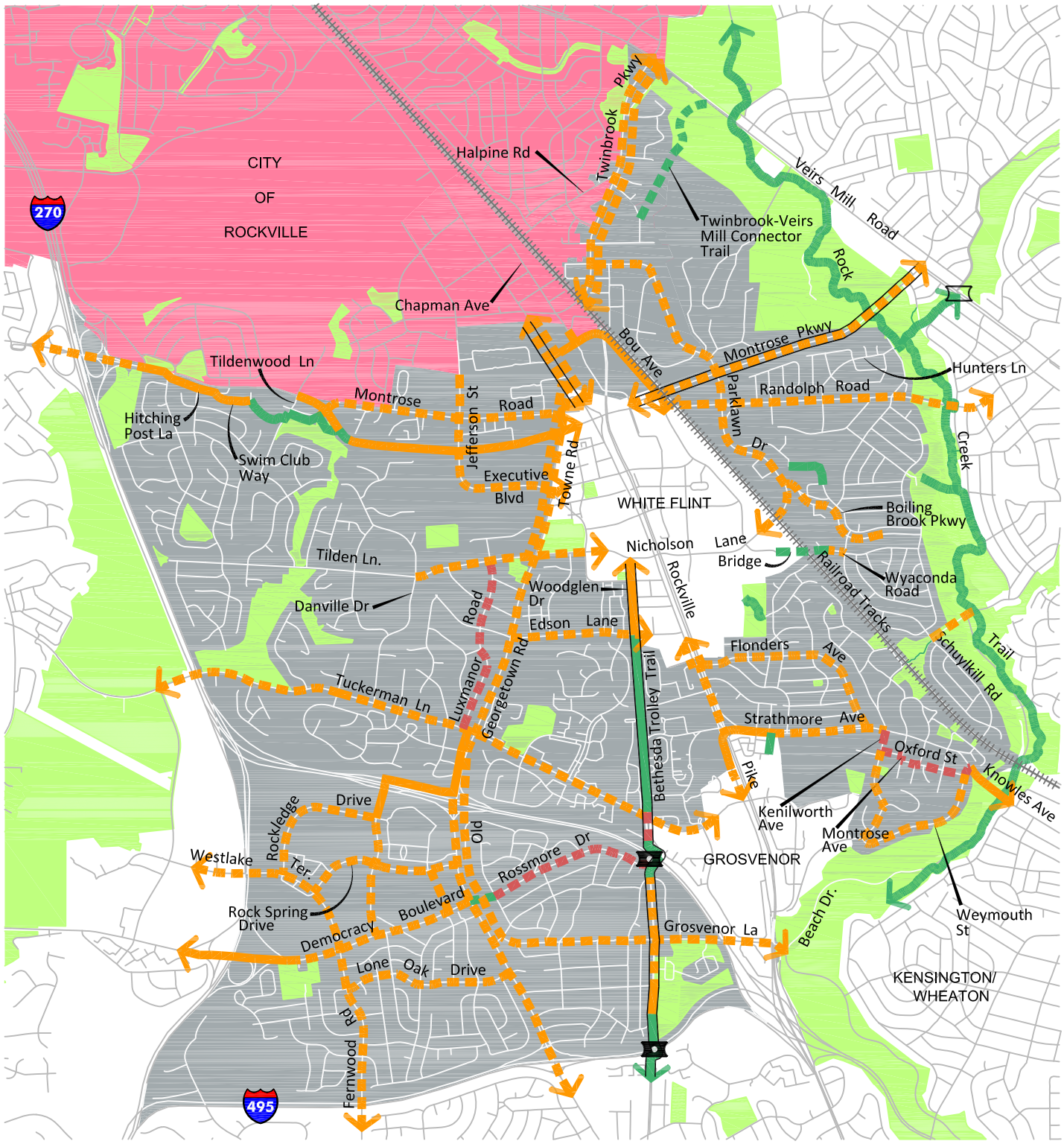
Montgomery Village / Airpark

Note: White lines represent non-master planned bikeways

Montgomery Village / Airpark Policy Area

Bikeway	From	To	Facility Type	Bikeway Type
MD 355 North Breezeway				
Frederick Rd	Great Seneca Creek	Game Preserve Rd	Separated Bikeway	Sidepath (East Side)
Germantown - Burtonsville Breezeway				
Utility Corridor #2	Midcounty Hwy	Woodfield Rd	Trail	Off-Street Trail
Apple Ridge Rd	Watkins Mill High School	Montgomery Village Ave	Separated Bikeway	Sidepath (North Side)
Centerway Rd	Montgomery Village Ave	Snouffer School Rd	Separated Bikeway	Sidepath (North Side)
Christopher Ave	City of Gaithersburg	Montgomery Village Ave	Separated Bikeway	Separated Bike Lanes (Two-Way, South Side)
Contour Rd	Lost Knife Rd	Odendhal Ave	Separated Bikeway	Sidepath (North Side)
East Village Ave	Goshen Rd	Woodfield Rd	Separated Bikeway	Sidepath (North Side)
Emory Grove Rd	Walkers Mill Rd	Washington Grove La	Separated Bikeway	Sidepath (North Side)
Flower Hill Way	Mountain Laurel La	Woodfield Rd	Separated Bikeway	Sidepath (East Side)
Frederick Rd	Great Seneca Creek	Game Preserve Rd	Separated Bikeway	Sidepath (West Side)
Goshen Rd	Warfield Rd	Odendhal Ave	Separated Bikeway and Striped Bikeway	Sidepath (West Side) and Conventional Bike Lanes
Lost Knife Rd	Montgomery Village Ave	Odendhal Ave	Separated Bikeway	Separated Bike Lanes (Two-Way, South Side)
Midcounty Hwy	Great Seneca Creek	Montgomery Village Ave	Separated Bikeway	Sidepath (Side TBD)
	Montgomery Village Ave	Washington Grove La	Separated Bikeway and Bikeable Shoulders	Sidepath (Side TBD) and Bikeable Shoulders
Montgomery Village Ave	Wightman Rd	Lost Knife Rd	Separated Bikeway	Sidepath (Both Sides)
Odendhal Ave	City of Gaithersburg	Goshen Rd	Separated Bikeway	Sidepath (North Side)
Quail Valley Blvd	Strawberry Knoll Rd	Strawberry Knoll Rd	Separated Bikeway	Sidepath (East Side)
Snouffer School Rd	Goshen Rd	Woodfield Rd	Separated Bikeway	Sidepath (North Side)
Stedwick Rd	Watkins Mill Rd	Seneca Ridge Rd	Separated Bikeway	Sidepath (South Side)
Stedwick Rd	Seneca Ridge Rd	Montgomery Village Ave	Separated Bikeway	Sidepath (North Side)
Stewartown Rd Ext	Watkins Mill Rd	Montgomery Village Ave	Separated Bikeway	Sidepath (South Side)
Stewartown Rd	Montgomery Village Ave	Goshen Rd	Separated Bikeway	Sidepath (South Side)
Strawberry Knoll Rd	Centerway Rd	Emory Grove Rd	Separated Bikeway	Sidepath (West Side)
Warfield Rd	Wightman Rd	Woodfield Rd	Separated Bikeway	Sidepath (South Side)
Washington Grove La	Emory Grove Rd	Amity Dr	Separated Bikeway	Sidepath (West Side)
Watkins Mill Rd	Great Seneca Creek	Midcounty Hwy	Separated Bikeway	Sidepath (West Side)
Wightman Rd	Brink Rd	Goshen Rd	Separated Bikeway	Sidepath (North Side)
Woodfield Rd	Warfield Rd	Emory Grove Rd	Separated Bikeway	Sidepath (West Side)

North Bethesda/Twinbrook



Policy Area
Parkland
City of Rockville
Breezeway Network

Existing	Proposed	
		Trails
		Separated Bikeways
		Striped Bikeways
		Shared Roads
		Grade Separated Crossing

0 3000'

Note: White lines represent non-master planned bikeways

North Bethesda / Twinbrook Policy Areas

Bikeway	From	To	Facility Type	Bikeway Type
MD 355 South Breezeway				
Rockville Pike	City of Rockville	Towne Rd	Separated Bikeway	Separated Bike Lanes (Two-Way, West Side)
See White Flint Policy Area				
Bethesda Trolley Trail	Edson La	Tuckerman La	Trail	Off-Street Trail
	Tuckerman La	Tuckerman Access La	Shared Road	Priority Shared Lane Markings
	Tuckerman Access La	Rossmore Dr	Trail	Off-Street Trail
	Rossmore Dr	I-495	Separated Bikeway	Sidepath (East Side)
Veirs Mill Rd Breezeway				
Veirs Mill Rd	Twinbrook Pkwy	Rock Creek Trail	Separated Bikeway	Sidepath (South Side)
Germantown - Grosvenor Breezeway				
Tuckerman La	I-270	Old Georgetown Rd	Separated Bikeway	Separated Bike Lanes (One-Way, Both Sides)
	Old Georgetown Rd	Grosvenor Pl	Separated Bikeway	Sidepath (Side TBD)
Montrose Parkway Breezeway				
Montrose Pkwy	Railroad Tracks	Rock Creek	Separated Bikeway	Sidepath (North Side)
Strathmore - Kensington Bikeway				
Strathmore Ave	Rockville Pike	Kenilworth Ave	Separated Bikeway	Sidepath (South Side)
Kenilworth Ave	Strathmore Ave	Oxford St	Shared Road	Neighborhood Greenway
Oxford St	Kenilworth Ave	Montrose Ave	Shared Road	Neighborhood Greenway
Montrose Ave	Oxford St	Oxford St	Shared Road	Neighborhood Greenway
Oxford St	Montrose Ave	Weymouth St	Shared Road	Neighborhood Greenway
Weymouth St	Oxford St	Knowles Ave	Separated Bikeway	Sidepath (Side TBD)
Knowles Ave	Weymouth St	Rock Creek Trail	Separated Bikeway	Sidepath (West Side)
Boiling Brook Pkwy	Parklawn Dr	Schuykill Rd	Separated Bikeway	Separated Bike Lanes (Side TBD)
Bou Ave	Rockville Pike	Montrose Pkwy	Separated Bikeway	Sidepath (East Side)
Chapman Ave	City of Rockville	Bou Ave	Separated Bikeway	Sidepath (West Side)
Cheshire Dr	Old Georgetown Rd	Grosvenor La	Separated Bikeway	Sidepath (Side TBD)
Democracy Blvd	I-270 Spur	Old Georgetown Rd	Separated Bikeway	Sidepath (North Side)
Edson La	Old Georgetown Rd	Woodglen Dr	Separated Bikeway	Sidepath (Side TBD)
Executive Blvd	Jefferson St	Old Georgetown Rd	Separated Bikeway	Separated Bike Lanes (Side TBD)
Fernwood Rd	Rockledge Dr	Democracy Blvd	Separated Bikeway	Separated Bike Lanes (Two-Way, East Side)
	Democracy Blvd	I-495	Separated Bikeway	Sidepath (East Side)
Flanders Ave	Rockville Pike	Strathmore Ave	Separated Bikeway	Sidepath (Side TBD)

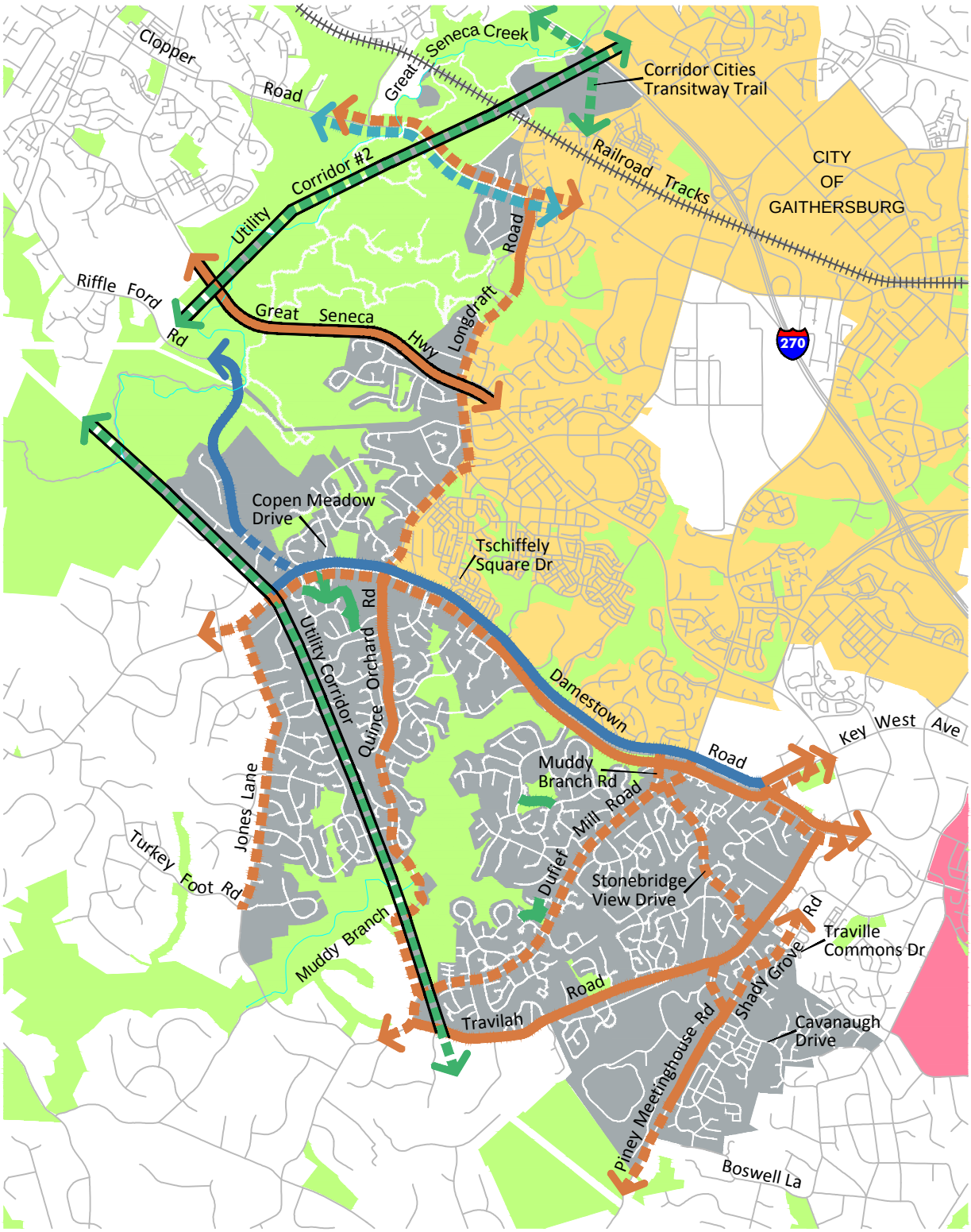
North Bethesda / Twinbrook Policy Areas

Bikeway	From	To	Facility Type	Bikeway Type
Fleming Ave	Rossmore Dr	Bethesda Trolley Trail	Shared Road	Neighborhood Greenway
Garrett Park Rd	Schuylkill Rd	Rock Creek Trail	Separated Bikeway	Sidepath (North Side)
Grosvenor La	Cheshire Dr	I-270	Separated Bikeway	Sidepath (Side TBD)
Grosvenor La	Rockville Pike	Beach Dr	Separated Bikeway	Sidepath (North Side)
Hitching Post La	Montrose Rd	Swim Club Way	Separated Bikeway	Sidepath (South Side)
I-270 Northbound Ramp	Old Georgetown Rd	Rockledge Blvd	Separated Bikeway	Sidepath (North Side)
Jefferson St	City of Rockville	Executive Blvd	Separated Bikeway	Separated Bike Lanes (Side TBD)
Kenilworth Ave	Montrose Ave	Neighborhood Connector	Separated Bikeway	Sidepath (West Side)
Lone Oak Dr	Fernwood Rd	Old Georgetown Rd	Separated Bikeway	Sidepath (South Side)
Luxmanor Rd	Tilden La	Tuckerman La	Shared Road	Neighborhood Greenway
Montrose Ave	Grosvenor Policy Area	Kenilworth Ave	Separated Bikeway	Sidepath (North Side)
Montrose Rd	I-270	Hitching Post La	Separated Bikeway	Sidepath (South Side)
Montrose Rd	Tildenwood La	Towne Rd	Separated Bikeway	Sidepath (North Side)
Nicholson La	Old Georgetown Rd	Executive Blvd	Separated Bikeway	Separated Bike Lanes (One-Way, Both Sides)
North-South Connector	Rock Spring Dr	Democracy Blvd	Separated Bikeway	Separated Bike Lanes (One-Way, Both Sides)
Old Georgetown Rd	Towne Rd	Nicholson La	Separated Bikeway	Sidepath (Both Sides)
	Nicholson La	Tuckerman La	Separated Bikeway	Sidepath (East Side)
	Tuckerman La	I-270	Separated Bikeway	Sidepath (Both Sides)
	I-270	Cheshire Dr	Separated Bikeway	Sidepath (West Side) and Separated Bike Lanes (Two-Way, East Side)
	Cheshire Dr	I-495	Separated Bikeway	Sidepath (East Side)
Parklawn Dr	Twinbrook Pkwy	Railroad Tracks	Separated Bikeway	Sidepath (Side TBD)
Randolph Rd	Railroad Tracks	Parklawn Dr	Separated Bikeway	Sidepath (South Side)
	Parklawn Dr	Hunters La	Separated Bikeway	Separated Bike Lanes (Two-Way, South Side)
	Hunters La	Rock Creek	Separated Bikeway	Sidepath (South Side)
Rock Creek Trail	Veirs Mill Rd Trail Connector	Matthew Henson Trail	Trail	Stream Valley Park Trail
Rock Spring Dr	Fernwood Rd	Old Georgetown Rd	Separated Bikeway	Separated Bike Lanes (Two-Way, North Side)
Rockledge Blvd	I-270 Northbound Ramp	I-270 Southbound Ramp	Separated Bikeway	Sidepath (East Side)
	I-270 Southbound Ramp	Rockledge Dr	Separated Bikeway	Sidepath (East Side)
Rockledge Dr	Westlake Ter	Rockledge Blvd	Separated Bikeway	Separated Bike Lanes (One-Way, Both Sides)
	Rockledge Dr	Democracy Blvd	Separated Bikeway	Separated Bike Lanes (Two-Way, East Side)
Rockville Pike	City of Rockville	Towne Rd	Separated Bikeway	Separated Bike Lanes (Two-Way, East Side)
Rockville Pike	White Flint Policy Area	Strathmore Ave	Separated Bikeway	Sidepath (Both Sides)
	Strathmore Ave	Grosvenor Policy Area	Separated Bikeway	Sidepath (East Side)

North Bethesda / Twinbrook Policy Areas

Bikeway	From	To	Facility Type	Bikeway Type
Rossmore Dr	Berkshire Dr	Fleming Ave	Shared Road	Neighborhood Greenway
Strathmore Trail	Strathmore Ave	Tuckerman La	Trail	Off-Street Trail
Swim Club Way	Hitching Post La	Trail	Separated Bikeway	Sidepath (South Side)
Tilden La	Danville Dr	Old Georgetown Rd	Separated Bikeway	Sidepath (North Side)
Towne Rd	Rockville Pike	Old Georgetown Rd	Separated Bikeway	Separated Bike Lanes (Two-Way, West Side)
Trail	Swim Club Way	Montrose Pkwy	Trail	Off-Street Trail
Twinbrook Pkwy	Veirs Mill Rd	Halpine Rd	Separated Bikeway	Sidepath (Both Sides)
	Halpine Rd	City of Rockville	Separated Bikeway	Separated Bike Lanes (Two-Way, Both Sides)
Twinbrook - Veirs Mill Rd Connector	Veirs Mill Rd	Rock Creek Mill Rd	Trail	Off-Street Trail
Westlake Ter	I-270 Spur	Rockledge Dr	Separated Bikeway	Separated Bike Lanes (Two-Way, South Side)
Weymouth St	Montrose Ave	Knowles Ave	Separated Bikeway	Sidepath (Side TBD)
Woodglen Dr	Marinelli Rd	Edson La	Separated Bikeway	Separated Bike Lanes (Two-Way, West Side)
Wyaconda Rd	Bike / Ped Bridge	Schuylkill Rd	Separated Bikeway	Separated Bike Lanes (Side TBD)
Weymouth St	Montrose Ave	Knowles Ave	Separated Bikeway	Sidepath (Side TBD)

North Potomac



Policy Area
Parkland
City of Gaithersburg
City of Rockville
Breezeway Network

Existing	Proposed	
		Trails
		Separated Bikeways
		Striped Bikeways
		Bikeable Shoulders

Note: White lines represent non-master planned bikeways

0 4500'

North Potomac

Bikeway	From	To	Facility Type	Bikeway Type
Germantown - Grosvenor Breezeway				
Utility Corridor #1	Great Seneca Creek	Travilah Rd	Trail	Off-Street Trail
Germantown - Burtonsville Breezeway				
Utility Corridor #2	Great Seneca Creek	I-270	Trail	Off-Street Trail
Germantown - Life Sciences Center Breezeway				
Great Seneca Hwy	Great Seneca Creek	Longdraft Rd	Separated Bikeway	Sidepath (East Side)
Clopper Rd	Great Seneca Creek	Longdraft Rd	Separated Bikeway and Bikeable Shoulders	Sidepath (West Side) and Bikeable Shoulders
Corridor Cities Transitway Trail	Great Seneca Creek	City of Gaithersburg	Trail	Off-Street Trail
Darnestown Rd	Utility Corridor #1	Copen Meadow Dr	Separated Bikeway and Striped Bikeway	Sidepath (North Side) and Conventional Bike Lanes
	Copen Meadow Dr	Tschiffely Square Rd	Separated Bikeway and Striped Bikeway	Separated Bike Lanes (Two-Way, North Side) and Conventional Bike Lanes
	Tschiffely Square Rd	Key West Ave	Separated Bikeway and Striped Bikeway	Sidepath (North Side) and Conventional Bike Lanes
	Key West Ave	Travilah Rd	Separated Bikeway	Sidepath (Both Sides)
Dufief Mill Rd	Darnestown Rd	Travilah Rd	Separated Bikeway	Sidepath (East Side)
Longdraft Rd	Clopper Rd	City of Gaithersburg	Separated Bikeway	Sidepath (West Side)
Longdraft Rd	City of Gaithersburg	Quince Orchard Rd	Separated Bikeway	Sidepath (West Side)
Muddy Branch Rd	Darnestown Rd	Dufief Mill Rd	Separated Bikeway	Sidepath (East Side)
Piney Meetinghouse Rd	Travilah Rd	Boswell La	Separated Bikeway	Sidepath (East Side)
Quince Orchard Rd	Hillstone Rd	Darnestown Rd	Separated Bikeway	Sidepath (Both Sides)
Quince Orchard Rd	Darnestown Rd	Dufief Mill Rd	Separated Bikeway	Sidepath (West Side)
Riffle Ford Rd	Great Seneca Creek	Darnestown Rd	Striped Bikeway	Buffered Bike Lanes
Shady Grove Rd	R&D Village Policy Area	Cavanaugh Dr	Separated Bikeway	Sidepath (West Side)
Stonebridge View Dr	Muddy Branch Rd	Travilah Rd	Separated Bikeway	Sidepath (East Side)
Travilah Rd	Darnestown Rd	Dufief Mill Rd	Separated Bikeway	Sidepath (West Side)

Olney

Existing Proposed

- Policy Area
- Parkland
- B Bus Rapid Transit Station (Proposed)
- Breezeway Network
- Trails
- Separated Bikeways
- Striped Bikeways
- Bikeable Shoulders
- Shared Roads

Olney


Brookeville Rd
Brookeville Bypass
Gold Mine Rd.
Chandler Mill Rd.
Olney Mill Road
Olney-Laytonsville Road
Queen Elizabeth Dr.
Briars Rd
Wickman Rd.
Prince Phillip Dr.
Spartan Dr.
Headwaters Dr.
Utility Corridor #4
Bowie Mill Road
Olney-Sandy Spring Rd.
Meadow Sweet Drive
Brooke Rd.
Buehler Rd
Queen Mary Dr
Georgia Avenue
Prince Phillip Drive
Baltimore Road
Wellfleet Dr.
Hines Road
North Branch Rock Creek
Cashell Road
Cherry Valley Dr.
Old Vic Blvd.
Norwood Rd.
Dr. Bird Rd.
Old Forest Road
Norwood Road
Emory Church Road
Batchellors
Emory Lane
Olney #4
Olney #5
ICC Trail
Layhill Rd.
Muncaster Mill Rd.
Norbeck Rd
B
Existing
Proposed
Policy Area
Parkland
Bus Rapid Transit Station (Proposed)
Breezeway Network
Trails
Separated Bikeways
Striped Bikeways
Bikeable Shoulders
Shared Roads

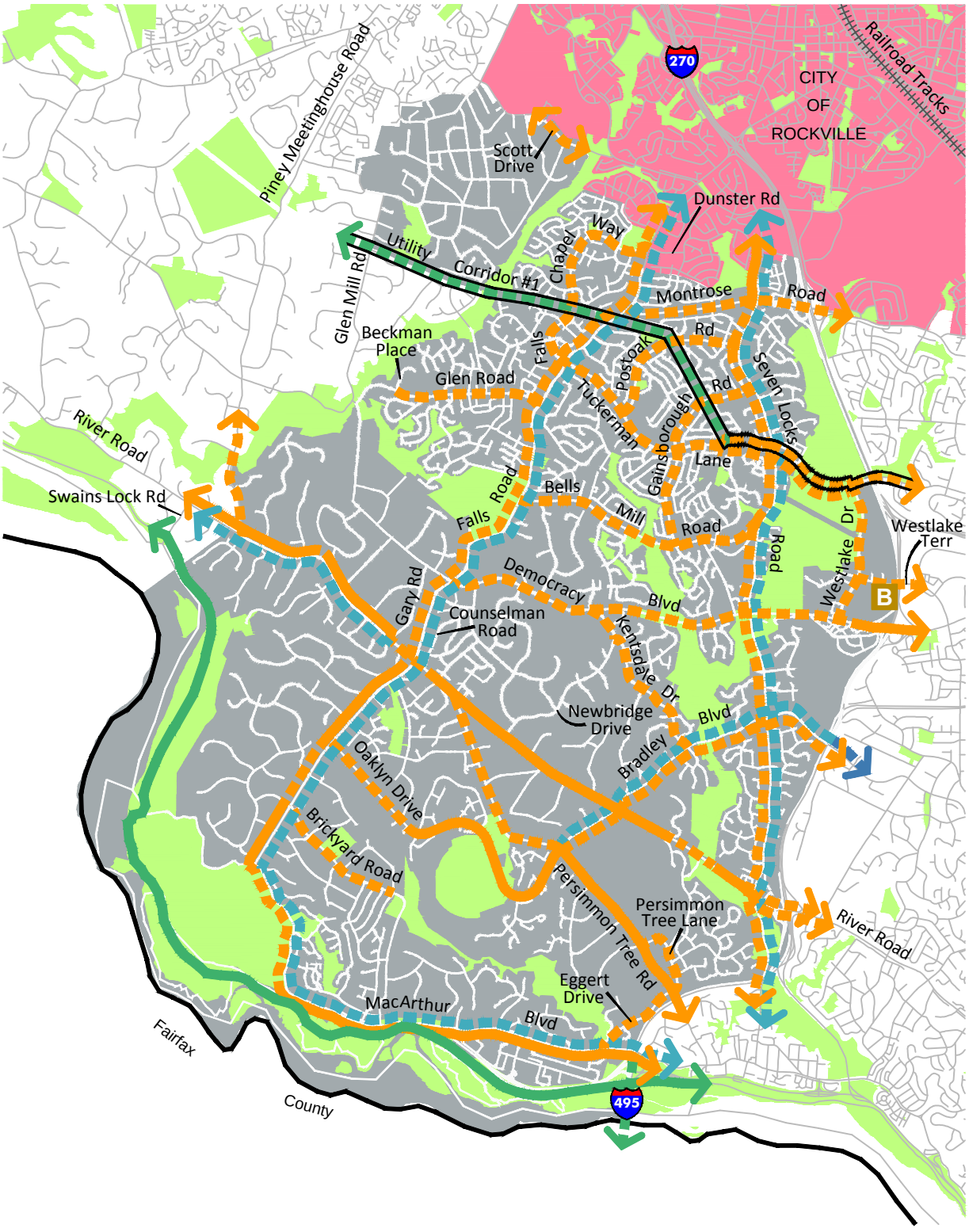
Olney

Street	From	To	Facility Type	Bikeway Type
Georgia Ave North Breezeway				
Georgia Ave	Olney-Laytonsville Rd	Queen Mary Dr	Separated Bikeway	Separated Bike Lanes (Two-Way, West Side)
Georgia Ave	Queen Mary Dr	Norbeck Rd	Separated Bikeway	Sidepath (West Side)
Intercounty Connector Trail Breezeway				
Intercounty Connector Trail	North Branch Rock Creek	Norbeck Rd	Trail	Off-Street Trail
MD 108 (North Side)				
Olney-Laytonsville Rd	Brookeville Rd	Olney Policy Area	Separated Bikeway and Bikeable Shoulders	Sidepath (North Side) and Bikeable Shoulders
Olney-Laytonsville Service Rd	Olney Policy Area	Queen Elizabeth Dr	Shared Road	Neighborhood Greenway
Olney-Laytonsville Rd	Queen Elizabeth Dr	Georgia Ave	Separated Bikeway	Sidepath (North Side)
Olney-Sandy Spring Rd	Georgia Ave	Brooke Rd	Separated Bikeway	Sidepath (North Side)
MD 108 (South Side)				
Olney-Laytonsville Rd	Brookeville Rd	Olney Policy Area	Separated Bikeway and Bikeable Shoulders	Bikeable Shoulders
Olney-Laytonsville Rd	Olney Policy Area	Georgia Ave	Separated Bikeway	Sidepath (South Side)
Olney-Sandy Spring Rd	Georgia Ave	Dr. Bird Rd	Separated Bikeway	Sidepath (South Side)
3rd Ave	Olney #1	Georgia Ave	Separated Bikeway	Separated Bike Lanes (One-Way on Both Sides of Street)
Appomattox Ave	Hillcrest Rd	Spartan Rd	Separated Bikeway	Separated Bike Lanes (One-Way on Both Sides of Street)
Batchellors Forest Rd	Olney #5	Farquhar Middle School	Separated Bikeway	Sidepath (Side TBD)
Bowie Mill Rd	North Branch Rock Creek	Olney-Laytonsville Rd	Separated Bikeway	Sidepath (South Side)
Brooke Rd	Meadowsweet Dr	Olney Sandy Spring Rd	Separated Bikeway	Sidepath (East Side)
Briars Rd	Thornhurst Dr	Bowie Mill Rd	Separated Bikeway	Sidepath (West Side)
Brookeville Bypass	Brookeville Rd	Gold Mine Rd	Bikeable Shoulders	Bikeable Shoulders
Buehler Rd	Spartan Rd	Lockness Cir	Striped Bikeway	Conventional Bike Lanes
Cashell Rd	Bowie Mill Rd	Emory La	Separated Bikeway	Sidepath (East Side)
Cherry Valley Dr	Wellfleet Dr	Cashell Rd	Separated Bikeway	Sidepath (North Side)
Emory Church Rd	Olney #4	Olney #5	Separated Bikeway	Sidepath (South Side)
Emory La	Georgia Ave	Muncaster Mill Rd	Separated Bikeway	Sidepath (East Side)
Georgia Ave	Brookeville Rd	Norbeck Rd	Separated Bikeway	Sidepath (East Side)
Gold Mine Rd	Olney Mill Rd	Chandlee Mill Rd	Separated Bikeway	Sidepath (South Side)
Headwaters Dr	Olney-Laytonsville Rd	Morningwood Dr	Separated Bikeway	Sidepath (South Side)
Hillcrest Ave	Georgia Ave	Appomattox Ave	Separated Bikeway	Separated Bike Lanes (One-Way on Both Sides of Street)
Hines Rd	Cashell Rd	Georgia Ave	Separated Bikeway	Separated Bike Lanes (Side TBD)
Morningwood Dr	Cashell Rd	Georgia Ave	Separated Bikeway	Sidepath (Side TBD)

Olney

Street	From	To	Facility Type	Bikeway Type
Muncaster Mill Rd	North Branch Rock Creek	Norbeck Rd	Separated Bikeway and Bikeable Shoulders	Sidepath (West Side) and Bikeable Shoulders
Norbeck Rd	Muncaster Mill Rd	Layhill Rd	Separated Bikeway	Sidepath (North Side)
Old Baltimore Rd	Gold Mine Rd	Georgia Ave	Separated Bikeway	Sidepath (West Side)
Old Vic Blvd	Olney-Sandy Spring Rd	Batchellors Forest Rd	Separated Bikeway	Sidepath (West Side)
Olney #1	Olney-Laytonsville Rd	Morningwood Dr	Separated Bikeway	Separated Bike Lanes (One-Way on Both Sides of Street)
Olney #2	Appomattox Ave	Spartan Rd	Separated Bikeway	Separated Bike Lanes (One-Way on Both Sides of Street)
Olney #3	Hillcrest Ave	Spartan Rd	Separated Bikeway	Separated Bike Lanes (One-Way on Both Sides of Street)
Olney #4	Georgia Ave	Emory Church Rd	Trail	Off-Street Trail
Olney #5	Emory Church Rd	Batchellors Forest Rd	Trail	Off-Street Trail
Olney #6	Olney-Laytonsville Rd	Georgia Ave	Trail	Off-Street Trail
Olney Mill Rd	Olney-Laytonsville Rd	Gold Mine Rd	Separated Bikeway	Sidepath (West Side)
Prince Phillip Dr	Georgia Ave	Olney-Sandy Spring Rd	Separated Bikeway	Separated Bike Lanes (One-Way on Both Sides of Street)
	Olney-Sandy Spring Rd	Georgia Ave	Separated Bikeway	Sidepath (East Side)
Queen Elizabeth Dr	Olney-Laytonsville Rd	Georgia Ave	Separated Bikeway	Sidepath (North Side)
Queen Mary Dr	Olney Elementary School	Georgia Ave	Separated Bikeway	Sidepath (North Side)
Spartan Rd	Georgia Ave	Appomattox Ave	Separated Bikeway	Separated Bike Lanes (One-Way on Both Sides of Street)
	Appomattox Ave	Old Baltimore Rd	Separated Bikeway	Sidepath (East Side)
Utility Corridor #3	Bowie Mill Rd	Cherry Valley Dr	Trail	Off-Street Trail
Utility Corridor #4	North Branch Rock Creek	Morningwood Dr	Trail	Off-Street Trail
Utility Corridor #4	Olney-Laytonsville Rd	Queen Elizabeth Dr	Trail	Off-Street Trail
Wellfleet Dr	Hines Rd	Cherry Valley Dr	Separated Bikeway	Sidepath (West Side)
Wickham Rd	Rural East Policy Area	Bowie Mill Rd	Separated Bikeway	Sidepath (West Side)

Potomac



Policy Area
Parkland
City of Rockville
County Line
B Bus Rapid Transit Station (Proposed)
Breezeway Network

Existing	Proposed	
		Trails
		Separated Bikeways
		Striped Bikeways
		Bikeable Shoulders

Note: White lines represent non-master planned bikeways

0 6000'

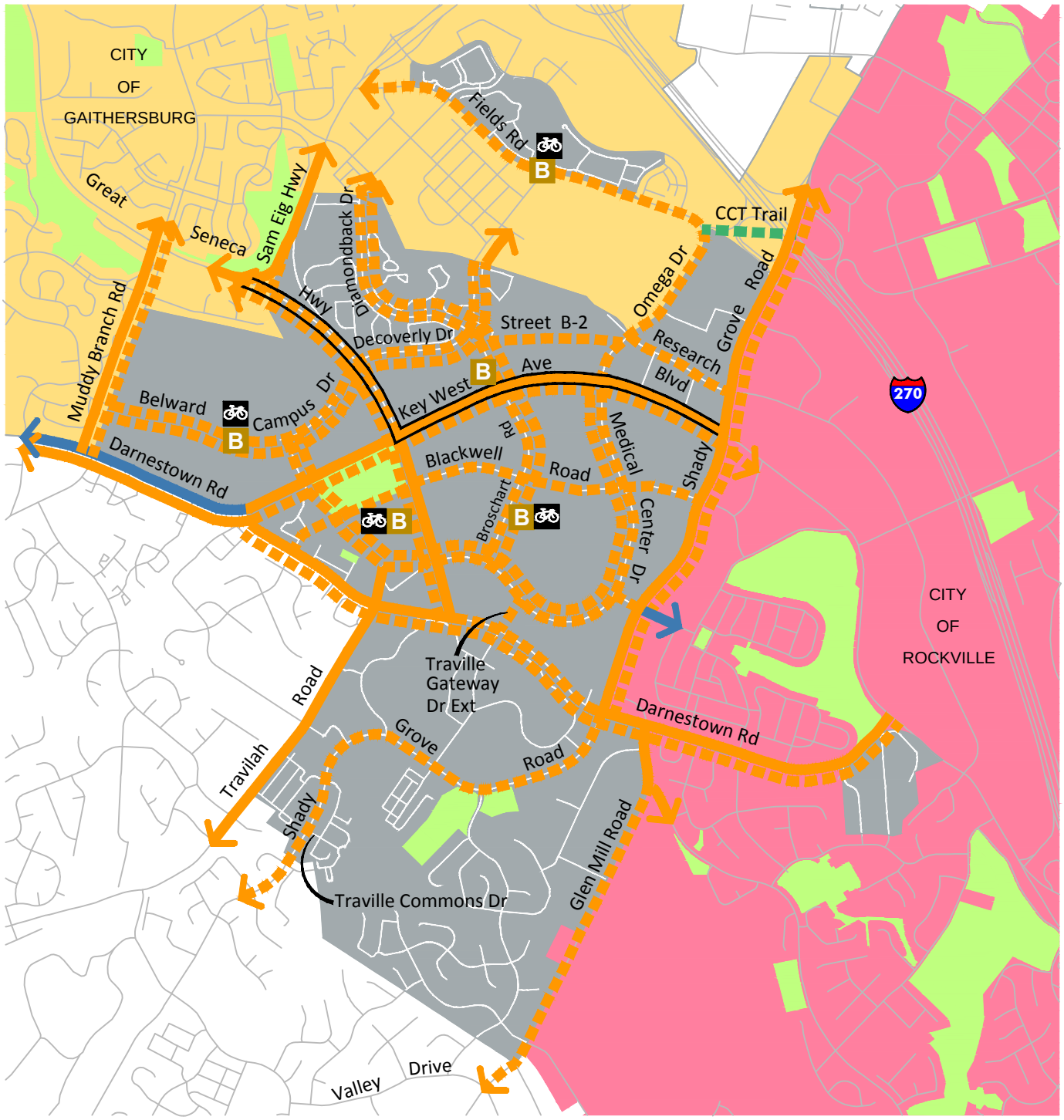
Potomac

Bikeway	From	To	Facility Type	Bikeway Type
Germantown - Grosvenor Breezeway				
Utility Corridor #1	Glen Mill Rd	Tuckerman La	Trail	Off-Street Trail
Tuckerman La	Utility Corridor #1	I-270	Separated Bikeway	Separated Bike Lanes (One-Way, Both Sides)
American Legion Bridge	Virginia	Mac Arthur Blvd	Trail	Off-Street Trail
Bells Mill Rd	Falls Rd	Seven Locks Rd	Separated Bikeway	Sidepath (North Side)
Bradley Blvd	Persimmon Tree Rd	I-495	Separated Bikeway and Bikeable Shoulders	Sidepath (East Side) and Bikeable Shoulders
Brickyard Rd	Falls Rd	Horshoe La	Separated Bikeway	Sidepath (North Side)
C&O Canal Towpath	Rural West Policy Area	I-495	Trail	Off-Street Trail
Democracy Blvd	Falls Rd	Seven Locks Rd	Separated Bikeway and Bikeable Shoulders	Sidepath (North Side) and Bikeable Shoulders
	Seven Locks Rd	I-270 Spur	Separated Bikeway	Sidepath (North Side)
Eggert Dr	MacArthur Blvd	Persimmon Tree Rd	Separated Bikeway	Sidepath (North Side)
Falls Chapel Way	Falls Rd	Falls Rd	Separated Bikeway	Sidepath (West Side)
Falls Rd	Dunster Rd	River Rd	Separated Bikeway and Bikeable Shoulders	Sidepath (East Side) and Bikeable Shoulders
	River Rd	MacArthur Blvd	Separated Bikeway and Bikeable Shoulders	Sidepath (West Side) and Bikeable Shoulders
Gainsborough Rd	Seven Locks Rd	Bells Mill Rd	Separated Bikeway	Sidepath (East Side)
Glen Mill Rd	Veirs Dr	Valley Dr	Separated Bikeway	Sidepath (East Side)
Glen Rd	Beckman Pl	Falls Rd	Separated Bikeway	Sidepath (North Side)
Kentsdale Dr	Newbridge Dr	Bradley Blvd	Separated Bikeway	Sidepath (Side TBD)
MacArthur Blvd	Falls Rd	I-495	Separated Bikeway and Bikeable Shoulders	Sidepath (West Side) and Bikeable Shoulders
Montrose Rd	Falls Rd	I-270	Separated Bikeway	Sidepath (South Side)
Newbridge Rd	Democracy Blvd	Kentsdale Dr	Separated Bikeway	Sidepath (West Side)
Oaklyn Dr	Falls Rd	Persimmon Tree Rd	Separated Bikeway	Sidepath (North Side)
Persimmon Tree La	Persimmon Tree Rd	Persimmon Tree Rd	Separated Bikeway	Sidepath (Side TBD)
Persimmon Tree Rd	River Rd	I-495	Separated Bikeway	Sidepath (West Side)
Piney Meetinghouse Rd	Rural West Policy Area	River Rd	Separated Bikeway	Sidepath (East Side)
Postoak Rd	Seven Locks Rd	Tuckerman La	Separated Bikeway	Sidepath (West Side)
River Rd	Piney Meetinghouse Rd	Gary Rd	Separated Bikeway and Bikeable Shoulders	Sidepath (East Side) and Bikeable Shoulders
	Gary Rd	Counselman Rd	Separated Bikeway	Separated Bike Lanes (Two-Way, East Side)
	Counselman Rd	Seven Locks Rd	Separated Bikeway	Sidepath (East Side)
	Seven Locks Rd	I-495	Separated Bikeway	Sidepath (Both Sides)
Scott Dr	City of Rockville	City of Rockville	Separated Bikeway	Sidepath (North Side)
Seven Locks Rd	City of Rockville	Bradley Blvd	Separated Bikeway and Bikeable Shoulders	Sidepath (West Side) and Bikeable Shoulders

Potomac

Bikeway	From	To	Facility Type	Bikeway Type
Seven Locks Rd	Bradley Blvd	I-495	Separated Bikeway and Bikeable Shoulders	Sidepath (East Side) and Bikeable Shoulders
Tuckerman La	Falls Rd	Utility Corridor #1	Separated Bikeway	Separated Bike Lanes (One-Way, Both Sides)
Westlake Dr	Tuckerman La	Democracy Blvd	Separated Bikeway	Sidepath (East Side)
Westlake Ter	Westlake Dr	I-270 Spur	Separated Bikeway	Separated Bike Lanes (Two-Way, South Side)

R & D Village

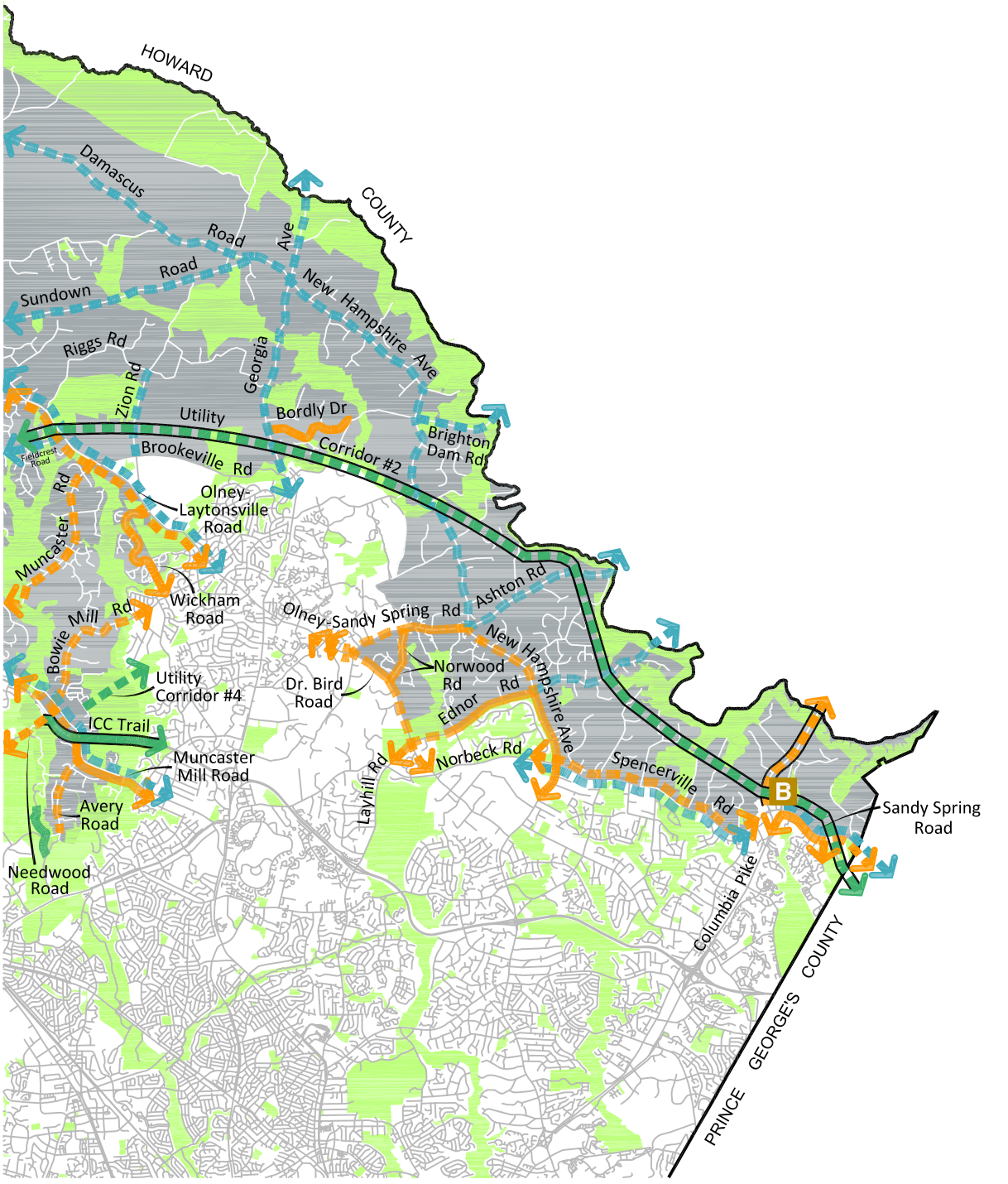


Note: White lines represent non-master planned bikeways

R&D Village

Bikeway	From	To	Facility Type	Bikeway Type
Germantown - Life Sciences Center Breezeway				
Great Seneca Hwy	Sam Eig Hwy	Key West Ave	Separated Bikeway	Sidepath (West Side)
Key West Ave	Great Seneca Hwy	City of Rockville	Separated Bikeway	Sidepath (North Side)
Belward Campus Dr	Muddy Branch Rd	Great Seneca Hwy	Separated Bikeway	Separated Bike Lanes (Two-Way, Both Sides)
Blackwell Rd	Darnestown Rd	Shady Grove Rd	Separated Bikeway	Separated Bike Lanes (One-Way, Both Sides)
Broschart Rd	Key West Ave	Darnestown Rd	Separated Bikeway	Separated Bike Lanes (Two-Way, Both Sides)
Darnestown Rd	Muddy Branch Rd	Key West Ave	Separated Bikeway and Striped Bikeway	Sidepath (North Side) and Conventional Bike Lanes
	Key West Ave	Montgomery Ave	Separated Bikeway	Sidepath (Both Sides)
Decoverly Dr	Great Seneca Hwy	City of Gaithersburg	Separated Bikeway	Separated Bike Lanes (Two-Way, Both Sides)
Diamondback Dr	City of Gaithersburg	Decoverly Dr	Separated Bikeway	Sidepath (Both Sides)
	Decoverly Dr	Key West Ave	Separated Bikeway	Separated Bike Lanes (Two-Way, Both Sides)
Fields Rd	Sam Eig Hwy	City of Gaithersburg	Separated Bikeway	Sidepath (South Side)
Glen Mill Rd	Darnestown Rd	Valley Dr	Separated Bikeway	Sidepath (East Side)
Great Seneca Hwy	Sam Eig Hwy	Darnestown Rd	Separated Bikeway	Sidepath (Both Sides)
Johns Hopkins Dr	Belward Campus Dr	Key West Ave	Separated Bikeway	Separated Bike Lanes (Two-Way, Both Sides)
Key West Ave	Darnestown Rd	City of Rockville	Separated Bikeway	Sidepath (Both Sides)
Medical Center Dr	Key West Ave	Great Seneca Hwy	Separated Bikeway	Separated Bike Lanes (Two-Way, Both Sides)
Medical Center Dr Ext	Great Seneca Hwy	Key West Ave	Separated Bikeway	Separated Bike Lanes (Two-Way, Both Sides)
Medical Center Way	Medical Center Dr	Shady Grove Rd	Separated Bikeway	Separated Bike Lanes (One-Way, Both Sides)
Muddy Branch Rd	City of Gaithersburg	Darnestown Rd	Separated Bikeway	Sidepath (West Side) and Separated Bike Lanes (East Side)
Omega Dr	Research Blvd	Key West Ave	Separated Bikeway	Separated Bike Lanes (Two-Way, West Side)
Research Blvd	Omega Dr	Shady Grove Rd	Separated Bikeway	Separated Bike Lanes (Two-Way, Side TBD)
Sam Eig Hwy Ramp	Sam Eig Hwy	Great Seneca Hwy	Separated Bikeway	Sidepath (West Side)
Sam Eig Hwy	City of Gaithersburg	Great Seneca Hwy	Separated Bikeway	Sidepath (West Side)
Shady Grove Rd	City of Gaithersburg	Darnestown Rd	Separated Bikeway	Sidepath (Both Sides)
	Darnestown Rd	North Potomac Policy Area	Separated Bikeway	Sidepath (West Side)
Street B-2	Diamondback Dr	Omega Dr	Separated Bikeway	Separated Bike Lanes (Two-Way, Side TBD)
Travilah Rd Ext	Medical Center Dr Ext	Darnestown Rd	Separated Bikeway	Sidepath (West Side)
Traville Gateway Dr Ext	Darnestown Rd	Medical Center Dr	Separated Bikeway	Separated Bike Lanes (One-Way, Both Sides)

Rural East - East Side



Note: White lines represent non-master planned bikeways

Rural East (East)

Bikeway	From	To	Facility Type	Bikeway Type
US 29 Corridor Breezeway				
Columbia Pike	Howard County	Old Columbia Pike	Separated Bikeway	Sidepath (West Side)
Old Columbia Pike	Columbia Pike	Utility Corridor #2	Separated Bikeway	Sidepath (West Side)
Germantown - Burtonsville Breezeway				
Utility Corridor #2	Rural East (West) Policy Area	Sandy Spring Rd	Trail	Off-Street Trail
Intercounty Connector Trail Breezeway				
Muncaster Mill Rd	Rock Creek	Needwood Rd	Separated Bikeway and Bikeable Shoulders	Sidepath (West Side) and Bikeable Shoulders
Needwood Rd	Muncaster Mill Rd	Intercounty Connector Trail	Separated Bikeway	Sidepath (South Side)
Intercounty Connector	Needwood Rd	North Branch Rock Creek	Separated Bikeway	Sidepath (South Side)
Ashton Rd	New Hampshire Ave	Howard County	Bikeable Shoulders	Bikeable Shoulders
Avery Rd	Muncaster Mill Rd	Southlawn Dr	Separated Bikeway	Sidepath (West Side)
Bordly Dr	Georgia Ave	Brighton Dam Rd	Separated Bikeway	Sidepath (South Side)
Bowie Mill Rd	Muncaster Mill Rd	North Branch Rock Creek	Separated Bikeway	Sidepath (South Side)
Brighton Dam Rd	New Hampshire Ave	Howard Co	Bikeable Shoulders	Bikeable Shoulders
Brookeville Bypass	Georgia Ave	Brookeville Rd	Bikeable Shoulders	Bikeable Shoulders
Damascus Rd	Laytonsville Rd	Georgia Ave	Bikeable Shoulders	Bikeable Shoulders
Dr. Bird Rd	Olney-Sandy Spring Rd	Norwood Rd	Separated Bikeway	Sidepath (East Side)
Ednor Rd	Howard County	New Hampshire Ave	Bikeable Shoulders	Bikeable Shoulders
Fieldcrest Rd	Belle Chase Dr	Olney-Laytonsville Rd	Bikeable Shoulders	Bikeable Shoulders
Georgia Ave	Howard County	Brookeville Bypass	Bikeable Shoulders	Bikeable Shoulders
Muncaster Mill Rd	Muncaster Rd	North Branch Rock Creek	Separated Bikeway and Bikeable Shoulders	Sidepath (West Side) and Bikeable Shoulders
Muncaster Rd	Olney-Laytonsville Rd	Rural East (West) Policy Area	Separated Bikeway	Sidepath (North Side)
Needwood Rd	Beach Dr	Muncaster Mill Rd	Separated Bikeway	Sidepath (South Side)
New Hampshire Ave	Georgia Ave	Olney-Sandy Spring Rd	Bikeable Shoulders	Bikeable Shoulders
	Olney-Sandy Spring Rd	Ednor Rd	Separated Bikeway	Sidepath (West Side)
Norwood Rd*	Olney-Sandy Spring Rd	Dr. Bird Rd	Separated Bikeway	Sidepath (West Side)
	Dr. Bird Rd	Ednor Rd	Separated Bikeway	Sidepath (East Side)
Old Columbia Pike	Columbia Pike	Dustin Rd	Separated Bikeway	Sidepath (West Side)
	Dustin Rd	Utility Corridor #2	Separated Bikeway	Sidepath (East Side)
Olney-Laytonsville Rd	Town of Laytonsville	Olney Policy Area	Separated Bikeway and Bikeable Shoulders	Sidepath (North Side) and Bikeable Shoulders
Olney-Sandy Spring Rd	Dr. Bird Rd	New Hampshire Ave	Separated Bikeway	Sidepath (North Side)
Sandy Spring Rd	Columbia Pike	Prince George's County	Separated Bikeway and Bikeable Shoulderss	Sidepath (South Side) and Bikeable Shoulders

Rural East (East)

Bikeway	From	To	Facility Type	Bikeway Type
Southlawn Dr	Avery Dr	Rock Creek Trail	Separated Bikeway	Sidepath (Side TBD)
Spencerville Rd	New Hampshire Ave	School Access Rd	Separated Bikeway and Bikeable Shoulders	Sidepath (North Side) and Bikeable Shoulders
Sundown Rd	Town of Laytonsville	Damascus Rd	Bikeable Shoulders	Bikeable Shoulders
Utility Corridor #4	Heartwood Dr	North Branch Rock Creek	Trail	Off-Street Trail
Wickham Rd	Olney-Laytonsville Rd	Olney Policy Area	Separated Bikeway	Sidepath (West Side)
Zion Rd	Riggs Rd	Brookeville Rd	Bikeable Shoulders	Bikeable Shoulders

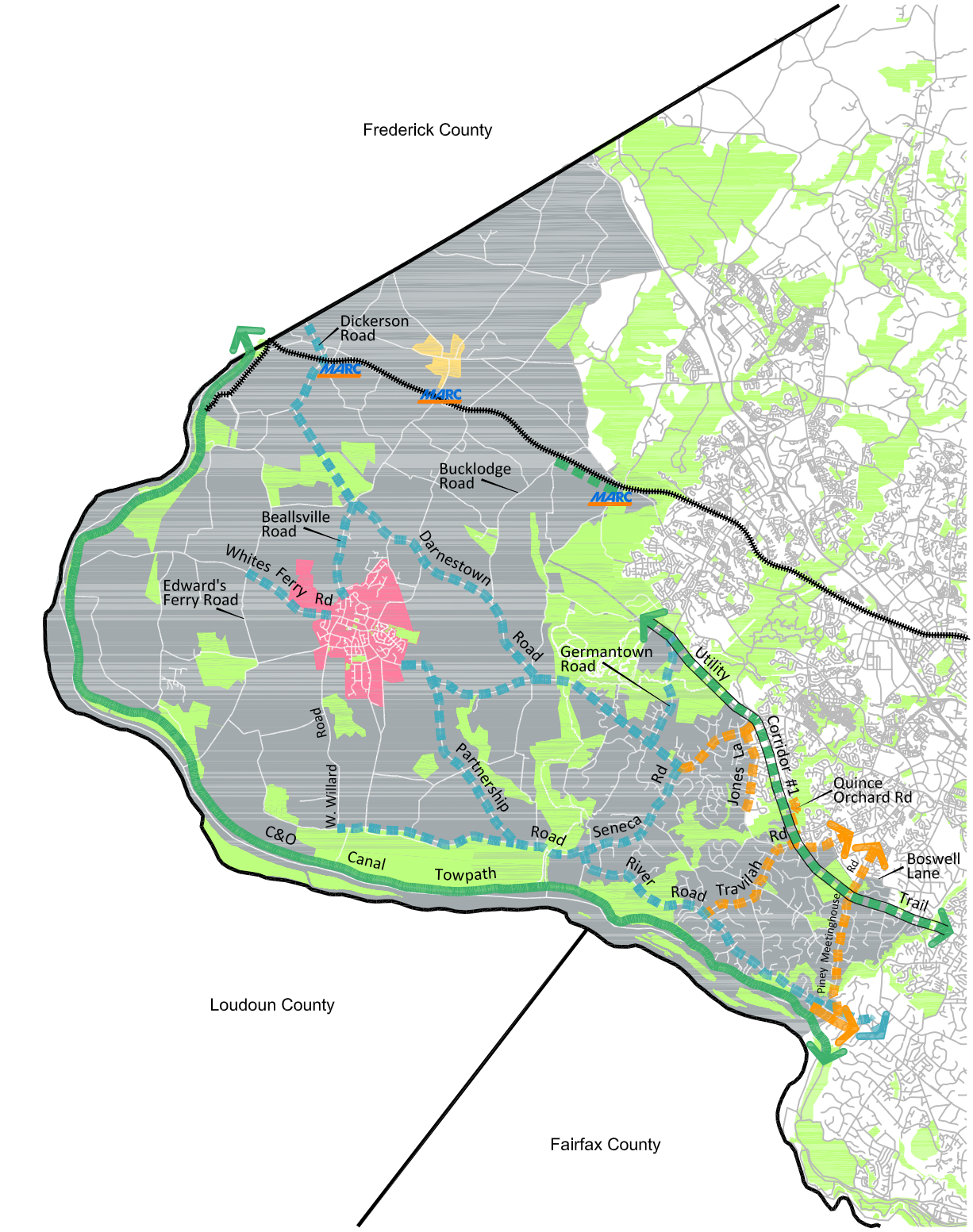
* Appropriate measures must be taken to minimize impacts to Woodlawn Manor Special Park and Red Door Store Special Park.

Image Forthcoming

Rural East (West)

Bikeway	From	To	Facility Type	Bikeway Type
Germantown - Burtonsville Breezeway				
Utility Corridor #2	Woodfield Rd	Rural East (East) Policy Area	Trail	Off-Street Trail
Airpark Rd	Woodfield Rd	Muncaster Mill Rd	Separated Bikeway	Sidepath (East Side)
Brink Rd	Ridge Rd	Wightman Rd	Separated Bikeway	Sidepath (South Side)
Damascus Rd	Reva Dr	Mullinix Mill Rd	Separated Bikeway and Bikeable Shoulders	Sidepath (South Side) and Bikeable Shoulders
	Mullinix Mill Rd	Laytonsville Rd	Bikeable Shoulders	Bikeable Shoulders
Fieldcrest Rd	Woodfield Rd	Belle Chase Dr	Bikeable Shoulders	Bikeable Shoulders
Frederick Rd	Howard County	Hyattstown Bypass	Separated Bikeway	Sidepath (Side TBD)
Frederick Rd	Old Hundred Rd	Comus Rd	Separated Bikeway	Sidepath (West Side)
	Comus Rd	Snowden Farm Pkwy	Separated Bikeway and Bikeable Shoulders	Sidepath (West Side) and Bikeable Shoulders
Goshen Rd	Lochaven Dr	Warfield Rd	Separated Bikeway and Striped Bikeway	Sidepath (West Side) and Conventional Bike Lanes
Hyattstown Bypass	Frederick Rd	Frederick Rd	Separated Bikeway	Sidepath (Side TBD)
Laytonsville Rd	Damascus Rd	Town of Laytonsville	Bikeable Shoulders	Bikeable Shoulders
Midcounty Hwy	Ridge Rd	Brink Rd	Separated Bikeway	Sidepath (South Side)
	Brink Rd	Great Seneca Creek	Separated Bikeway	Sidepath (side TBD)
Muncaster Rd	Rural East (West) Policy Area	Muncaster Mill Rd	Separated Bikeway	Sidepath (North Side)
Ridge Rd	Howard County	Howard County	Bikeable Shoulders	Bikeable Shoulders
Ridge Rd	Howard County	Damascus Policy Area	Bikeable Shoulders	Bikeable Shoulders
Ridge Rd	Preakness Dr	Kings Valley Rd	Separated Bikeway	Sidepath (West Side)
Warfield Rd	Woodfield Rd	Town of Laytonsville	Separated Bikeway	Sidepath (North Side)
Woodfield Rd	Hickory Spring La	Warfield Rd	Separated Bikeway	Sidepath (West Side)

Rural West



Policy Area
Parkland
Barnesville
Poolesville
County Line
Breezeway Network
MARC Station

Existing Proposed

Trails
Separated Bikeways
Bikeable Shoulders

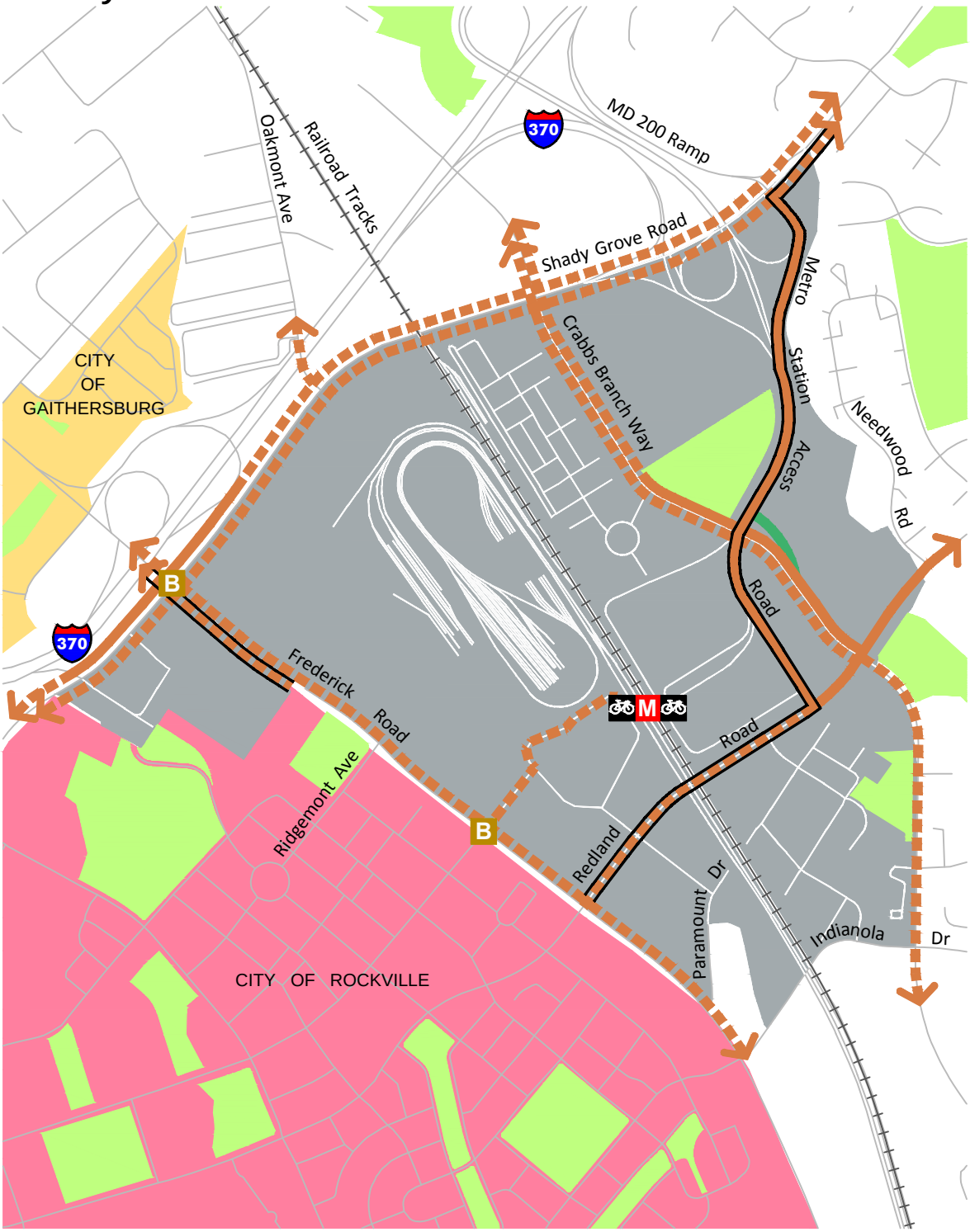
Note: White lines represent non-master planned bikeways.

0 16,000'

Rural West

Bikeway	From	To	Facility Type	Bikeway Type
Germantown - Grosvenor Breezeway				
Utility Corridor #1	Schaeffer Rd	Great Seneca Creek	Trail	Off-Street Trail
See North Potomac Policy Area				
Utility Corridor #1	Travilah Rd	Glen Mill Rd	Trail	Off-Street Trail
Germantown - Burtonsville Breezeway				
Utility Corridor #2	Utility Corridor #1	Germantown West Policy Area	Trail	Off-Street Trail
Beallsville Rd	Darnestown Rd	Poolesville	Bikeable Shoulders	Bikeable Shoulders
Bucklodge - White Ground Connector	Bucklodge Rd	White Ground Rd	Trail	Off-Street Trail
C&O Canal Towpath	Frederick Co	Potomac Policy Area	Trail	Off-Street Trail
Central Park Cir	Burdette Ln	Germantown Park Dr	Separated Bikeway	Sidepath (North Side)
Clarksburg Rd	Ten Mile Creek	Clopper Rd	Separated Bikeway and Bikeable Shoulders	Sidepath (East Side) and Bikeable Shoulders
Clopper Rd	Clarksburg Rd	Little Seneca Creek	Separated Bikeway	Sidepath (East Side)
Darnestown Rd	Dickerson Rd	Seneca Rd	Bikeable Shoulders	Bikeable Shoulders
	Seneca Rd	Utility Corridor	Separated Bikeway	Sidepath (North Side)
Dickerson Rd	Frederick Co	Darnestown Rd	Bikeable Shoulders	Bikeable Shoulders
Germantown Rd	Germantown West Policy Area	Utility Corridor #1	Separated Bikeway	Sidepath (North Side)
Germantown Rd	Utility Corridor #1	Darnestown Rd	Bikeable Shoulders	Bikeable Shoulders
Glen Rd	Piney Meetinghouse Rd	Watts Branch	Separated Bikeway	Sidepath (North Side)
Jones La	Darnestown Rd	Turkey Foot Rd	Separated Bikeway	Sidepath (West Side)
Partnership Rd	Whites Ferry Rd	River Rd	Bikeable Shoulders	Bikeable Shoulders
Piney Meetinghouse Rd	Boswell La	Potomac Policy Area	Separated Bikeway	Sidepath (East Side)
River Rd	W. Willard Rd	Swains Lock Rd	Bikeable Shoulders	Bikeable Shoulders
River Rd	Swains Lock Rd	Piney Meetinghouse Rd	Separated Bikeway and Bikeable Shoulders	Sidepath (East Side) and Bikeable Shoulders
Seneca Rd	Darnestown Rd	River Rd	Bikeable Shoulders	Bikeable Shoulders
Travilah Rd	Dufief Mill Rd	River Rd	Separated Bikeway	Sidepath (West Side)
Whites Ferry Rd	Edwards Ferry Rd	Poolesville	Bikeable Shoulders	Bikeable Shoulders
Whites Ferry Rd	Poolesville	Darnestown Rd	Bikeable Shoulders	Bikeable Shoulders

Shady Grove Metro Station



- Policy Area
- Parkland
- City of Gaithersburg
- City of Rockville
- M Metro Rail Station
- B Bus Rapid Transit Station (Proposed)
- Breezeway Network

Existing Proposed

- Trails
- Separated Bikeways
- Bicycle Parking Station

Note: White lines represent non-master planned bikeways

0 1200'

Shady Grove Metro Station

Bikeway	From	To	Facility Type	Bikeway Type
Intercounty Connector Trail Breezeway				
Redland Rd	Frederick Rd	Shady Grove Access Rd	Separated Bikeway	Sidepath (North Side)
Shady Grove Access Rd	Redland Rd	Shady Grove Rd	Separated Bikeway	Sidepath (East Side)
Crabbs Branch Way	Shady Grove Rd	Redland Rd	Separated Bikeway	Sidepath (Both Sides)
	Redland Rd	Indianola Dr	Separated Bikeway	Sidepath (West Side)
Frederick Rd	Shady Grove Rd	City of Rockville	Separated Bikeway	Sidepath (Both Sides)
	City of Rockville	Ridgemont Ave	Separated Bikeway	Sidepath (East Side)
	Ridgemont Ave	Paramount Dr	Separated Bikeway	Separated Bike Lanes (Two-Way, East Side)
Redland Rd	Needwood Rd (South)	Shady Grove Access Rd	Separated Bikeway	Sidepath (North Side)
Shady Grove Metro Parking Lot	Shady Grove Metro Station	Frederick Rd	Separated Bikeway	Separated Bike Lanes (Side TBD)
Shady Grove Rd	City of Rockville	MD 200 Ramp	Separated Bikeway	Sidepath (Both Sides)

Silver Spring CBD

Note: White lines represent non-master planned bikeways

Silver Spring CBD

Street	From	To	Facility Type	Bikeway Type
Capital Crescent Trail Breezeway				
Capital Crescent Trail	Spring St	Silver Spring Transit Center	Trail	Off-Street Trail
Metropolitan Branch Trail Breezeway				
Metropolitan Branch Trail	Silver Spring Transit Center	Silver Spring - Takoma Park Policy Area	Trail	Off-Street Trail
Georgia Ave South Breezeway				
Fenton St Extended	Spring St	Cameron St	Separated Bikeway	Separated Bike Lanes
Fenton St	Cameron St	Wayne Ave	Separated Bikeway	Separated Bike Lanes
US 29 Corridor Breezeway				
Ellsworth Dr	Spring St	Fenton St	Separated Bikeway	Separated Bike Lanes (Two-Way, East Side)
13th St	District of Columbia	Georgia Ave	Separated Bikeway	Separated Bike Lanes (Side TBD)
16th St	Spring St	District of Columbia	Separated Bikeway	Separated Bike Lanes (Two-Way, East Side)
2nd Ave / Wayne Ave	Spring St	Colesville Rd	Separated Bikeway	Separated Bike Lanes (One-Way, Both Sides)
	Colesville Rd	Cedar St	Separated Bikeway	Separated Bike Lanes
Burlington Ave	Georgia Ave	Fenton St	Separated Bikeway	Separated Bike Lanes
Cameron St	Spring St	2nd Ave	Separated Bikeway	Separated Bike Lanes
Colesville Rd	16th St	East-West Hwy	Separated Bikeway	Separated Bike Lanes (Two-Way, North Side) & Sidepath (South Side)
Colesville Rd	East-West Hwy	Wayne Ave	Separated Bikeway	Separated Bike Lanes
Dixon Ave	Wayne Ave	Georgia Ave	Separated Bikeway	Separated Bike Lanes
East-West Hwy	16th St	Colesville Rd	Separated Bikeway	Separated Bike Lanes (Two-Way, North Side)
	Colesville Rd	Georgia Ave	Separated Bikeway	Separated Bike Lanes
Ellsworth Dr	Fenton St	Georgia Ave	Shared Road	Shared Street
Fenton St	Wayne Ave	King St	Separated Bikeway	Separated Bike Lanes
Metropolitan Branch Trail / King St (Interim)	Railroad Tracks	Fenton St	Separated Bikeway	Sidepath (South Side)
Metropolitan Branch Trail / Fenton St (Interim)	King St	New York Ave	Separated Bikeway	Sidepath (West Side)
Newell St	District of Columbia	East-West Hwy	Striped Bikeway	Conventional Bike Lanes
Philadelphia Ave / Gist Ave	Selim Rd	Silver Spring - Takoma Park Policy Area	Shared Road	Priority Shared Lane Markings
Selim Rd	Philadelphia Ave	Metropolitan Branch Trail	Separated Bikeway	Sidepath (West Side)
Silver Spring Ave	Georgia Ave	Silver Spring - Takoma Park Policy Area	Shared Road	Priority Shared Lane Markings
Silver Spring Ave	Fenton St	811 Silver Spring Ave	Separated Bikeway	Separated Bike Lanes
Spring St / Cedar St	16th St	Wayne Ave	Separated Bikeway	Separated Bike Lanes (One-Way, Both Sides)

Silver Spring/Takoma Park (East Side)

Policy Area
Parkland
County Line
M Metro Rail Station
B Bus Rapid Transit Station
P Purple Line Station
Breezeway Network

Existing	Proposed	
		Trails
		Separated Bikeways
		Striped Bikeways
		Shared Roads
		Grade Separated Crossing

Note: White lines represent non-master planned bikeways

0 2600'

Silver Spring - Takoma Park East

Bikeway	From	To	Facility Type	Bikeway Type
US 29 Corridor Breezeway				
Fairway Ave	Marshall Ave	Granville Dr	Shared Road	Neighborhood Greenway
Caroline Ave	Granville Dr	Franklin Ave	Shared Road	Neighborhood Greenway
Franklin Ave	Caroline Ave	Worth Ave	Separated Bikeway	Sidepath (South Side)
Sligo Creek Trail	Worth Ave	Bennington La	Trail	Stream Valley Park Trail
Bennington La	Bennington Dr	Off-Street Trail	Shared Road	Neighborhood Greenway
Bennington Dr	Ellsworth Dr	Bennington La	Shared Road	Neighborhood Greenway
Ellsworth Dr	Bennington Rd	Cedar St	Shared Road	Neighborhood Greenway
Metropolitan Branch Trail Breezeway				
Takoma Ave	Silver Spring CBD Policy Area	District of Columbia	Trail	Off-Street Trail
University Blvd Breezeway				
University Blvd	I-495	Langley Dr	Separated Bikeway	Sidepath (East Side)
Wayne Ave - Fenton St Neighborhood Greenway				
Cedar St	Wayne Ave	Bonifant St	Shared Road	Neighborhood Greenway
Bonifant St	Cedar St	Grove St	Shared Road	Neighborhood Greenway
Grove St	Bonifant St	Sligo Ave	Shared Road	Neighborhood Greenway
Sligo Ave	Grove St	Woodbury St	Separated Bikeway	Separated Bike Lanes (Two-Way, Side TBD)
Woodbury Dr	Sligo Ave	Neighborhood Connector	Shared Road	Neighborhood Greenway
Neighborhood Connector	Woodbury Dr	Fenton St	Trail	Neighborhood Connector
Baltimore Ave	District of Columbia	Philadelphia Ave	Shared Road	Neighborhood Greenway
I-495 Bridge	I-495	Fairway Ave	Trail	Off-Street Trail
Carroll Ave	Piney Branch Rd	University Blvd	Separated Bikeway	Separated Bike Lanes (One-Way, Both Sides)
	University Blvd	Merrimac Dr	Separated Bikeway	Separated Bike Lanes (One-Way, Both Sides)
	University Blvd	Long Branch Pkwy	Striped Bikeway	Conventional Bike Lanes
	Long Branch Pkwy	Flower Ave	Shared Road	Priority Shared Lane Markings
	Flower Ave	Lee Ave	Striped Bikeway	Conventional Bike Lanes
	Lee Ave	Ethan Allen Ave	Shared Road	Priority Shared Lane Markings
	Ethan Allen Ave	Tulip Ave	Striped Bikeway	Conventional Bike Lanes
	Tulip Ave	District of Columbia	Shared Road	Priority Shared Lane Markings
Cedar Ave	District of Columbia	Philadelphia Ave	Shared Road	Neighborhood Greenway
Cedar St	Ellsworth Dr	Wayne Ave	Separated Bikeway	Separated Bike Lanes (One-Way, Both Sides)
City Hall Parking Lot	Philadelphia Ave	Grant Ave	Trail	Off-Street Trail

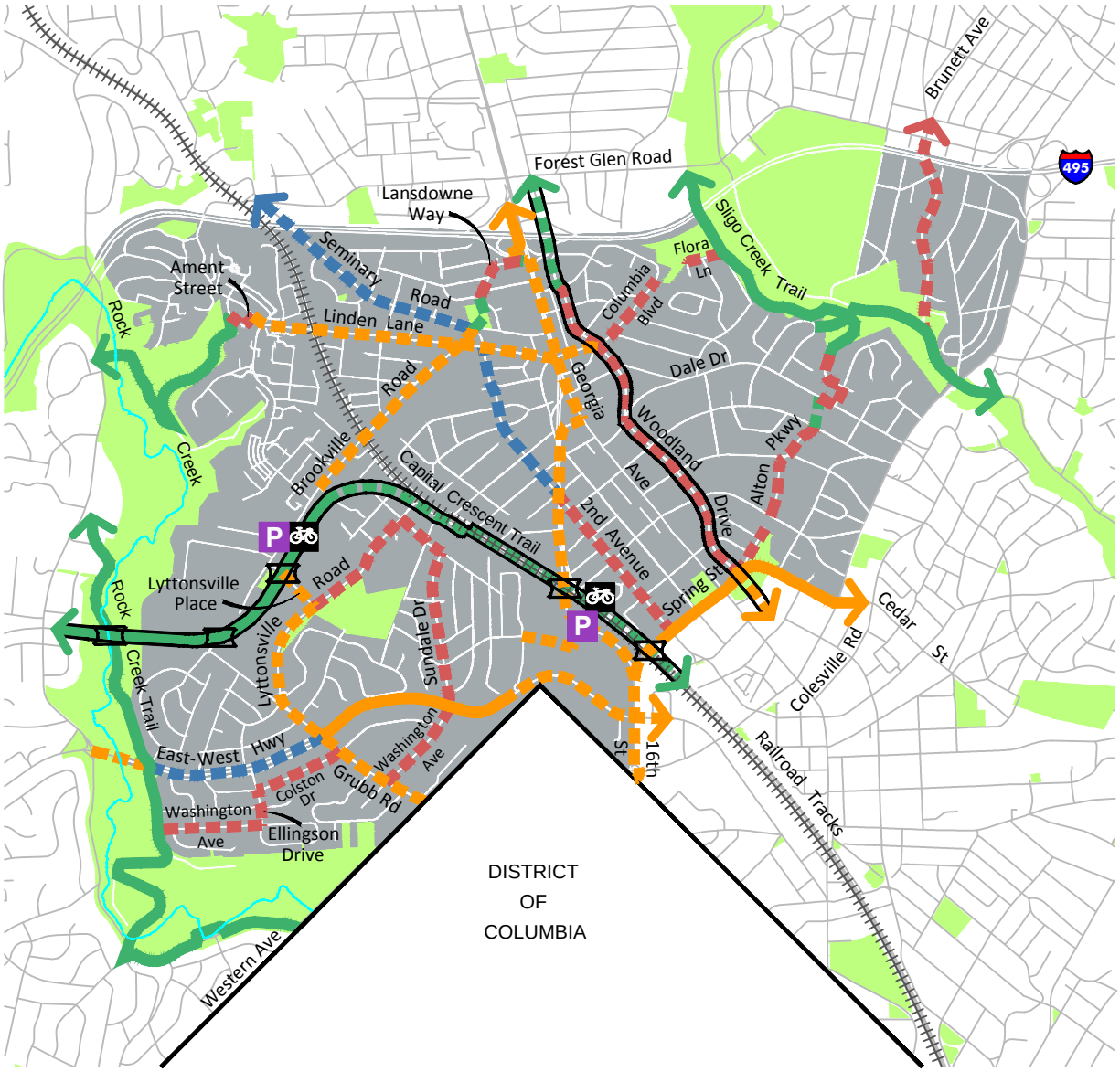
Silver Spring - Takoma Park East

Bikeway	From	To	Facility Type	Bikeway Type
Division St	Greenwood Ave	Flower Ave	Shared Road	Neighborhood Greenway
Erskine St	New Hampshire Ave	Prince George's County	Shared Road	Neighborhood Greenway
Ethan Allen Ave	Carroll Ave	New Hampshire Ave	Separated Bikeway	Sidepath (North Side)
Flower Ave	Wabash Ave	Carroll Ave	Shared Road	Priority Shared Lane Markings
	Carroll Ave	Sligo Creek Pkwy	Shared Road	Neighborhood Greenway
Franklin Ave	Worth Ave	University Blvd	Separated Bikeway	Sidepath (South Side)
	University Blvd	End of Franklin Ave	Shared Road	Neighborhood Greenway
Gist Ave	Silver Spring CBD Policy Area	Ray Dr	Shared Road	Neighborhood Greenway
Grant Ave	Piney Branch Rd	Carroll Ave	Shared Road	Neighborhood Greenway
Greenwood Ave	Wabash Ave	Kennebec Ave	Shared Road	Neighborhood Greenway
	Kennebec Ave	Division St	Shared Road	Neighborhood Greenway
Haddon Dr	Long Branch Trail	Houston Ave	Shared Road	Neighborhood Greenway
Hamilton Ave	Sligo Creek Pkwy	Franklin Ave	Shared Road	Neighborhood Greenway
Indian Spring Dr	Caroline Ave	University Blvd	Shared Road	Neighborhood Greenway
Kennebec Ave	Sligo Creek Pkwy	Long Branch Trail	Shared Road	Neighborhood Greenway
Long Branch Pkwy	Maplewood Ave	Carroll Ave	Shared Road	Neighborhood Greenway
Long Branch Trail	Houston Ave	Long Branch Pkwy	Trail	Stream Valley Park Trail
Maple Ave	Kennebec Ave	Hilltop Rd	Shared Road	Neighborhood Greenway
	Hilltop Rd	Philadelphia Ave	Separated Bikeway	Separated Bike Lanes (One-Way, Both Sides)
	Philadelphia Ave	District of Columbia	Shared Road	Neighborhood Greenway
Maplewood Ave / Trail	Maple Ave	Flower Ave	Shared Road	Neighborhood Greenway
	Flower Ave	Greenwood Ave	Trail	Off-Street Trail
	Greenwood Ave	Garland Ave	Shared Road	Neighborhood Greenway
New Hampshire Ave	I-495	Prince George's County	Separated Bikeway	Sidepath (Both Sides)
New Hampshire Ave	Erskine St	Ethan Allen Ave	Separated Bikeway	Sidepath (Both Sides)
	Ethan Allen Ave	District of Columbia	Separated Bikeway	Separated Bike Lanes (Two-Way, West Side)
Oakview Dr	Northwest Branch Trail	New Hampshire Ave	Shared Road	Neighborhood Greenway
Philadelpha Ave	Baltimore Ave	Piney Branch Rd	Separated Bikeway	Sidepath (South Side)
Philadelphia Ave	Holly Ave	Maple Ave	Separated Bikeway	Sidepath (North Side)
Philadelphia Ave	Cedar Ave	Maple Ave	Shared Road	Neighborhood Greenway
Piney Branch Rd	Philadelphia Ave	Sligo Creek Pkwy	Separated Bikeway	Sidepath (South Side)
Piney Branch Rd	Carroll Ave	Prince George's County	Separated Bikeway	Sidepath (North Side)
Plymouth St	Sudbury Rd	Walden St	Shared Road	Neighborhood Greenway

Silver Spring - Takoma Park East

Bikeway	From	To	Facility Type	Bikeway Type
Ray Dr	Gist Ave	Piney Branch Rd	Shared Road	Neighborhood Greenway
Silver Spring Ave	Silver Spring CBD Policy Area	Grove St	Shared Road	Priority Shared Lane Markings
	Grove St	Piney Branch Rd	Shared Road	Neighborhood Greenway
Sligo Creek Trail	Colesville Rd	Prince George's County	Trail	Stream Valley Park Trail
Spring St	Colesville Rd	Ellsworth Dr	Separated Bikeway	Separated Bike Lanes (One-Way, Both Sides)
Sudbury Rd	Franklin Ave	Plymouth St	Shared Road	Neighborhood Greenway
Takoma Ave	Gist Ave	Albany Ave	Shared Road	Neighborhood Greenway
University Blvd	I-495	Langley Dr	Separated Bikeway	Sidepath (West Side)
Wayne Ave	Cedar St	Whitney St	Separated Bikeway	Sidepath (North Side)
Worth Ave	Sligo Creek Pkwy	Franklin Ave	Shared Road	Neighborhood Greenway

Silver Spring/Takoma Park (West Side)



Note: White lines represent non-master planned bikeways

Silver Spring - Takoma Park West

Street	From	To	Facility Type	Bikeway Type
Capital Crescent Trail Breezeway				
Capital Crescent Trail	Rock Creek Trail	Spring St	Trail	Off-Street Trail
Georgia Ave South Breezeway				
Woodland Dr	I-495 Bridge (East Side)	Spring St	Shared Road	Neighborhood Greenway
US 29 Corridor West Bikeway				
Brunett Ave	I-495	Sligo Creek Pkwy	Shared Road	Neighborhood Greenway
Edgevale Rd	Sligo Creek Trail Connector	Harvey Rd	Shared Road	Neighborhood Greenway
Harvey Rd	Edgevale Rd	Dale Dr	Shared Road	Neighborhood Greenway
Dale Dr	Harvey Rd	Alton Pkwy	Shared Road	Neighborhood Greenway
Alton Pkwy	Dale Dr	Spring St	Shared Road	Neighborhood Greenway
Silver Spring - Glenmont West Neighborhood Greenway				
I-495 Bridge (West Side)	Forest Glen Rd	I-495	Separated Bikeway	Sidepath (West Side)
Lansdowne Way	Georgia Ave	2nd Ave	Shared Road	Neighborhood Greenway
2nd Ave	Lansdowne Way	Riley Pl	Shared Road	Neighborhood Greenway
	Riley Rd	Seminary Rd	Trail	Off-Street Trail
	Seminary Rd	16th St	Striped Bikeway	Conventional Bike Lanes
	16th St	Spring St	Shared Road	Neighborhood Greenway
16th St	Georgia Ave	Spring St	Separated Bikeway	Separated Bike Lanes (Two-Way, East Side)
Ament St	Trail	Linden La	Shared Road	Neighborhood Greenway
Brookville Rd	Stewart La	Seminary Rd	Separated Bikeway	Sidepath (South Side)
Colston Dr	Ellingson Dr	Grubb Rd	Shared Road	Neighborhood Greenway
Columbia Blvd	Seminary Rd	Georgia Ave	Separated Bikeway	Separated Bike Lanes (One-Way, Both Sides)
Columbia Blvd	Woodland Dr	Flora La	Shared Road	Neighborhood Greenway
Dale Dr	Georgia Ave	Woodland Dr	Separated Bikeway	Separated Bike Lanes (One-Way, Both Sides)
East West Hwy	Rock Creek	Grubb Rd	Striped Bikeway	Contra-Flow Bike Lane
	Grubb Rd	16th St	Separated Bikeway	Sidepath (North Side)
Ellingson Dr	Washington Ave	Colston Dr	Shared Road	Neighborhood Greenway
Flora La	Flora Ter	Sligo Creek Trail Connector	Shared Road	Neighborhood Greenway
Georgia Ave	Lansdowne Way	16th St	Separated Bikeway	Separated Bike Lanes (Two-Way, West Side)
Grubb Rd	Lyttonsville Rd	District of Columbia	Separated Bikeway	Separated Bike Lanes (One-Way, Both Sides)
I-495 Bridge (East Side)	Forest Glen Rd	Woodland Dr	Trail	Off-Street Trail
Linden La	Ament St	2nd Ave	Separated Bikeway	Sidepath (South Side)

Silver Spring - Takoma Park West

Street	From	To	Facility Type	Bikeway Type
Lyttonsville Pl	Brookville Rd	Lyttonsville Rd	Separated Bikeway	Separated Bike Lanes (Two-Way, East Side)
Lyttonsville Rd	Lyttonsville Pl	Grubb Rd	Separated Bikeway	Separated Bike Lanes (One-Way, Both Sides)
Lyttonsville Rd	Lyttonsville Pl	Michigan Ave	Shared Road	Neighborhood Greenway
Michigan Ave	Lyttonsville Pl	Pennsylvania Ave	Shared Road	Neighborhood Greenway
Pennsylvania Ave	Michigan Ave	Lanier Dr	Shared Road	Neighborhood Greenway
Porter Dr	Lanier Dr	Sundale Dr	Shared Road	Neighborhood Greenway
Rock Creek Trail	Rock Creek	Western Ave	Trail	Stream Valley Park Trail
Seminary Rd	I-495	Brookville Rd	Striped Bikeway	Conventional Bike Lanes
	Linden La	Seminary Pl	Striped Bikeway	Conventional Bike Lanes
	2nd Ave	Columbia Blvd	Separated Bikeway	Separated Bike Lanes (One-Way, Both Sides)
Sligo Creek Trail	I-495	Colesville Rd	Trail	Stream Valley Park Trail
Spring St	16th St	Colesville Rd	Separated Bikeway	Separated Bike Lanes (One-Way, Both Sides)
Summit Hills Bikeway	Spencer Rd	16th St	Separated Bikeway	Sidepath or Separated Bike Lanes
Sundale Dr	Porter Dr	East West Hwy	Shared Road	Neighborhood Greenway
Trail	Rock Creek Trail	Ament St	Trail	Stream Valley Park Trail
Washington Ave	Meadowbrook La	Ellingson Dr	Shared Road	Neighborhood Greenway
Washington Ave	East West Hwy	Grubb Rd	Shared Road	Neighborhood Greenway

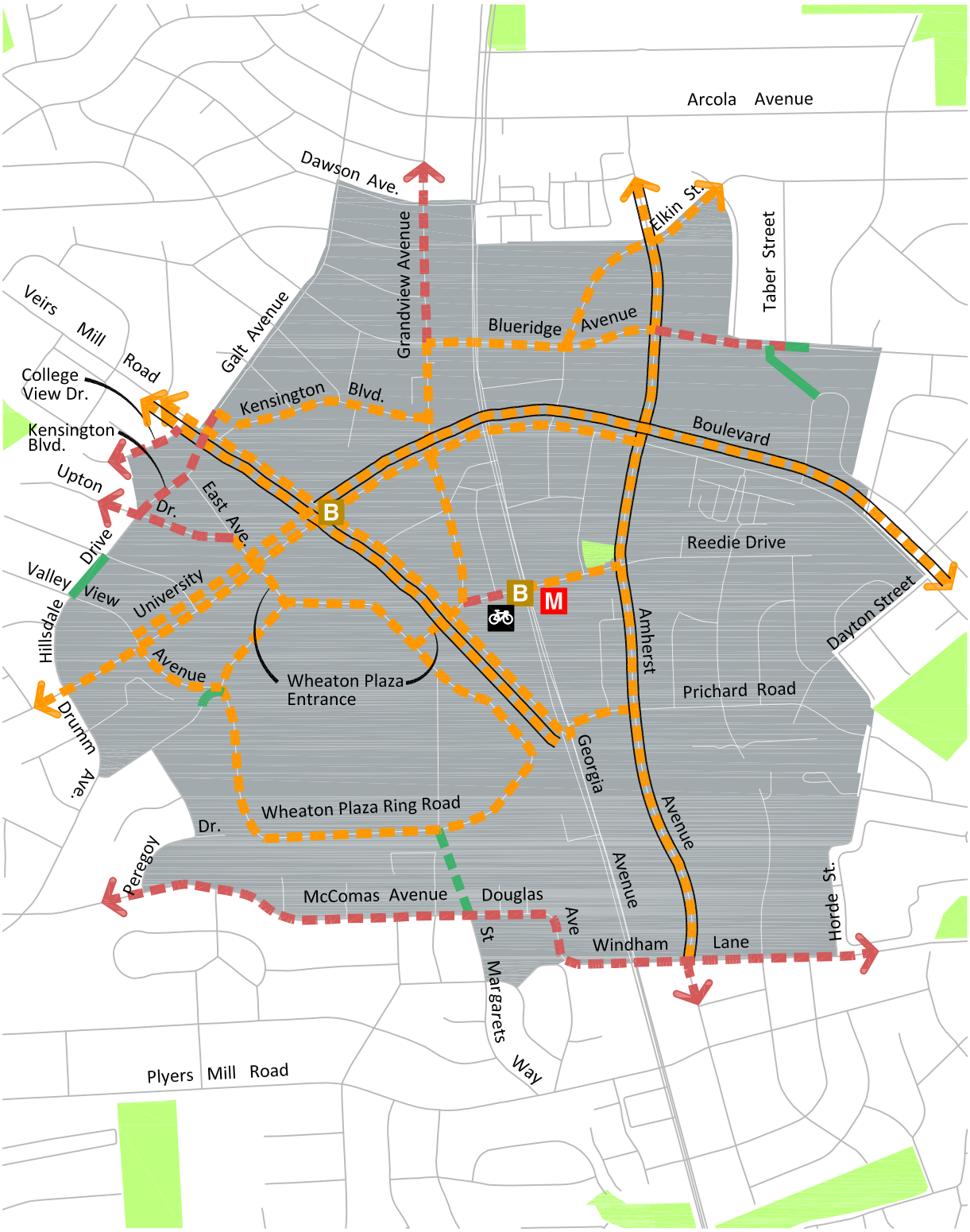
Takoma/Langley

Note: White lines represent non-master planned bikeways

Takoma/Langley

Street	From	To	Facility Type	Bikeway Type
University Blvd Breezeway				
University Blvd	Carroll Ave	Prince George's County	Separated Bikeway	Separated Bike Lanes (Two-Way, East Side)
Anne St	University Blvd	Glenside Dr	Shared Road	Neighborhood Greenway
Carroll Ave	University Blvd	Merrimac Dr	Separated Bikeway	Separated Bike Lanes (One-Way, Both Sides)
	Merrimac Dr	Long Branch Pkwy	Striped Bikeway	Conventional Bike Lanes
Erskine St	New Hampshire Ave	Prince George's County	Shared Road	Neighborhood Greenway
Glenside Dr	Carroll Ave	New Hampshire Ave	Shared Road	Neighborhood Greenway
Holton La	Wildwood Dr	New Hampshire Ave	Shared Road	Neighborhood Greenway
	New Hampshire Ave	Prince George's County	Separated Bikeway	Separated Bike Lanes (One-Way, Both Sides)
New Hampshire Ave	University Blvd	Erskine St	Separated Bikeway	Separated Bike Lanes (Two-Way, Both Sides)
	Erskine St	Sligo Creek Pkwy	Separated Bikeway	Sidepath (Both Sides)
Sligo Creek Trail	Glengarry Pl	Prince George's County	Trail	Stream Valley Park Trails
Street B-2	University Blvd	Holton La	Separated Bikeway	Separated Bike Lanes (One-Way, Both Sides)
University Blvd	Carroll Ave	Prince George's County	Separated Bikeway	Separated Bike Lanes (Two-Way, West Side)
Wildwood Dr	Carroll Ave	Glenside Dr	Shared Road	Neighborhood Greenway

Wheaton CBD



Note: White lines represent non-master planned bikeways

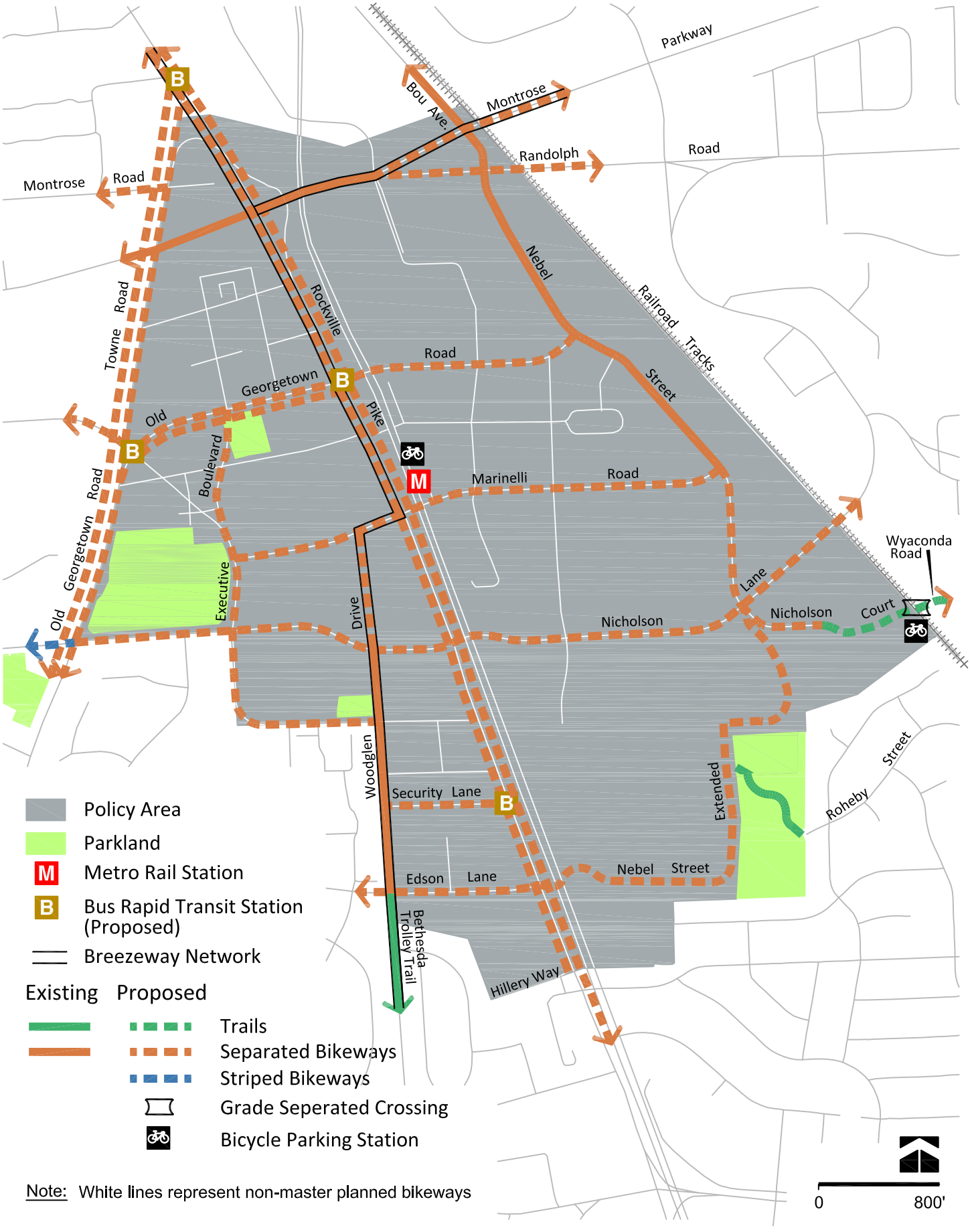
Wheaton CBD

Bikeway	From	To	Facility Type	Bikeway Type
Georgia Ave South Breezeway				
Amherst Ave	Elkin St	Windham La	Separated Bikeway	Separated Bike Lanes (One-Way, Both Sides)
Veirs Mill Rd Breezeway				
Veirs Mill Rd	College View Dr	Georgia Ave	Separated Bikeway	Separated Bike Lanes (Two-Way, South Side)
University Blvd Breezeway				
University Blvd	Veirs Mill Rd	Amherst Ave	Separated Bikeway	Separated Bike Lanes (Two-Way, North Side)
University Blvd	Amherst Ave	Reedie Dr	Separated Bikeway	Sidepath (East Side)
Veirs Mill Rd (North Side)				
Veirs Mill Rd	Galt Ave	Georgia Ave	Separated Bikeway	Separated Bike Lanes (Two-Way, North Side)
Blueridge Ave	Grandview Ave	Amherst Ave	Separated Bikeway	Separated Bike Lanes (One-Way, Both Sides)
Blueridge Ave Ext	Amherst Ave	Taber St	Shared Road	Neighborhood Greenway
College View Dr	Pleasant View LP Trail	Veirs Mill Rd	Shared Road	Neighborhood Greenway
Douglas Ave	St Margarets Way	Windham La	Shared Road	Neighborhood Greenway
East Ave	Upton Dr	University Blvd	Separated Bikeway	Separated Bike Lanes (Two-Way, West Side)
Elkin St	Bucknell Dr	Blueridge Ave	Separated Bikeway	Sidepath (South Side)
Franwell Ave	Tabor St	Bucknell Dr	Separated Bikeway	Sidepath (Side TBD)
Galt Ave	East Ave	Kensington Blvd	Shared Road	Neighborhood Greenway
Grandview Ave	Dawson Ave	Blueridge Ave	Shared Road	Neighborhood Greenway
	Blueridge Ave	Reedie Dr	Separated Bikeway	Separated Bike Lanes (One-Way, Both Sides)
Kensington Blvd	Galt Ave	Grandview Ave	Separated Bikeway	Sidepath (South Side)
Kensington Blvd	Upton Dr	East Ave	Shared Road	Neighborhood Greenway
McComas Ave	Peregoy Dr	St Margarets Way	Shared Road	Neighborhood Greenway
Neighborhood Connector	Blueridge Ave	Taber St	Trail	Neighborhood Connector
Neighborhood Connector	Blueridge Ave	Westchester Dr	Trail	Neighborhood Connector
Neighborhood Connector	Faulkner Pl	Wheaton Plaza Ringroad	Trail	Neighborhood Connector
Neighborhood Connector	Hillsdale Dr	Midvale Rd	Trail	Neighborhood Connector
Neighborhood Connector	Upton Dr	Kensington Blv	Trail	Neighborhood Connector
Neighborhood Connector	Wheaton Plaza Ring Road	Douglas Ave	Trail	Neighborhood Connector
Prichard Rd	Georgia Ave	Amherst Ave	Separated Bikeway	Separated Bike Lanes (One-Way, Both Sides)
Reedie Dr	Veirs Mill Rd	Georgia Ave	Shared Road	Shared Street
Reedie Dr	Georgia Ave	Amherst Ave	Separated Bikeway	Separated Bike Lanes (Two-Way, South Side)
	Drumm Ave	Valley View Ave	Separated Bikeway	Sidepath (South Side)

Wheaton CBD

Bikeway	From	To	Facility Type	Bikeway Type
University Blvd	Valley View Ave	Amherst Ave	Separated Bikeway	Separated Bike Lanes (Two-Way, Both Sides)
	Amherst Ave	Dayton St	Separated Bikeway	Sidepath (East Side)
Upton Dr	Kensington-Wheaton Policy Area	East Ave	Shared Road	Neighborhood Greenway
Valley View Ave	University Blvd	Wheaton Plaza Ring Rd	Separated Bikeway	Sidepath (South Side)
Wheaton Plaza Entrance	University Blvd	Wheaton Plaza Ring Rd	Separated Bikeway	Separated Bike Lanes (Two-Way, West Side)
Wheaton Plaza Entrance	Veirs Mill Rd	Wheaton Plaza Ring Rd	Separated Bikeway	Separated Bike Lanes (Side TBD)
Wheaton Plaza Ring Road	Wheaton Plaza Ring Road	Wheaton Plaza Ring Road	Separated Bikeway	Separated Bike Lanes, One-Way, Both Sides
Windham La	Douglas Ave	Horde St	Shared Road	Neighborhood Greenway

White Flint



Note: White lines represent non-master planned bikeways

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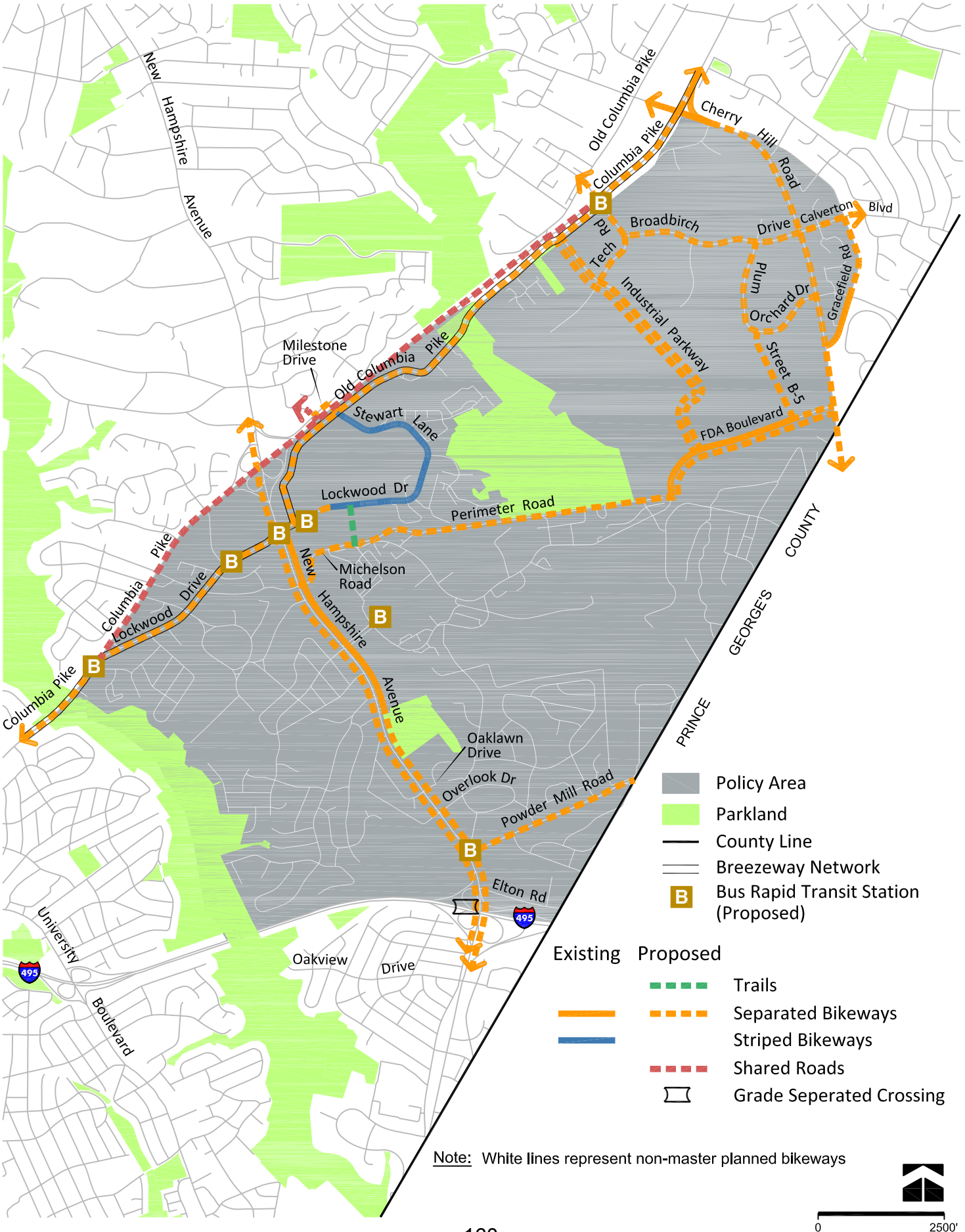
White Flint

Bikeway	From	To	Facility Type	Bikeway Type
MD 355 South Breezeway				
Rockville Pike	Towne Rd	Marinelli Rd	Separated Bikeway	Separated Bike Lanes (Two-Way, West Side)
Marinelli Rd	Rockville Pike	Woodglen Dr	Separated Bikeway	Separated Bike Lanes (Side TBD)
Woodglen Dr	Marinelli Rd	Edson La	Separated Bikeway	Separated Bike Lanes (Two-Way, West Side)
Montrose Pkwy Breezeway				
Montrose Pkwy	Towne Rd	Railroad Tracks	Separated Bikeway	Sidepath (North Side)
Randolph Rd Breezeway				
Randolph Rd	Montrose Pkwy	Railroad Tracks	Separated Bikeway	Sidepath (South Side)
Bike / Ped Bridge	Nicholson Ct	Wyaconda Rd	Trail	Off-Street Trail
Bou Ave	Montrose Pkwy	Randolph Rd	Separated Bikeway	Sidepath (East Side)
Edson La	Woodglen Dr	Rockville Pike	Separated Bikeway	Separated Bike Lanes (One-Way, Both Sides)
Executive Blvd	Old Georgetown Rd	Woodglen Dr	Separated Bikeway	Separated Bike Lanes (Side TBD)
Marinelli Rd	Executive Blvd	Nebel St	Separated Bikeway	Separated Bike Lanes (Side TBD)
Nebel St	Randolph Rd	Nicholson La	Separated Bikeway	Separated Bike Lanes (One-Way, Both Sides)
Nebel St Ext	Nicholson La	Rockville Pike	Separated Bikeway	Separated Bike Lanes (One-Way, Both Sides)
Neighborhood Connector	Rokeby Way	White Flint Mall	Trail	Neighborhood Connector
Nicholson Ct	Nebel St Ext	Bike / Ped Bridge	Separated Bikeway	Separated Bike Lanes (One-Way, Both Sides)
Nicholson La	Old Georgetown Rd	Nebel St	Separated Bikeway	Separated Bike Lanes (One-Way, Both Sides)
	Nebel St	Railroad Tracks	Separated Bikeway	Sidepath (Side TBD)
Old Georgetown Rd	Nebel St	Rockville Pike	Separated Bikeway	Separated Bike Lanes (Two-Way, South Side)
	Rockville Pike	Towne Rd	Separated Bikeway	Separated Bike Lanes (Two-Way, Both Sides)
	Towne Rd	Nicholson La	Separated Bikeway	Sidepath (Both Sides)
Rockville Pike	Towne Rd	Marinelli Rd	Separated Bikeway	Separated Bike Lanes (Two-Way, East Side)
	Marinelli Rd	North Bethesda Policy Area	Separated Bikeway	Separated Bike Lanes (Two-Way, Both Sides)
Security La	Rockville Pike	Woodglen Dr	Separated Bikeway	Separated Bike Lanes (One-Way, Both Sides)
Towne Rd	Rockville Pike	Old Georgetown Rd	Separated Bikeway	Separated Bike Lanes (Two-Way, East Side)

White Oak


New Hampshire Avenue
Old Columbia Pike
Columbia Pike
Cherry Hill Road
Broadbirch Drive
Calverton Blvd
Tech Rd
Industrial Parkway
Plum Orchard Dr
Gracefield Rd
Street B-5
FDA Boulevard
Milestone Drive
Old Columbia Pike
Stewart Lane
Lockwood Dr
Perimeter Road
Columbia Pike
Lockwood Drive
New Hampshire Avenue
Michelson Road
Columbia Pike
Oaklawn Drive
Overlook Dr
Powder Mill Road
Elton Rd
University Boulevard
Oakview Drive
PRINCE GEORGE'S COUNTY
Policy Area
Parkland
County Line
Breezeway Network
Bus Rapid Transit Station (Proposed)
Existing
Proposed
Trails
Separated Bikeways
Striped Bikeways
Shared Roads
Grade Seperated Crossing
Note: White lines represent non-master planned bikeways
0
2500'

White Oak

Bikeway	From	To	Facility Type	Bikeway Type
US 29 Corridor Breezeway				
Old Columbia Pike	Tech Rd	White Oak Shopping Center	Separated Bikeway	Sidepath (East Side)
Old Columbia Pike	White Oak Shopping Center	Lockwood Dr	Separated Bikeway	Separated Bike Lanes (Two-Way, East Side)
Lockwood Dr	New Hampshire Ave	Columbia Pike	Separated Bikeway	Sidepath (East Side)
Columbia Pike*	Lockwood Dr	Northwest Branch	Separated Bikeway	Sidepath (East Side)
Broadbirch Dr	Tech Rd	Cherry Hill Rd	Separated Bikeway	Separated Bike Lanes (Two-Way, South Side)
Calverton Blvd	Cherry Hill Rd	Gracefield Rd	Separated Bikeway	Sidepath (South Side)
Cherry Hill Rd	Columbia Pike	Prince George's County	Separated Bikeway	Separated Bike Lanes (Two-Way, South Side)
Columbia Pike	Tech Rd	Rachel Carson Greenway	Separated Bikeway	Sidepath (West Side)
FDA Blvd	Cherry Hill Rd	FDA Gate	Separated Bikeway	Sidepath (North Side)
Gracefield Rd	Calverton Blvd	Cherry Hill Rd	Separated Bikeway	Sidepath (West Side)
Industrial Pkwy	Columbia Pike	FDA Blvd	Separated Bikeway	Separated Bike Lanes (One-Way, Both Sides)
Lockwood Dr	Stewart La	White Oak Park Drwy	Striped Bikeway	Conventional Bike Lanes
	White Oak Park Drwy	New Hampshire Ave	Separated Bikeway	Sidepath (East Side)
Michelson Rd	New Hampshire Ave	Perimeter Rd	Separated Bikeway	Sidepath (Side TBD)
New Hampshire Ave	Columbia Pike	Lockwood Dr	Separated Bikeway	Sidepath (West Side)
	Lockwood Dr	Michelson Rd	Separated Bikeway	Separated Bike Lanes (Two-Way, Both Sides)
	Michelson Rd	Oaklawn Dr	Separated Bikeway	Sidepath (Both Sides)
	Oaklawn Dr	Overlook Dr	Separated Bikeway	Sidepath (Both Sides)
	Overlook Dr	Powder Mill Rd	Separated Bikeway	Separated Bike Lanes (Two-Way, Both Sides)
	Powder Mill Rd	Elton Rd	Separated Bikeway	Separated Bike Lanes (Two-Way, Both Sides)
	Elton Rd	I-495	Separated Bikeway	Sidepath (Both Sides)
Perimeter Rd**	Michelson Rd	FDA Blvd	Trail	Off-Street Trail
Plum Orchard Dr	Broadbirch Dr	Cherry Hill Rd	Separated Bikeway	Separated Bike Lanes (One-Way, Both Sides)
Powder Mill Rd	New Hampshire Ave	Prince George's County	Separated Bikeway	Sidepath (North Side)
Stewart La	Columbia Pike	Old Columbia Pike	Separated Bikeway	Sidepath (Side TBD)
	Old Columbia Pike	Lockwood Dr	Striped Bikeway	Conventional Bike Lanes
Street B-5	Plum Orchard Dr	FDA Blvd	Separated Bikeway	Separated Bike Lanes (Two-Way, North Side)

White Oak

Bikeway	From	To	Facility Type	Bikeway Type
Tech Rd	Columbia Pike	Industrial Pkwy	Separated Bikeway	Separated Bike Lanes (One-Way, Both Sides)
White Oak - FDA Connector	Lockwood Dr	FDA	Trail	Off-Street Trail

* Appropriate measures must be taken to minimize impacts to the former WSSC buildings. Any changes to the road cross section may require elevating the roadway out of the floodplain and reconstructing the stream channel upstream and downstream.
** Bikeway to be implemented along Perimeter Rd if approved by the federal government and / or through redevelopment of the adjacent multifamily dwelling units, whichever comes first.

breezeway network

The Breezeway Network is a high-quality, regionally-oriented subset of Montgomery County's low-stress bicycling system that will be attractive to bicyclists of all ages and abilities. It will be available to pedestrians and will enable faster and slower users to travel along the same corridor without compromising each other's travel safety, comfort or travel speed. The network will consist of direct and efficient routes between major activity centers and minimize delays and detours. Similar networks have been in use for more than a decade in Europe, including the bicycling superhighways of Denmark, the Netherlands, Dubai and London (see Figure X).

Figure X: Visualization of Cycle Superhighway in London (London Cycling Design Standards, 2014)

network characteristics

The Breezeway corridors are the arterials of the bikeway network in that they are envisioned to carry a large amount of through traffic. While many trips on the Breezeway Network will be for longer, faster trips to central business districts (CBDs), transit stations, activity hubs and job centers, these corridors will also be used for shorter and slower trips. The Breezeway Network will be comprised of trails, sidepaths, separated bike lanes and neighborhood greenways. Local bikeways, including neighborhood greenways, sidepaths, bike lanes and low-volume / low-speed streets, will funnel local bicycle traffic to the Breezeways.

Breezeways are categorized as one of five types:

1. Rail and utility corridors such as the Capital Crescent Trail, which include grade separated crossings of major roads.
2. Along freeways, such as the Intercounty Connector Trail.
3. Along newer major highways, such as Great Seneca Highway, which are characterized by wider rights-of-way and greater spacing between intersections and driveways.
4. Along older major highways, such as Veirs Mill Road and University Blvd, which could become Breezeways over time with a gradual consolidation of driveways and intersections.
5. Neighborhood greenways paralleling older major highways, such as Woodland Drive and Amherst Avenue between Downtown Silver Spring and Wheaton that provide direct access to destinations, minimize the number of turns and stops, and facilitate safe and direct crossings of major roadways.

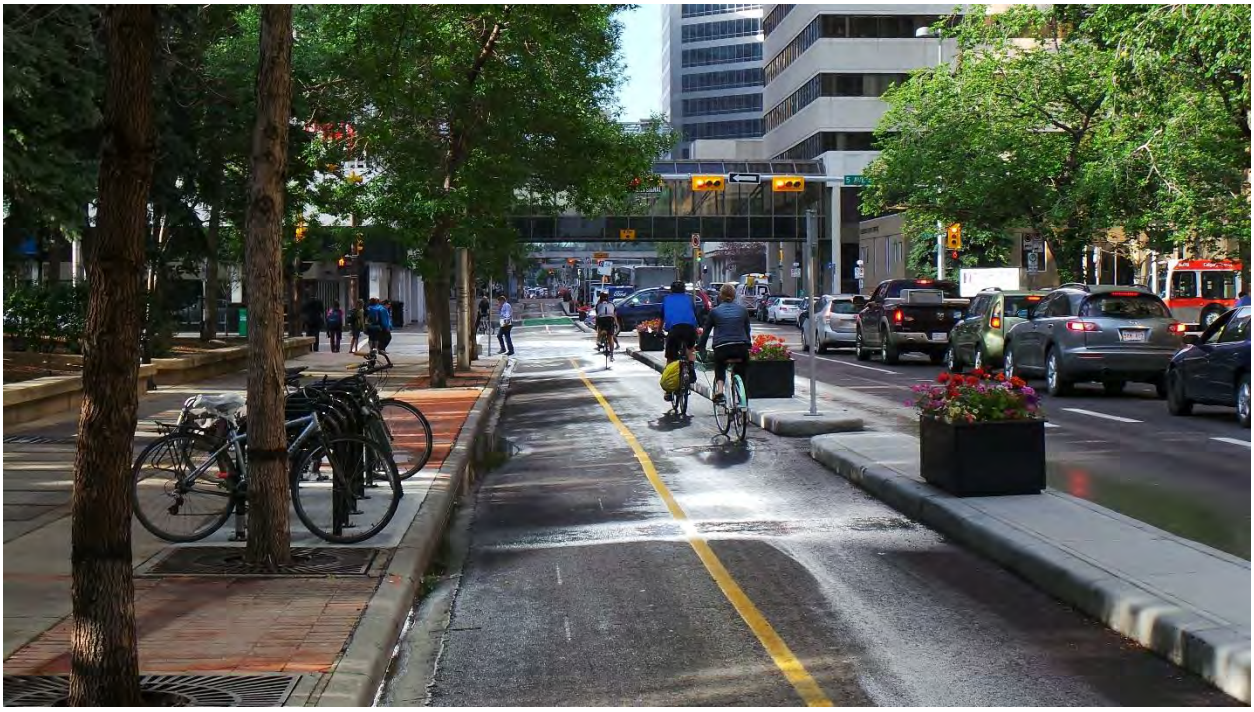
bikeway characteristics

The Breezeway Network will have the following characteristics:

Design Speed: The Breezeway Network will have a design speed of 20 miles per hour (mph) in low-activity / suburban and rural areas and 12 mph in high-activity / urban areas.

Separation from Traffic: Fixed, continuous separation from traffic, such as curbs or concrete barriers, will increase the comfort of the Breezeway Network. Sidepaths or trails that run parallel to a roadway should be separated from the roadway by at least 5 feet. Along high-speed roadways with speed limits of 35 mph or greater, separation greater than 5 feet is desirable to reduce the stress from riding close to traffic.

Separation Between Bicycling and Walking: Separation between pedestrians and bicyclists will increase comfort for users and allow faster users to travel with minimal delay, especially in areas with higher use. On trails and sidepaths in suburban areas, separate space for pedestrians and bicyclists can be adjacent to each other, though a buffer between them is preferred. In urban areas where separation is provided using sidewalks and separated bike lanes, busy areas may need to provide more pedestrian space with widened waiting areas/pedestrian refuge islands at intersections, wider sidewalks and dedicated space for those waiting at bus stops.



Separated Bike Lanes in Calgary, Alberta, Canada (Source: Calgary Bike Program)

Breezeways will feature adequate width for side-by-side bicyclist travel and passing, as well as adequate buffers from motor vehicle traffic.

- Trails and Sidepaths: the minimum bikeway width is 11 feet and the minimum pedestrian width is 5 feet. In areas with high pedestrian demand, the preferred pedestrian width is 8 feet or more in urban and commercial areas and around transit facilities.

- Two-Way Separated Bike Lanes: the minimum bikeway width is 11 feet, excluding the gutter pan.
- One-Way Separated Bike Lanes: the minimum bikeway width is 8 feet, excluding the gutter pan.

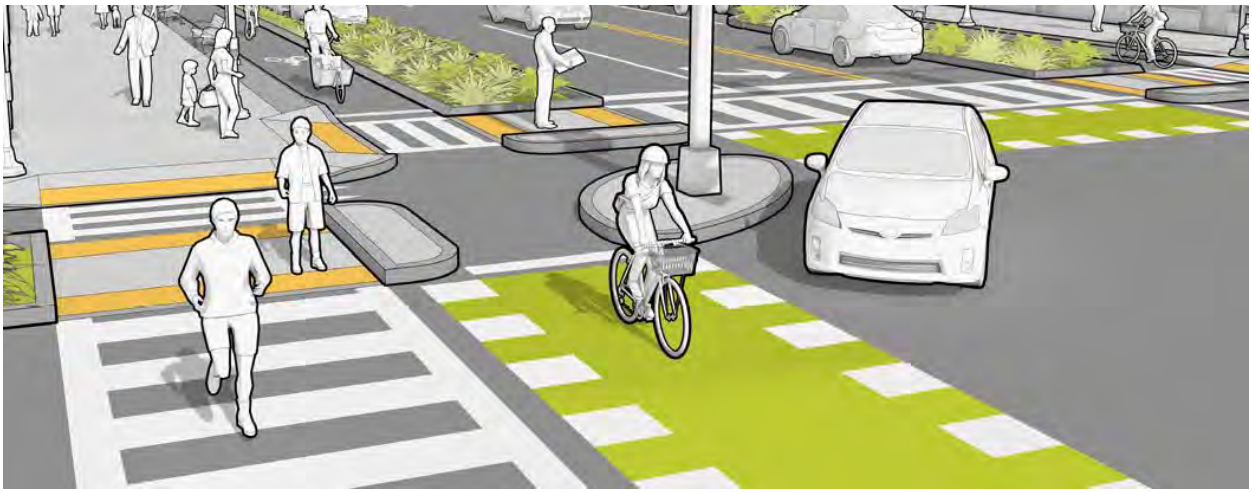
Figure X: Minneapolis' Midtown Greenway delineates separate spaces for bicyclists and pedestrians.

Minimal Intersection Delay: Breezeways should feature intuitive and safe intersection and driveway crossings that minimize delay for walking and bicycling. The crossings should be developed to prioritize non-motorized travel by making it easier and safer to travel through intersections. Breezeway crossings will include elements that both separate bicycle movements from motor vehicles and make bicyclists and pedestrians more visible to other road users. Crossings should:

- Slow motor vehicle traffic.
- Improve bicyclist and pedestrian visibility.
- Reduce bicyclist and pedestrian exposure.
- Reduce or eliminate conflicts.

Treatments to facilitate these crossings may include:

- **Protected intersections** to reduce the number of potential conflict points between bicyclists and motor vehicles, making these conflicts easier to mitigate.



- **Colored pavement** through intersections that delineates bicyclist right-of-way and improves bicyclist visibility.

Green pavement is used on the Woodglen Drive separated bike lanes to delineate the bikeway.

- **Bike signals** that reduce conflicts by allowing bicycle and motor vehicle intersection movements to be separated. These signals have interim approval from the Federal Highway Administration (FHWA) and are in use in many jurisdictions around the country.

- **Leading bicycle intervals** at traffic signals to reduce conflicts by allowing bicyclists to enter the intersection ahead of right-turning vehicles, establishing right-of-way and improving motor vehicle yielding. This lead time is provided simultaneously with leading pedestrian intervals.
- **Grade separation**, including underpasses and overpasses, that eliminate potential conflicts with automobiles and minimize bicyclist delay by allowing bicyclists to cross over or under motor vehicle traffic without stopping.

Rock Creek Trail Bridge over Veirs Mill Road

- **Narrower curb radii** to improve bicyclist visibility by requiring motorists to slow down while turning, widening their field of vision and making it more likely they will see bicyclists proceeding through the intersection.
- **Driveway consolidation** that reduces conflicts between motor vehicles and bicyclists by limiting the number of conflict points a bicyclist must traverse.
- **Raised crosswalks** to slow driver speeds when crossing the Breezeway from a side street. When motor vehicles travel slower they have a wider field of vision and are more likely to see bicyclists.

Pavement Surface: Oftentimes, the reason a bicyclist may choose to ride in the roadway instead of on a parallel sidepath is to take advantage of the roadway's superior pavement quality. For this reason, Breezeways will feature high-quality construction, surface materials and maintenance practices that maximize surface smoothness and pavement life, minimizing potential for pavement cracking and buckling.

Specific construction requirements should be adapted to each location in a manner that's appropriate to local conditions and anticipated wear-and-tear. If maintenance, service or emergency vehicles will need to access the Breezeway, construction methods and materials should take that into account. During Breezeway design, pavement technologies to be investigated include, but are not limited to:

- Fine-grained asphalt and porous asphalt surface courses to reduce road noise.
- Thickened pavement courses to accommodate vehicular loading where necessary and lengthen pavement life.
- Appropriate slope for drainage.
- Special treatments for tree roots.
- Thickened aggregate base courses to accommodate vehicular loading where necessary and lengthen pavement life.
- High-modulus pavements to reduce pavement thickness.
- Higher asphalt content in asphalt base courses to increase durability and fatigue resistance.
- Structural enhancements for poor pavement subgrades to accommodate vehicular loading and lengthen pavement life.
- "Perpetual pavement" technologies to lengthen pavement life.
- Porous pavement to reduce ice-buildup and water spray from tires.

Breezeways should feature construction practices designed to result in high-quality pavement installation, including improved subgrade preparation and testing, installation of pavements with appropriate lift thicknesses, rigorous asphalt temperature monitoring and thorough compaction for uniform density and smoothness. Within the bikeway network, Breezeways should be prioritized for maintenance similar to priority arterials in the roadway network. **This priority applies to snow removal, resurfacing, sweeping and other general maintenance activities.**

Street Infrastructure: In addition to separation from motor vehicle traffic, Breezeways should be free of obstructions, such as utility poles, trees or sign posts. Breezeways should also have corridor-long pedestrian-scale lighting. Lighting should provide continuous illumination along both the travelway and on immediate wayside areas. In residential areas or sensitive habitat areas, specialized lighting or screens may be required to avoid adverse impacts.

Branding and Wayfinding: Unique branding improves Breezeway Network legibility and helps the network develop its own identity as a high-quality transportation option. There are many examples of how this branding might be handled, including using:

- Signage that distinguishes the Breezeway from the rest of the network.
- Pavement markings.
- Different color surface treatment.

Transitions: Transitions between Breezeways and standard bicycle facilities should be direct, seamless and intuitive. See Appendix B for transitions between separated bike lanes and other bicycle facilities.

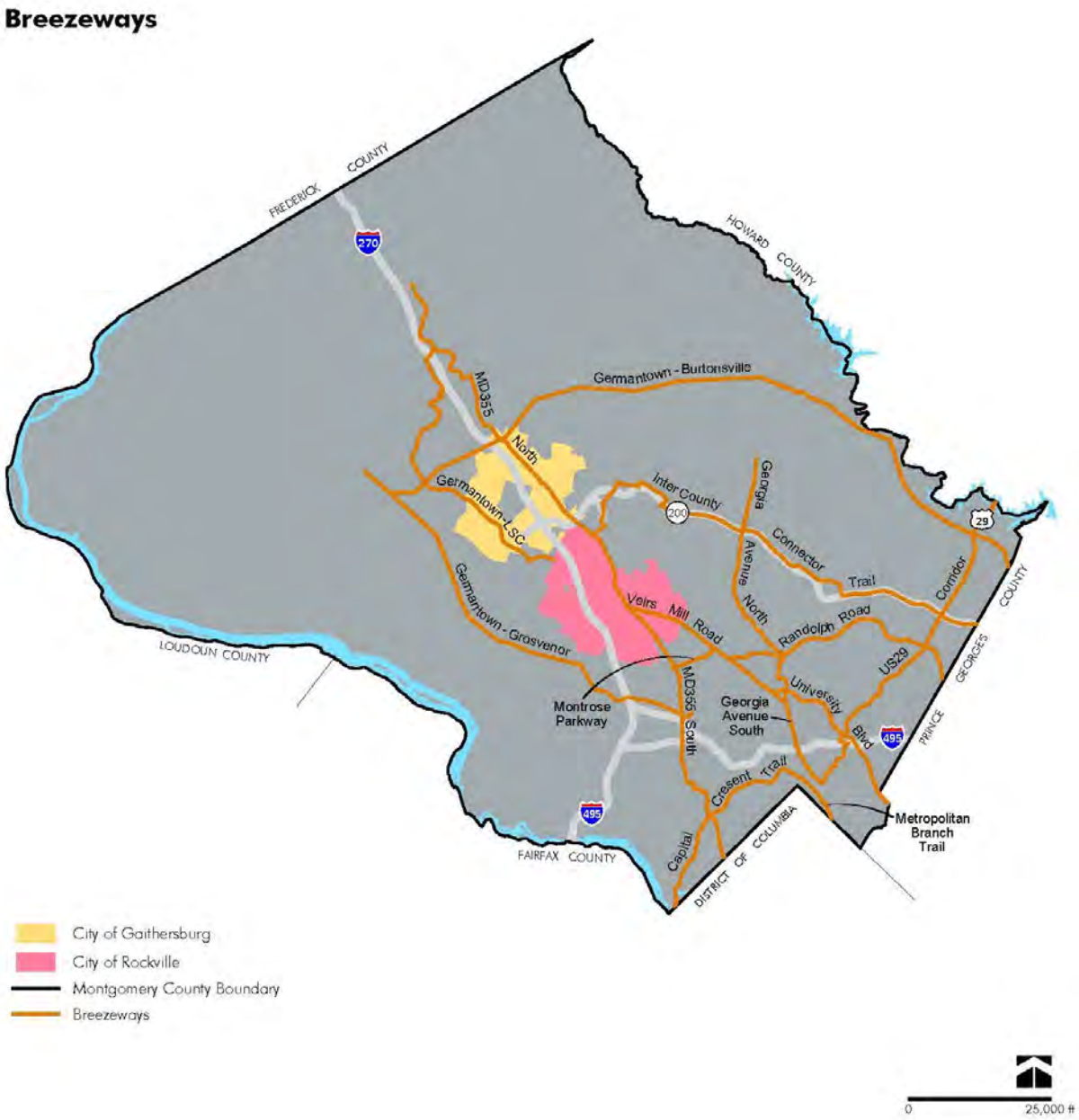
policy guidance

Implementing and maintaining the Breezeway Network may require adjusting several existing county and state policies and practices:

- Dedicated design guidance should be adopted by the Montgomery County Department of Transportation to codify minimum widths and other design standards. Newer intersection treatments may also need to be added to MCDOT's design standards.
- Maintenance practices and policies will need to be revised. New equipment will be required for sweeping, snow removal and emergency response on the county's separated bike lane network and growing trails network. A maintenance, snow removal and repaving schedule should be developed for Breezeways. This process may require revisions to the existing prioritization process for maintenance and snow removal. Snow removal laws may require careful attention to bikeways in residential areas where Breezeways run alongside the roadway, as these bikeways will need to be treated by Montgomery County.

proposed network

Fourteen corridors are proposed for the Breezeway Network's as shown in the map below. A description of each Breezeway and its major infrastructure recommendations is provided below. See Appendix I for a description of the bikeway recommendations for each Breezeway corridor.


Breezeways
FREDERICK COUNTY
HOWARD COUNTY
LOUDOUN COUNTY
FAIRFAX COUNTY
PRINCE GEORGES COUNTY
DISTRICT OF COLUMBIA
270
495
29
200
MD355
Germantown - Burtonsville
North Germantown - LSC
Inter County Connector Trail
Georgia Avenue North
Corridor
Veirs Mill Road
Randolph Road
Germantown - Grosvenor
US29
University Blvd
Montrose Parkway
MD355 South
Georgia Avenue South
Crescent Trail
Capital
Metropolitan Branch Trail
City of Gaithersburg
City of Rockville
Montgomery County Boundary
Breezeways
0
25,000 ft

Breezeway Corridors

Corridor	From	To	Typology
Capital Crescent Trail	District of Columbia	Silver Spring Transit Center	Rail Corridor
Georgia Ave North	Olney-Laytonsville Rd	Glenmont Metrorail Station	Older Major Highway
Georgia Ave South	Glenmont Metrorail Station	Spring St	Older Major Highway
Germantown - Grosvenor	Schaeffer Rd	MD 355	Utility Corridor
Germantown - Burtonsville	Utility Corridor	Prince George's County	Utility Corridor
Germantown – Life Sciences Center	Middlebrook Rd	City of Rockville	Newer Major Highway
Intercounty Connector Trail	MD 355	Prince George's County	Freeway
MD 355 North	Stringtown Rd	City of Gaithersburg	Newer Major Highway
MD 355 South	City of Rockville	District of Columbia	Older Major Highway
Montrose Parkway	Towne Rd	Veirs Mill Rd	Newer Major Highway
Randolph Road	Veirs Mill Rd	Columbia Pike	Older Major Highway
University Blvd	Veirs Mill Rd	Prince George's County	Older Major Highway
US 29	Howard County	Cedar St	Freeway
Veirs Mill Road	City of Rockville	Georgia Ave	Older Major Highway

Capital Crescent Trail

The Capital Crescent Trail is an off-road shared-use path along a rail corridor that forms a crescent as it travels from Georgetown to Silver Spring via Bethesda. Montgomery County purchased the Georgetown Branch right-of-way between the District of Columbia and the Metropolitan Branch just west of Silver Spring in 1988. M-NCPPC has jurisdiction over the portion between the District of Columbia and Woodmont Ave in Bethesda and the Montgomery County Department of Transportation has jurisdiction over the portion between Woodmont Ave and Silver Spring. In 1990, the National Park Service acquired the Georgetown Branch from Georgetown to Montgomery County.

The Capital Crescent Trail is currently paved with asphalt from Georgetown to Bethesda. It will be paved east of Bethesda and extended to the Silver Spring Transit Center as part of the Purple Line light rail project. Major infrastructure projects include:

- Widen trail to 15 feet with 2-foot-wide shoulders between Massachusetts Avenue and Bethesda Avenue, with a 5-7-foot-wide walkway and an 8-10-foot-wide bikeway.[5]
- Add lighting along the trail between Bethesda Avenue and the Silver Spring Transit Center.
- Study an improved connection to MacArthur Boulevard.

Georgia Ave North

The Georgia Avenue North Breezeway runs along the state highway between Olney-Laytonsville Road in Olney and the Glenmont Metrorail Station. It is a combination of trails, two-way separated bike lanes, sidepaths and neighborhood greenways on the west side of Georgia Avenue, using parallel streets where the detour is minimal. Major infrastructure projects include:

- Crossing at Randolph Road interchange
- Crossing at planned Norbeck Road interchange

Georgia Avenue South

The Georgia Avenue South Breezeway runs along the state highway between the Glenmont Metrorail Station and Spring Street in Silver Spring. It is a combination of trails, two-way separated bike lanes, sidepaths and neighborhood greenways on the west side of Georgia Avenue, north of Arcola Avenue and on the east side of Georgia Avenue, south of Arcola Avenue. Major infrastructure projects include:

- Pedestrian/bicycle bridge over I-495 on the east side of Georgia Avenue

Germantown – Grosvenor

The Germantown to Grosvenor Breezeway is a trail as it travels along an electrical transmission corridor between Schaeffer Road and Tuckerman Lane and separated bike lanes along Tuckerman Lane to Rockville Pike. Major infrastructure is to be determined by an Exelon facility planning study.

Germantown – Burtonsville

The Germantown to Burtonsville Breezeway is a trail that travels along an electrical transmission corridor between Germantown and Prince George's County. Major infrastructure projects include new crossings of these major roadways:

- Great Seneca Highway
- CSX Tracks
- I-270
- Frederick Road
- Woodfield Road
- US 29

[5] Achieving a 19-foot-wide trail may be difficult and expensive at bridges, culverts and other locations.

Germantown – Life Sciences Center

The Germantown – Life Sciences Center Breezeway connects Germantown Town Center and the Life Sciences Center and consists of separated bike lanes in Germantown and sidepaths along Great Seneca Highway and Key West Avenue. Major infrastructure projects include:

- New bridge on Dorsey Mill Road

Intercounty Connector Trail

The Intercounty Connector Trail Breezeway connects Shady Grove to Prince George's County. It largely consists of a trail that parallels the Intercounty Connector, but includes sidepaths in locations where the trail diverts from the highway. Major infrastructure projects include:

- New crossing of MD 200
- New bridge over Northwest Branch
- New bridge over Paint Branch
- New crossing of US 29

MD 355 North

The MD 355 North Breezeway connects Clarksburg to the City of Gaithersburg. It consists of sidepaths along MD 355 and Observation Drive. Major infrastructure projects include:

- Extension of Observation Drive between Clarksburg and Germantown.

MD 355 South

The MD 355 North Breezeway connects the City of Rockville to Friendship Heights and consists of separated bike lanes, sidepaths and trails. Major infrastructure projects include:

- Widen the Bethesda Trolley Trail to as much as 23 feet, providing separated space for walking (5 – 8 feet) and bicycling (8 – 11 feet) with shoulders (2 feet each).
- Reconstruct Rockville Pike between the City of Rockville and Marinelli Road with two-way separated bike lanes on the west side.

Montrose Parkway

The Montrose Parkway Breezeway is a trail that will connect White Flint to Veirs Mill Road. Major infrastructure projects include:

- East of White Flint, Montrose Parkway is an unbuilt highway. While current plans include an 8-foot-wide shared use path, this dimension should be increased to reflect the importance of this bikeway in the proposed network.

Randolph Road

The Randolph Road Breezeway connects Veirs Mill Road and White Oak and will be composed exclusively of sidepaths. Major infrastructure projects include:

- New bridge over Northwest Branch.

- New bridge over Paint Branch.

University Boulevard

The University Boulevard Breezeway connects Wheaton to Takoma / Langley and White Oak and will be composed of separated bike lanes in urban and urbanizing areas and sidepaths. Major infrastructure projects include:

- New bridge over I-495.

US 29 Corridor

The US 29 Corridor Breezeway connects Burtonsville to Silver Spring and will be composed of separated bike lanes, sidepaths, neighborhood greenways and trails. Major infrastructure projects include:

- New bridge over Patuxent River.
- New bridge over Paint Branch.
- New bridge over Northwest Branch.[6]
- New bridge over I-495.

Veirs Mill Road

The Veirs Mill Road Breezeway connects the City of Rockville to Wheaton and will be composed of separated bike lanes in urban and urbanizing areas and sidepaths. Major infrastructure projects include:

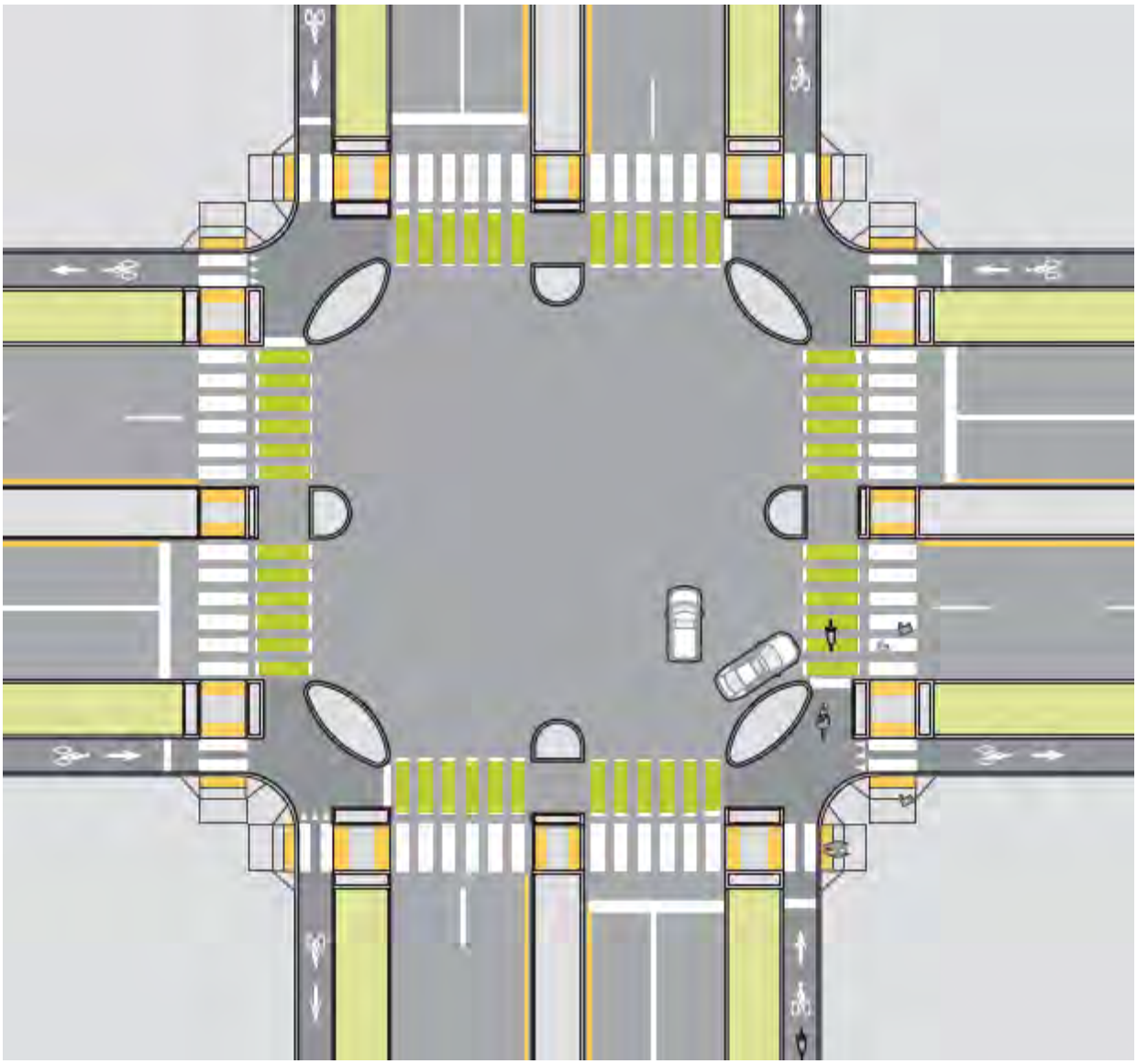
- To be determined.

crossings

There is increased potential for crashes between bicyclists and motorists at locations where bikeways cross intersections and driveways. However, since the operation of intersections, including traffic control and the provision of turn lanes, is considered outside of the scope of a master plan, only limited guidance on intersections is included in this plan.

Protected Intersections: Montgomery County should make protected intersections the preferred intersection treatment, where feasible, at all intersections where at least one street is recommended to have a sidepath, separated bike lane, buffered bike lane or conventional bike lane. Protected intersections are a type of intersection that improves safety by reducing the speed of turning traffic, improving sight lines and designating space for all road users. They reduce conflict points between motor vehicles, pedestrians and bicyclists. There are a number of different configurations of protected intersections, many of which are illustrated in Appendix B.

[6] Appropriate measures must be taken to minimize impacts to the former WSSC buildings. Any changes to the road cross section may require elevating the roadway out of the floodplain and reconstructing the stream channel upstream and downstream.



A protected intersection with one-way separated bike lanes.

Interstate Ramps: Due to the high speed of traffic on most freeway on- and off- ramps, crossing freeway ramps is a major safety concern and impediment to both walking and bicycling. Potential approaches to improving crossings at interstates include:

- Providing traffic control at the crossing, including full signalized intersections.
- Providing a grade separated crossing.

bicycle parking recommendations

The availability of secure and convenient bicycle parking is an important factor when considering making a trip by bicycle. No matter how well connected the bikeway network, many people will forgo bicycling if their destinations lack safe places to secure their bicycle. An adequate supply of bicycle parking encourages bicycling while reducing theft and improper use of trees and street furniture for bicycle parking. Whether it is a trip to work, school, shopping or home, bicyclists must feel confident that their bicycle will not be stolen or vandalized when stored. The length of time that a bicycle will be parked determines to a large extent the level of security that is needed. The longer the time period, the more secure the bicycle parking needs to be. Bicycle parking is a key component of the goals and objectives of the Bicycle Master Plan incorporated in several objectives of Goal 2.

Bicycle parking is implemented with a combination of public and private investment. The table below identifies whether the private sector or government is the likely provider of bicycle parking, based on whether the parking is long-term or short-term, the trip purpose and the destination type. Trip purpose can influence the length of time that is needed and therefore the level of security. Destination type influences whether the private sector or government is the primary provider of the bicycle parking.

Type of Bike Parking	Trip Purpose	Destination	Provider
Long-Term	Work	Office	Private / Government
		Retail	Private / Government
		Transit	Government
	School	Public Schools	Government
		Private Schools	Private
	Home	Multi-Family	Private
		Single-Family	Private (within dwelling unit)
Short-Term	Shopping	Retail	Private / Government
	Entertainment	Libraries	Government
		Rec Centers	Government
		Parks	Government
		Commercial	Private / Government

short-term bicycle parking

Short-term bicycle parking is intended to provide **quick access** to short-term destinations, such as retail locations and civic facilities, and therefore should be convenient and easy to use. It is typically located in highly visible locations, in front of building entrances and along streets and bikeways, and is available for public use. A common form of short-term bicycle parking is an inverted-u rack.

Short-Term Bicycle Parking in Downtown Silver Spring. The inverted U-rack shown here is the preferred short-term parking facility because it provides two points of contact for securing a bicycle; on the frame and on one of the wheels.

In Montgomery County, short-term bicycle parking is provided by the County government at public facilities such as parks, libraries, recreational centers and other government services and sometimes in front of commercial buildings where there is a bicycle parking shortage. As new buildings are constructed by the private sector, private building owners are required to install short term bicycle parking per the requirements in the zoning code.

The current standards in the Montgomery County zoning code requiring short term bike parking at a certain rate per unit (such as square feet) of development have not always been in place. As a result, there is a deficit of short-term bicycle parking in most areas of Montgomery County. New developments must conform to the 2014 changes to the zoning code, which require more short-term bicycle parking.

Call Out Box: Roughly 10 bicycle parking spaces can occupy the same space as one automobile.

One of the many advantages of bicycle parking is that it takes significantly less space than parking for cars. Up to 10 bicycles can fit in the same space that is needed to park one automobile. Innovations in bicycle parking design have produced stacked bicycle parking, which doubles the efficiency of a single bike parking space.

Bike corrals can fit 10 bicycles in the spaces of one automobile parking space as shown in this temporary installation on Fenton Street in Downtown Silver Spring

An evaluation of short-term bicycle parking can be found in the Monitoring the Vision section of this plan, as well as Appendix F. Programs and policies to increase the number and quality of bike parking can be found on pages XX to XX (ie the programs and policies section).

long-term bicycle parking

Long-term bicycle parking is intended to provide sheltered and secure bicycle storage for residents, students, employees and long-term visitors who are leaving their bicycle for several hours or longer. It is typically provided in a more secure and weather-protected setting, including bike stations, bike rooms or cages inside buildings and stand-alone bike lockers.

In Montgomery County, long-term bicycle parking is provided by the public sector at schools and transit stations. The private sector is responsible for providing long-term bicycle parking in retail settings, office buildings and multi-family housing per the requirements in the zoning code.

There are five types of bicycle parking in residential and commercial buildings:

A **bicycle room** located on the ground floor of a commercial or residential building is the preferred form of long-term bicycle parking because it provides:

- Highly secure bicycle storage in an enclosed facility.
- Direct access to the street or sidewalk.
- Little or no conflict with automobiles.

A **bicycle room** located in the parking garage of a commercial or residential building is the second-best form of long-term bicycle parking because it provides:

- Highly secure bicycle storage in an enclosed facility.
- Indirect access to the street or sidewalk through a parking garage.
- Reduced conflict with automobiles as cyclists navigate through the parking garage.

A bicycle room with stacked bike racks.

A **bicycle cage** located in the parking garage of a commercial or residential building is the third best form of long-term bicycle parking because it provides:

- Secure bicycle storage in a facility typically constructed of chain-link fence, which can be cut and leaves bicycles vulnerable to vandalism and theft.
- Indirect access to the street or sidewalk through a parking garage.
- Some conflict with automobiles as cyclists navigate through the parking garage.

A bike cage at The Citron in Downtown Silver Spring.

A secure, locked **bicycle locker** is the fourth best form of long-term bicycle parking because it provides:

- Highly secure bicycle storage in an enclosed box.
- Direct or indirect access to the street or sidewalk depending on whether it is located in a parking garage or at street level.
- Varying amount of conflict with automobiles depending on whether it is located in a parking garage or at street level.
- Typically, an inefficient use of space.

Bicycle racks located in a parking garage of a commercial or a residential building is the least preferred form of long-term bicycle parking because it provides:

- Less secure bicycle storage because bicycles are vulnerable to vandalism and theft.
- Indirect access to the street or sidewalk through a parking garage.
- Some conflict with automobiles as cyclists navigate through the parking garage.

As with short-term bicycle parking, there is also a deficit of long-term bicycle parking. While new developments must conform to the 2014 changes to the zoning code, which require more long-term bicycle parking, many older commercial and multi-family residential buildings offer little or no secure bike parking. While no data exists on long-term bicycle parking at commercial and residential buildings, WMATA provides some long-term bicycle parking at Metrorail stations in the form of bike lockers.

bicycle parking stations

Progressive transit agencies and local governments across the country are investing in long-term bicycle parking stations within or directly adjacent to transit stations as a way to increase transit ridership at a fraction of the cost of operating local bus service or constructing and operating parking garages. Secure bicycle parking stations can expand the use of bicycling to transit by attracting people who:

- Live beyond a 10-minute walk of the transit station and outside of the bikeshare service area.
- Are uncomfortable locking their bicycle to a standard inverted u-rack for an extended period.

Bicyclists in Montgomery County currently have a few options when they arrive at a transit station on their bicycle. They can leave their bicycles at existing bike lockers and bike racks or bring their bicycle on a Metrorail Red Line station outside of peak periods. Secure bicycle parking stations offer another means to store bicycles. These enclosed and covered facilities offer high-volume and high-security bicycle parking. Additionally, many bicycle parking stations offer services such as bicycle repair, bicycle rental, bicycle retail, food service, showers and changing rooms, lockers for personal belongings and bicycling information.

Due to capacity issues, most transit operators place limits on bringing bicycles on transit vehicles. The MARC Brunswick Line is a commuter service that operates during peak periods only. Only folding bikes are allowed on trains. WMATA permits up to two bicycles per car on Metrorail during weekends and weekdays except between 7:00 – 10:00 am and 4:00 – 7:00 pm. All Metrobus and Ride On buses are able to accommodate bicycles on the front of the vehicles.

Bicycle parking stations can be located in a variety of environments, including dense urban environments, such as the Union Station Metrorail Station in Washington, DC and in suburban areas, such as the Kramer Station in Austin, Texas.

A bicycle parking station directly adjacent to the Union Station Metrorail Station in Washington, DC

A suburban bicycle parking station at Kramer Station, Austin, Texas

Good locations for bicycle parking are visible from station entrances and can be easily monitored by station managers' line of sight or by cameras. These locations are advantageous because they are easy for bicyclists to find, and are generally more secure than spaces that are tucked away from view. Bicycle parking facilities provided on the "paid" side of fare gates may be an effective means to deter theft.

bicycle parking recommendations at transit stations

Long-term bicycle parking stations are recommended at all WMATA Metrorail Red Line stations and at the higher demand MARC, Purple Line and Corridor Cities Transitway (CCT) stations to increase the amount of bicycling to the station. The following table summarizes the recommended amount of bicycle parking spaces to be provided directly adjacent to each transit station. Long-term bicycle parking is recommended to be provided in bicycle parking stations. Short-term bicycle parking is recommended to be provided by inverted "U" racks in a covered location. The methodology used to calculate bicycle parking is based on setting a goal for bicycle access and is described in Appendix G. Actual demand may be higher or lower based on factors including the build-out of the bicycling network and whether bicyclists park their bicycles at transit stations for reasons other than transit access.

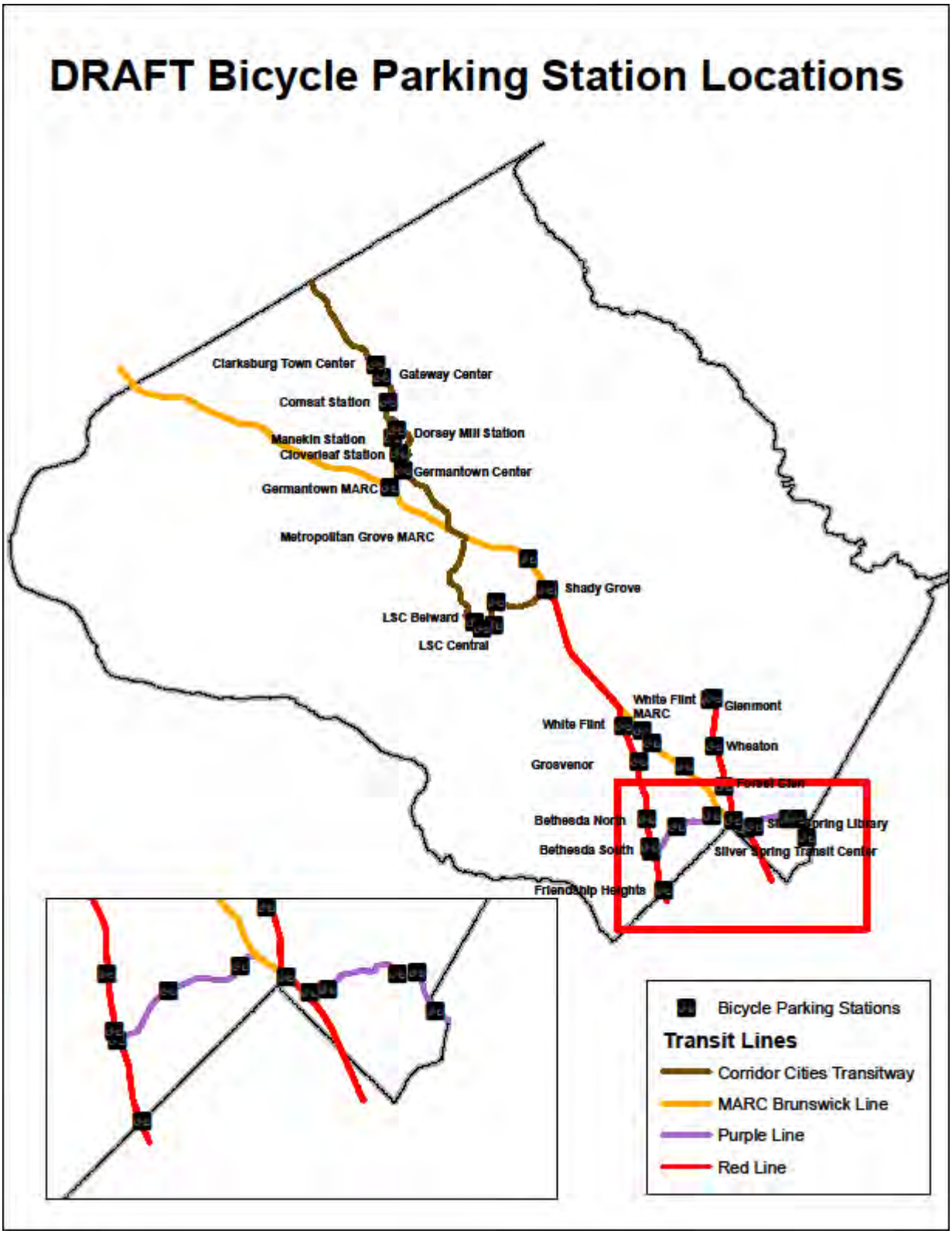
Station	Transit Line	Long-Term		Short-Term		Recommended Location
		# of Spaces	Square Feet	# of Spaces	Square Feet	
Barnesville	MARC	0	0	10	200	Station parking lot.
Bethesda North	Red Line	100	1,100	50	1,200	WMATA property at Wisconsin Avenue level and at bus loop level.
Bethesda South	Red Line, Purple Line	330	3,600	130	3,100	Within the Apex Building site and adjacent to the Capital Crescent Trail.
Boyds	MARC	20	200	10	200	Station parking lot or relocated barn building. See MARC Rail Communities Plan.
Connecticut Avenue	Purple Line	20	200	10	200	Gas station site on east side of Connecticut Ave adjacent to Purple Line.
Dale Drive	Purple Line	0	0	10	200	Adjacent to station.
DANAC	CCT	0	0	20	500	Adjacent to station.
Dickerson	MARC	0	0	10	200	Station parking lot.
Forest Glen	Red Line	300	3,200	100	2,400	Redevelopment of WMATA surface parking lot.
Friendship Heights	Red Line	200	2,200	50	1,200	Redevelopment of 2 Wisconsin Circle (ultimate); Wisconsin Circle retail (interim).
Germantown	MARC	30	300	10	200	Station existing parking lot or potential future parking garage.
Glenmont	Red Line	400	4,300	150	3,600	Both sides of the station on WMATA property.
Grosvenor	Red Line	350	3,800	100	2,400	Redevelopment of WMATA parking lot.
Kensington	MARC	20	200	10	200	Station parking lot.
Long Branch	Purple Line	30	300	10	200	Redevelopment of Giant Shopping Center site.
LSC Belward	CCT	80	900	20	500	Belward Farm site.
LSC Central	CCT	60	600	20	500	Shady Grove Adventist hospital site.
LSC West	CCT	90	1,000	10	200	Public Safety Training Academy (PSTA) redevelopment site.

Station	Transit Line	Long-Term		Short-Term		Recommended Location
		# of Spaces	Square Feet	# of Spaces	Square Feet	
Lyttonsville	Purple Line	50	500	10	200	On MTA property along Brookeville Road, adjacent to proposed pedestrian bridge.
Manchester Place	Purple Line	0	0	10	200	Station parking lot.
Medical Center	Red Line	200	2,200	50	1,200	Station entrance.
Piney Branch Road	Purple Line	10	100	10	200	Redevelopment of northeast corner of University Boulevard and Piney Branch Rd.
Shady Grove	Red Line, CCT	330	3,600	110	2,600	Both sides of the station on WMATA property.
Silver Spring	Red Line, Purple Line	590	6,400	170	4,100	Beneath Purple Line tracks or station or within WMATA joint development site.
Silver Spring Library	Purple Line	40	400	10	200	At the Silver Spring Library or Wayne Avenue garage.
Takoma / Langley	Purple Line	20	200	10	200	Redevelopment of shopping center on west side of University Boulevard.
Washington Grove	MARC	10	100	10	200	Station parking lot.
Wheaton	Red Line	400	4,300	100	2,400	Adjacent to the bus loop or as part of redevelopment of the bus loop site.
White Flint	Red Line	250	2,700	50	1,200	WMATA property adjacent to existing or proposed station entrance.
White Flint (proposed)	MARC	20	200	10	200	Station entrance.
Woodside	Purple Line	20	200	10	200	Redevelopment of shopping center site.
Total		**3,990**	**43,000**	**1,290**	**30,300**	

Planned stations where detailed engineering has not yet begun, including the proposed White Flint MARC station and the Corridor Cities Transitway Phase 2 stations, are recommended to have a minimum of 20 long-term spaces and 6 short-term spaces. As ridership estimates become available, these recommendations should be updated.

The following map shows where long-term bicycle parking stations are recommended.

Long-Term Bicycle Parking Stations (GRAPHIC TO BE CLEANED UP)



programs

This section describes the existing and recommended bicycle-supportive programs that have the greatest potential for advancing the goals of the Bicycle Master Plan. Each program description is aligned with a goal of the Bicycle Master Plan using the following symbols:

Goals

= Increase bicycling rates in Montgomery County.

= Create a highly connected, convenient and low-stress bicycling network.

= Provide equal access to low-stress bicycling for all members of the community.

= Improve the safety of bicycling.

summary of bicycle supportive programs

This table summarizes the existing, expanded and new bicycle-supportive policies recommended in this plan and identifies the Bicycle Master Plan goals that they support.

Programs	Goal 1 Increase Bicycling Rates	Goal 2 Low-Stress Connectivity	Goal 3 Equity	Goal 4 Safety
Existing Programs				
1.1 Facility Planning – Transportation	X	X		X
1.2 Stand-Alone Capital Projects	X	X		X
1.3 Bicycle Pedestrian Priority Areas Program	X	X		X
1.4 Bikeshare	X		X	
1.5 Montgomery County Bicycle Action Group	X	X		X
1.6 Safe Routes to School	X	X		X
1.7 Transportation Improvements for Schools	X	X		X
1.8 Neighborhood Traffic Calming Program	X	X		X
1.9 Pedestrian Safety Program	X	X		X
Recommended Expanded Programs				
2.1 Bikeways Program – Minor Projects	X	X		X
2.2 Roadway and Bikeway Related Maintenance	X			X
2.3 Snow Removal / Wind / Rain Storms	X			X
Recommended New Programs				
3.1 BikeMontgomery Outreach Program	X		X	
3.2 Bicycle Master Plan Monitoring Report	X	X	X	X
3.3 Neighborhood Greenway Program	X	X		X
3.4 Bicycle Parking Program	X	X		
3.5 Public School Bicycle Education	X		X	X
3.6 Bicycle Facility Education	X		X	X
3.7 Bicycle Count Program	X			X
3.8 Countywide Wayfinding Plan	X	X		

existing bicycle-supportive programs

The following existing bicycle-supportive programs have the greatest potential for advancing the goals of the Bicycle Master Plan.

1.1 Facility Planning – Transportation

Description: Facility planning studies are conducted prior to the establishment of stand-alone transportation projects in the Capital Improvement Program. Phase I facility planning studies determine the purpose and need of the project; identify community, economic, social, environmental, and historic impacts; and provide a recommended concept design. At the completion of Phase I, the Transportation, Infrastructure, Energy and Environment (T&E) Committee of the County Council determines if the project should advance to a more detailed Phase II facility planning study. Phase II studies provide preliminary engineering designs to show more detailed features of the project, and refine the impact analysis and cost estimates. At the completion of Phase II, the County Executive and County Council hold project-specific public hearings to determine if the candidate project merits consideration in the Capital Improvement Program as a funded stand-alone project.

Lead Agency: Department of Transportation

1.2 Stand-Alone Capital Projects

Description: If upon completion of a Phase II facility planning study the County Council decides to fund a bicycle project, it becomes a stand-alone project in the Capital Improvement Program. Existing bicycle projects include the Capital Crescent Trail east of Bethesda, Falls Road East Side Hiker/ Biker Path, Frederick Road Bike Path and the Metropolitan Branch Trail.

Lead Agency: Department of Transportation

1.3 Bicycle Pedestrian Priority Areas Program

Description: The Bicycle Pedestrian Priority Areas program designs and constructs bicycle and pedestrian capital improvements in the 31 Bicycle-Pedestrian Priority Areas (BiPPAs) identified in County master plans and by Council resolution. Implementation of projects in the Silver Spring CBD BiPPA began in FY16. Implementation of projects in the Grosvenor, Glenmont, Wheaton CBD, Veirs Mill Road/Randolph Road, Flower Avenue/Piney Branch Road, Piney Branch Road/University Boulevard and Takoma-Langley Crossroads BiPPAs began in FY17. This program employs a BiPPA Program Manager.

Lead Agency: Department of Transportation

1.4 Bikeshare

Description: Montgomery County's bikeshare program administers and operates bikeshare in Montgomery County. There are currently over 50 bikeshare docks provided by Capital Bikeshare within the County in Bethesda, Chevy Chase Lake, Friendship Heights, Life Sciences Center, Rockville, Shady Grove, Silver Spring, Takoma Park and Wheaton. Free memberships are available for those who meet income eligibility requirements under a program called MCLiberty. Montgomery County is also piloting a dockless bikeshare program. The program employs a Bikeshare Program Manager.

Lead Agency: Department of Transportation

1.5 Montgomery County Bicycle Action Group

Description: The Montgomery County Bicycle Action Group (MCBAG) was created in 1996 to gain input from citizens interested in bicycling issues. The group meets monthly and advises the Montgomery County Department of Transportation on current issues, programs and projects relating to bicycling in Montgomery County.

Lead Agency: Department of Transportation

1.6 Safe Routes to School Program

Description: The Safe Routes to School program aims to increase walking and bicycling to school through engineering, education, enforcement and encouragement. The program employs a Safe Routes to School Coordinator.

Lead Agency: Department of Transportation

1.7 Transportation Improvements for Schools Program

Description: The Transportation Improvements for Schools program provides transportation improvements such as intersection modifications, sidewalks, traffic signals, streetlights, etc., necessary for safe pedestrian and vehicular circulation for schools identified in the Montgomery County Public Schools (MCPS) Capital Program.

Lead Agency: Department of Transportation

1.8 Neighborhood Traffic Calming Program

Description: This program provides for the planning, design and construction of physical traffic control features in residential neighborhoods. Traffic calming features such as traffic circles and islands, curb extensions, speed humps, physical and painted lane narrowing devices, etc., are used to maintain and improve the safety and livability of residential neighborhoods by addressing issues of aggressive driving

and excessive speeds and volumes. Traffic calming will be an integral part of the neighborhood greenways proposed in this plan.

Lead Agency: Department of Transportation

1.9 Pedestrian Safety Program

Description: This project improves safety for pedestrians and bicycles by constructing and installing new crosswalks, pedestrian refuge islands, sidewalks, bus pull-off areas, fencing to channel pedestrians to safer crossing locations, bicycle signs and markings, relocating, adding, or eliminating bus stops, accessible pedestrian signals or warning beacons, and improving signage, among other things. This project supports the construction of improvements at and around schools identified in the Safe Routes to School program and performs pedestrian safety audits at High Incidence Areas and implements identified physical improvements, as well as education and outreach programs.

Lead Agency: Department of Transportation

recommended expanded bicycle-supportive programs

Existing bicycle-supportive programs that are recommended for expansion are discussed in this section. Recommended actions to expand existing programs are listed below along with a justification statement for each recommendation.

2.1 Bikeways Program – Minor Projects

Description: The Annual Bikeways program plans, designs, and constructs bikeways, trails and wayfinding signs that cost less than $1,000,000. The current implementation schedule includes construction of shared use paths on Rockville Pike at Strathmore (FY18-20), Washington Grove Connector (FY21-22) and Emory Lane (FY21-22). The program employs a Bikeways Coordinator. The project description form (PDF) for this program should be expanded to explicitly authorize it to fund new neighborhood connectors and to upgrade and maintain existing neighborhood connectors. See Section X (ie, the bikeway facility classification section of the plan) and Appendix J for more information on neighborhood connectors.

Justification: Neighborhood connectors provide direct connections to residential streets but are oftentimes poorly maintained. Neighborhood connectors also provide much needed linkages between low-stress traffic streets thereby allowing bicyclists to avoid higher stress streets.

Lead Agency: Department of Transportation

2.2 Roadway and Related Maintenance

Description: The existing Roadway and Related Maintenance program provides mowing, roadside vegetation clearing, street cleaning and other maintenance activities.

Expand the “Roadway and Related Maintenance” program to include debris removal and trimming or removing overgrown vegetation from bikeways. Priorities may include bikeways in commercial areas, surrounding transit stations and major connections between activity centers. While bikeway debris clearance should primarily be a government function, use of volunteers as part of an “Adopt a Bikeway” program could be part of this effort.

Justification: Ensuring clear and navigable bikeways improves safety and accessibility.

Lead Agency: Department of Transportation

2.3 Snow Removal / Wind / Rain Storms

Description: The existing Snow Removal / Wind / Rain Storms program includes the removal of storm debris within rights-of-way and snow from County roadways. This includes plowing and applying salt and sand, equipment preparation and cleanup from snow storms, and wind and rain storm cleanup.

Expand this program to include snow removal from bikeways. Priorities may include bikeways in commercial areas, surrounding transit stations and major connections between activity centers. The program should purchase specialized equipment to plow separated bike lanes, which in some cases are too narrow for conventional plowing vehicles.

Justification: Snow is an impediment to safe bicycling. Furthermore, during snow events, people are sometimes more willing to walk or bike than they are willing to drive. Ensuring clear and navigable bikeways improves accessibility and safety.

Lead Agency: Department of Transportation

recommended new bicycle-supportive programs

New bicycle-supportive programs are recommended in this section along with a justification statement for each recommendation.

3.1 BikeMontgomery Outreach Program

Description: The BikeMontgomery Outreach Program encourages more people to bicycle in Montgomery County through outreach and community building. Among other things, the program may organize a Bicycle Ambassador program, maintain an online bicycling forum, conduct bicycling events such as bike rodeos and thematic bike rides and conduct tours of new bicycle infrastructure.

Justification: Programs such as the DC Bike Ambassador program and the BikeArlington have helped to expand bicycling in their respective jurisdictions by helping to create a community that strongly supports bicycling.

Lead Agency: Department of Transportation

3.2 Bicycle Master Plan Monitoring Report

Description: The Bicycle Master Plan Monitoring Report is a biennial report to the County Council that would track progress toward advancing the Bicycle Master Plan's goals and objectives and summarize new bicycle infrastructure and changes to County bicycling programs and policies. This report would also summarize available bicycle count data.

Justification: Provides transparent and accountable implementation of the Bicycle Master Plan.

Lead Agency: Planning Department

Supporting Agencies: Department of Transportation, Public Schools, Police Department

3.3 Neighborhood Greenway Program

Description: The Neighborhood Greenway Program implements the neighborhood greenways recommended in the Bicycle Master Plan by: 1) developing a marketing approach to convey the community-wide benefits of neighborhood greenways, 2) developing a menu of treatments, 3) conducting a legislative and regulatory assessment to determine barriers to implementing successful neighborhood greenways and 4) constructing the network, including wayfinding and integration into local maps.

Justification: Neighborhood greenways are a cost-effective way to providing low-stress bicycle networks through residential communities.

Lead Agency: Department of Transportation

Supporting Agency: Planning Department

3.4 Bicycle Parking Program

Description: The Bicycle Parking Program increases the supply of short-term and long-term bicycle parking and replaces substandard bike racks with those that conform to industry standards. It will develop a bicycle parking implementation plan focused on commercial areas, transit stations, schools, recreation centers, libraries, other public facilities and multi-family dwelling units. The program will maintain a geospatial inventory of public and private short-term and long-term bicycle parking and a continuous assessment of bicycle parking shortages based on the analysis in Appendix F. The program will develop an online bike rack request website. It will train County inspectors to ensure bicycle parking is installed correctly and coordinate bicycle valet parking for special events in the county. It will be led by a Bicycle Parking Coordinator.

Justification: Montgomery County has a shortage of bicycle parking, as shown in Appendix F. When people cannot park their bicycles, they are discouraged from bicycling for non-recreational trips.

Providing additional bike parking will increase bicycling, reduce theft, and reduce improper use of trees and other street infrastructure for bicycle parking.

Lead Agency: Department of Transportation

Supporting Agencies: Department of General Services, Parks Department, Department of Permitting Services

3.5 Public School Bicycle Education

Description: The Public School Bicycle Education program incorporates bicycle training and safety education in Montgomery County public school curricula, including elementary, middle and high school.

Justification: Many adults are deterred from bicycling because they did not learn how to ride a bicycle as a child or have not been educated in bicycle safety. Additionally, children are great advocates for supporting bicycling. Learning rules of the road in the bicycling context as children better prepares students to be safer drivers in the future.

Lead Agency: Public Schools

Supportive Agency: Department of Transportation, Police Department

3.6 Bicycle Facility Education

Description: The Bicycle Facility Education program educates motorists, pedestrians and bicyclists on the safe use of new bicycle facilities. Among other things, this program would create public service announcements, provide information and conduct onsite trainings so that all roadways users know how to safely navigate new bicycle infrastructure.

Justification: Public outreach is need to educate members of the public on the appropriate use of and interaction with new forms of bicycle infrastructure.

Lead Agency: Department of Transportation

Supporting Agency: Police Department

3.7 Bicycle Count Program

Description: The Bicycle Count Program conducts pre- and post-implementation studies of new bicycle infrastructure projects to track the frequency at which they are being used, installs permanent bicycle counters at key locations to track the growth of bicycling over time, collects annual counts at multiple locations, and conducts counts at locations of high crash rates. Data collected from this initiative will be posted online.

Justification: Enables a data-driven process that tracks bicycling trends in the County and provides a measure of exposure when analyzing bicycle safety.

Lead Agency: Department of Transportation

Supporting Agency: Department of Parks, Planning Department

3.8 Countywide Wayfinding Plan

Description: The Countywide Wayfinding Plan implements a countywide wayfinding plan that directs bicyclists to major destinations, including commercial areas, transit stations and major public facilities. This plan would identify key destinations, low-stress routes, and a consistent, legible, and branded protocol for communicating those elements to bicyclists. The plan will be updated every few years.

Justification: With an emerging bicycling network that is not fully connected, wayfinding is needed to direct bicyclists to low-stress bikeways.

Lead Agency: Department of Transportation

legal and policy framework

This section describes the existing and recommended bicycle-supportive laws, regulations and policies that have the greatest potential for advancing the goals of the Bicycle Master Plan. Each element in this framework is aligned with one or more goals of the Bicycle Master Plan, signified in the list below by the following symbols:

Goals

= Increase bicycling rates in Montgomery County.

= Create a highly connected, convenient and low-stress bicycling network.

= Provide equal access to low-stress bicycling for all members of the community.

= Improve the safety of bicycling.

summary of bicycle supportive legal and policy framework

This table summarizes the existing and recommended bicycle-supportive laws, regulations and policies recommended in this plan and identifies the Bicycle Master Plan goals that they support.

Policies	Goal 1 Increase Bicycling Rates	Goal 2 Low-Stress Connectivity	Goal 3 Equity	Goal 4 Safety
Existing Legal and Policy Framework				
1.1 Vision Zero				X
1.2 Road Code Urban Areas	X	X		X
1.3 Local Land Use Laws	X	X		
Recommended Laws, Regulations and Policies				
Roadway Laws & Policies				
2.1 Authorize Lower Posted Speed Limits	X	X		X
2.2 Repeal the Mandatory Use Law				X
2.3 Conduct a “Rules of the Road” Assessment				X
2.4 Replace the State’s Marked Bike Lane Policy	X			X
2.5 Develop a County Policy on E-Bikes	X			X
Design Standards and Practices				
2.6 Establish Level of Traffic Stress Targets	X			X
2.7 Update Context Sensitive Road Design Standards	X	X		X
2.8 Review all Designed Projects Against Best Practices	X	X		X
2.9 Make Separated Bikeways the Preferred Bikeway Facility Type	X	X		X
2.10 Make Protected Intersections the Preferred Intersection Type	X	X		X
2.11 Consolidate Driveways along Existing and Proposed Separated Bikeways		X		X
2.12 Develop a Shared Lane Marking Policy	X			X
2.13 Develop Bicycle Parking Standards for County Facilities	X	X		
2.14 Reassess Road Code Urban Area Boundaries	X			X
2.15 Establish Standards for Trail Crossings at Major Roads	X			X
Maintenance				
2.16 Develop Protocols for Bicycle Facility Closures and Detours	X			X
Other				
2.17 Vision Zero Rapid Response Team				X
2.18 Provide Open Access to Crash Data				X
2.19 Update the Zoning Code		X		
2.20 Revise the Bicycle to School Policy	X			

existing legal and policy framework

The following existing laws, regulations and policies have the greatest potential for advancing the goals of the Bicycle Master Plan.

1.1 Vision Zero

Montgomery County has adopted a policy of zero transportation-related fatalities and has charged the County Executive with establishing: 1) a date by which to achieve zero deaths, 2) a set of activities that County agencies will take to implement a Vision Zero Action Plan, and 3) a set of recommended policy changes at the state and local levels.

Lead Agency: Montgomery County Department of Transportation

1.2 Urban Road Code Areas

The Montgomery County Code specifies maximum standards for lane widths (10 – 11 feet) and curb radii (15 feet) on urban roads, as well as speed limits when they are not already predetermined in a specific master plan. Narrower streets and curb radii improve bicycling by slowing the speed of traffic and by providing space for bikeways. Lower speed limits create a more low-stress environment for bicyclists and pedestrians.

Lead Agency: Montgomery County Department of Transportation

1.3 Local Land Use Laws

The Maryland-National Capital Park and Planning Commission (M-NCPPC) reviews all development proposals and site plans for consistency with master plans and zoning code requirements. Projects may be required to dedicate land for transportation facilities, construct bikeways on site and along the frontage of the property, and/or provide bicycle parking, showers and changing facilities.

Lead Agency: Montgomery County Planning Department

recommended laws, regulations and policies

The following new bicycle-supportive laws, regulations and policies are likely to have the greatest effect on advancing the goals of the Bicycle Master Plan.

2.1 Authorize Lower Posted Speed Limits

Description: Petition the General Assembly to lower the “default” speed limit to 20 mph and reduce the lowest possible speed limit to 15 mph in Montgomery County.

Justification: Studies have shown that the likelihood that a crash between a car and a pedestrian or bicyclists will result in a serious injury or fatality for the pedestrian or bicyclists decreases as the speed of the car decreases. Furthermore, slower speeds enhance visibility of bicyclists and pedestrians and allow more reaction time in the case of possible collisions.

Lead Agencies: Department of Transportation, Planning Department, Police Department

2.2 Repeal the Mandatory Use Law

Description: Advocate for the repeal of Section 21-1205.1(b)(2) of the Maryland Code's Transportation Article, which requires bicyclists to ride in marked bicycle lanes.

Justification: There is a legacy of poor bicycle lane design in Montgomery County (and much of the country), including narrow bicycle lanes, bicycle lanes that end short of intersections and bicycle lanes that are placed to the right of right turning traffic. Until safe bicycle facilities are ubiquitous in Montgomery County, bicyclists should have the right to decide where it is safe to bicycle.

Lead Agencies: Montgomery County Government

2.3 Conduct a "Rules of the Road" Assessment

Description: Conduct an analysis of State and County laws, policies, and regulations to identify gaps and inconsistencies in the legal framework supporting bicycling. Address those gaps and inconsistencies through changes to legislation, policies and regulations.

Justification: State and County laws, policies and regulations are unclear and often inconsistent.

Lead Agencies: Department of Transportation, Planning Department, Police Department, State Highway Administration

2.4 Replace the State's Marked Bike Lane Policy

Description: Pursue replacement of the Maryland State Highway Administration's marked bike lane policy with one that is consistent with achieving a low-stress bicycling network[7].

Justification: The state's marked bike lane policy requires that all road projects that involve widening or new construction install conventional bike lanes, and that conventional bike lanes should be considered as part of all activities that disturb the paved roadway area, disturb the adjacent curb, or adjust lane striping. While conventional bike lanes are appropriate in some locations, they are not appealing for many adults on roads with four or more lanes of traffic, a 30-mph or faster posted speed limit, or that is traveled by over 6,000 vehicles per day. In many instances, a sidepath or separated bike lane would be

[7] Bicycle Policy & Design Guidelines, Maryland State Highway Administration, January 2015.

the more appropriate, less stressful facility. Additional flexibility in design is needed with the marked bike lane policy.

Lead Agencies: Montgomery County Government

2.5 Develop a County Policy on E-Bikes

Description: Develop a consistent policy regarding electric bikes (e-bikes) in Montgomery County.

Justification: E-bikes are the fastest growing market for bicycles in the United States. They make bicycling a viable transportation option for more people, reduce barriers for people who travel longer distances, carry heavy loads or passengers, or face other challenges that might preclude using a bicycle to make a trip, but E-bikes also raise fears among some people that trails and other bikeways will become speedways. Currently, e-bikes are not permitted on County park trails, but are permitted on National Park Service trails, and other shared use paths. The updated policy should look to create context-sensitive regulations that are intuitive and consistent.

Lead Agencies: Montgomery County Government

Design Standards and Practices

2.6 Establish Level of Traffic Stress Targets

Description: Establish Level of Traffic Stress targets including a “low” level of traffic stress countywide and a “very low” level of traffic stress within the vicinity of schools, libraries, parks and recreation centers on all roads where it is legal to ride a bicycle.

Justification: A “low” level of traffic stress is appropriate for most adults and a “very low” level of traffic stress is appropriate for most children.

Lead Agencies: Department of Transportation, Planning Department

2.7 Update Context Sensitive Road Design Standards

Description: Update Montgomery County’s Context Sensitive Road Design Standards to include all bicycle facility types outlined in the Bicycle Facility Toolkit, including separated bike lanes, buffered bike lanes, advisory bike lanes, neighborhood greenways, shared streets and protected intersections. Remove obsolete bikeways, such as wide outside lanes and bikeways that are no longer recommended, including conventional bike lanes on major highway, arterials and minor arterials.

Justification: Montgomery County road design standards include only three types of bicycle facilities recommended in the Bicycle Master Plan: conventional bike lanes, shared use paths and wide outside lanes, but these standards are inconsistent with the recommendations in this Plan.

Lead Agency: Department of Transportation

Supporting Agency: Planning Department

2.8 Review all Designed Projects Against Best Practices

Description: Several capital projects that include bicycle and pedestrian elements were designed years ago and do not reflect best practices, including Falls Road Hiker / Biker project and the Seven Locks Road Hiker / Biker project. The Montgomery County Department of Transportation should review and upgrade the design for bikeway projects that have been designed but have not yet implemented.

Justification: Many bicycle projects and roadway projects with bicycle elements have completed designs that no longer reflect best practices. Montgomery County should revisit these designs rather than proceed with projects that will need to be upgraded later at a higher cost.

Lead Agency: Department of Transportation

Supporting Agency: Planning Department

2.9 Make Separated Bikeways the Preferred Bikeway Facility Type

Description: Establish separated bikeways (separated bike lanes and sidepaths) as the preferred bicycle facility classification in Montgomery County's Context Sensitive Road Design Standards on roads with four or more lanes of traffic, target traffic speeds 30 mph or faster, with traffic volumes anticipated to exceed 6,000 vehicles per day and on commercial streets with on-street parking.

Justification: Separated bikeways, including separated bike lanes and sidepaths, encourage bicycling on roads with high traffic volumes, high speeds, and in commercial areas.

Lead Agency: Department of Transportation

Supporting Agency: Planning Department

2.10 Make Protected Intersections the Preferred Intersection Type

Description: Revise Montgomery County's Context Sensitive Road Design Standards to make protected intersections the preferred type of intersection treatment, where feasible, at all intersections where at least one street is recommended to have a sidepath, separated bike lane, buffered bike lane or conventional bike lane.

Justification: Protected intersections improve safety for all modes of transportation by slowing traffic and consolidating conflicts to a single point so that remaining minimal conflicts can be eliminated through signalization.

Lead Agency: Department of Transportation

Supporting Agency: Planning Department

2.11 Consolidate Driveways along Master-Planned Bikeways

Description: Develop policies to consolidate driveways as part of facility planning and development approvals along master-planned bikeways.

Justification: Driveways create a conflict area between bicyclists and motorists and stronger policies are needed to require greater driveway consolidation.

Lead Agency: Montgomery County Government

2.12 Develop a Shared Lane Marking Policy

Description: Develop a policy for the use of shared lane markings, also known as sharrows, that indicates when these pavement markings are appropriate. This could include low-volume and low-speed streets, such as neighborhood greenways, where sharrows reinforce bicyclists' right to bicycle in the center of the lane and can serve a wayfinding function. Additionally, the sharrow policy could also be used on an interim basis on streets that are master-planned for other bicycle facilities that serve a critical network function in connecting major destinations, but where implementation of the master-planned bicycle facility may take several years to implement.

Justification: Montgomery County does not have a policy that specifies when it is appropriate to use shared lane markings and the current implementation of sharrows is confusing to both motorists and bicyclists, as it is not uniformly applied.

Lead Agency: Department of Transportation

2.13 Develop Bicycle Parking Standards for County Facilities

Description: Establish short-term bicycle rack standards for use at County facilities based on those outlined in the Association of Pedestrian and Bicycle Professionals Bicycle Parking Guidelines, 2nd Edition.

Justification: Public buildings should model best practices in the use of bicycling parking. However, Montgomery County continues to install substandard short-term bicycle parking racks at County facilities.

Lead Agency: Department of General Services

2.14 Reassess Road Code Urban Area Boundaries

Description: Assess the existing road code urban area boundaries to determine if additional areas should be classified as urban based on existing zoning and proximity to major existing and planned transit

stations. The road code urban area designation reduces the design speed of roads by narrowing traffic lanes, reducing turning radii and reducing speed limits.

Justification: There are several areas in the County that are not currently designated as urban, even though they are designated with mixed-use or high density residential zoning that will likely generate high levels of walking and bicycling. Over time, designating additional areas as urban will help to encourage more walking and bicycling, as narrower traffic lanes and slower designs speeds create a safer and more comfortable walking and bicycling environment. Narrowing traffic lanes can also provide additional space for bicycle and pedestrian infrastructure.

Lead Agency: Planning Department

2.15 Develop Standards for Trail Crossings at Major Roads

Description: Establish a policy of improving trail crossings of roads with three or more lanes of traffic or a posted speed limit of 30 mph or greater. Improvements to trail crossings would be made through: 1) traffic calming that removes traffic lanes and / or reduces the design speed of the road, 2) reducing conflicts by realigning the trail to an existing signalized intersection, providing a grade separated crossing, or adding new traffic signalization, and / or 3) other improvements that improve the safety and comfort of the crossing.

Justification: The low-stress bicycling experience that trails provide is interrupted where trails cross high speed or multilane roads.

Lead Agencies: Department of Transportation, Department of Parks

Supporting Agency: Planning Department

2.16 Develop Protocols for Bicycle Facility Closures and Detours

Description: Develop a protocol for bikeway closures and detours to ensure that comparable bikeways are provided to the extent possible, that adequate signing is provided to communicate the detour to bicyclists and that the public is provided adequate notice of the detour. When a public right-of-way occupancy permits authorizes blockage of a sidewalk or bikeway the permittee would be required to provide safe accommodation for pedestrians and bicyclists using the same traffic control practices that would be applied when a lane of motor vehicle traffic is closed.

Justification: Adequate bicycle and pedestrian facilities should be maintained when bikeway and pedestrian closures and detours are needed.

Lead Agency: Department of Transportation

2.17 Vision Zero Rapid Response Team

Description: Form a multi-disciplinary, multi-agency rapid response team to analyze and respond to every fatal crash in Montgomery County. This team should identify the causes of the fatality and recommend appropriate street design changes, policy changes and other actions. The team should monitor whether the changes have addressed the causes of the fatality and recommend additional changes if the causes have not been sufficiently addressed. A publicly available report should be issued for every fatal crash.

Justification: A multi-disciplinary team is needed to identify the causes of a fatal crash, including failure to follow the rules of the road and road design.

Lead Agency: Department of Transportation, Police Department

2.18 Provide Open Access to Crash Data

Description: Publish online, once per quarter, the following data related to each fatal and serious injury crash that occurred in the preceding quarter, including: 1) date and time of the crash, 2) type of motor vehicle or motor vehicles involved in the crash, 3) location and coordinates of the crash, 4) number of fatalities or injuries that result from the crash, disaggregated by fatality or serious injury and mode of transportation, 5) available demographic information about the person or persons involved in the crash, 6) the human factor or factors that contributed to the crash, such as intoxication, inattention or distraction, speeding, or failure to yield, and 7) environmental factors such as lighting and weather conditions. If complete data about a crash is not available at the time of publication, the information that is available at the time of publication should be published online and the data updated as additional information becomes available.

Justification: Accurate, complete, and accessible data will help Montgomery County implement its Vision Zero initiative by identifying high priority locations for safety improvements, analyzing the impacts of street design features, creating more accurate benchmarks for measuring safety improvements over time, promoting transparency and ensuring the public's ready access to important safety information.

Lead Agency: Police Department

2.19 Update the Zoning Code

Description: Amend the Zoning Code to improve the bicycle parking and end-of-trip bicycle facility requirements.

Justification: While the Zoning Code update in 2014 brought major improvements for the provision of bicycle parking, showers and change rooms, additional changes are needed to clarify existing requirements and to meet industry best practices, including requirements to:

- Incentivizing bicycle rooms as the preferred form of long-term bicycle parking in residential and commercial buildings.
- Disallow bicycle lockers and bicycle racks as long-term bicycle parking in residential and commercial buildings.

- Identify performance standards for stacked bike racks.
- Provide repair station requirements to the long-term bicycle parking section.
- Provide a portion of long-term bicycle parking to accommodate larger bicycles, including tandems, bicycles with trailers and cargo bikes.

Justification: Higher-quality bicycle parking encourages more bicycling.

Lead Agency: Montgomery County Planning Department

2.20 Revise the Bicycle to School Policy

Description: Develop a countywide policy that permits children to bicycle to school.

Justification: School principals retain the authority to determine when students can bicycle to school and many prohibit bicycling.

Lead Agency: Public Schools

IMPLEMENTING THE VISION

Developing a plan for a world-class bicycling community is the easy part. 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 include:

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

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 in the program sections 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 destination, or simply a common acceptance among most people that bicycling is a normal, practical and useful mode of transportation. It is not enough to produce support materials for bicycling, such as maps or guides; a world-class plan helps identify ways in which those materials can reach and be relevant to all community members.

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

establish 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 Department of Transportation (Directors Office, Traffic Engineering, Transportation Engineering), Planning Department (Development Review, Bicycle Planning), Department of Parks, Department of General Services and Department of Permitting Services. This task force will meet regularly to discuss ways to encourage bicycling and facilitate implementation of the Bicycle Master Plan. It will provide annual updates to the Montgomery County Council. It will be jointly chaired by staff of the Department of Transportation and Planning Department.

concept 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 makes 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 to 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 "concept plans" for areas of the county with high development potential, including but not limited to downtown Bethesda, downtown Silver Spring, Germantown, the Life Sciences Center, Rock Springs, Twinbrook, Wheaton CBD, White Flint and White Flint 2. The Montgomery County Planning Board may approve additional locations as appropriate for the development of concept plans. Concept plans will provide interim, where appropriate, and permanent design options for the bicycle facilities recommended by this Plan. An interim design option will include a bikeway network that can be realistically implemented, through public or private efforts, within the next 5 years. The permanent design option will outline what is possible in the longer period, when facility planning projects are implemented and developments are constructed.

In creating concept plans for these areas, Department of Transportation and Planning Department staff will consider site-specific challenges associated with implementing this 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 concept plan is not intended to provide the only acceptable option for meeting the recommendations of this Plan, it will offer both public and private developers a starting point for designing projects in conformance with the Plan.

This Plan envisions all concept plans completed within five years of this Plan's adoption by the Maryland-National Capital Park & Planning Commission. Each concept plan must be approved by the Montgomery County Planning Board before it is considered complete.

bikeway implementation mechanism

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

- Capital Improvement Program
- Development Approval
- Public Facility Projects

Extensive public outreach is needed during project implementation.

implementation through capital improvement program

One way that bicycle facilities are implemented in Montgomery County is through the capital improvement program. Montgomery County's capital budget provides the spending authority that county agencies need to implement projects. The capital budget is six-year program for capital improvements that is comprehensively amended every two years on even-numbered years and with less substantial adjustments on odd-numbered years. The capital budget includes funding for several programs that improve bicycling, described in Section X (programs section) of this plan. Major funding programs include stand-alone capital projects such as construction of new roads that include bikeways, stand-alone bikeway projects added to an existing road and facility planning projects that enable preliminary engineering of projects that 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 Whether there is Sufficient Space to Implement 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 community. If the master-planned bikeway fits, the project should begin more detailed design with 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 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 more detailed design with 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:** 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 on the corridor, either because additional right-of-way is available, fewer lanes are needed, or some other reason.

Call-Out Box: Facility Planning Process

Facility planning for projects, including bikeways, is typically divided into two phases. Funding for these phases is often separate. Facility planning serves as the transition stage for a project between the master plan and its inclusion as a stand-alone project in the Capital Improvement Program.

During Phase I of facility planning, the Montgomery County Department of Transportation performs a rigorous planning level investigation of the following critical project elements: purpose and need, usage forecasts, traffic impacts, community impacts, public participation, investigation of non-County sources of funding and cost estimates.

At the end of Phase I, MCDOT determines if the project has the merits to advance to Phase II, which involves Preliminary (35 percent level of completion) engineering design. During this phase, construction plans are developed showing the specific alignment and detailed features of the project, from which its impacts, including environmental 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.

At the completion of Phase II, the County Council and County Executive hold project-specific public hearings to determine whether the candidate project has the merits to advance in the CIP as a fully funded stand-alone project and enter into final design and construction. Public testimony is considered during public hearings.

implementation through development approvals

Like many jurisdictions, Montgomery County supplements capital projects by requiring the construction of bikeways through the development approval process. Typically, developers are required to construct bicycle facilities along the frontage of their projects and bicycle facilities internal to their projects. For larger scale projects this can result in substantial contributions to the bicycling network. For smaller projects, this may result in discontinuous sections of bikeways that will be completed later as other developments are constructed or through county projects. While the construction of discontinuous facilities can be confusing to members of the public who are concerned about the construction of "bikeways to nowhere," there are several advantages to this incremental approach:

1. It reduces the cost of construction for Montgomery County.
2. It encourages the construction of bicycle facilities when adjoining properties redevelop.
3. It reduces future impacts to the community.
4. It avoids the difficulty of "reclaiming" land that property owners may be maintaining, but is actually in the public right-of-way.

This Master Plan recommends many types of bicycle facilities throughout Montgomery County. Where the Plan recommends any of the following facilities either within a proposed development or along a development's frontage on a public-right-of-way, the developer 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 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. (see Figure X below)
- Construct new raised separated bike lanes 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.
- Provide for the future implementation (see call-out box below) of raised separated bike lanes 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. In this case, the developer must make a financial contribution for the difference between full implementation of the bikeway and providing for future construction of the bikeway to an appropriate capital project that will later complete the bikeway. This financial contribution will be used by the Montgomery County Department of Transportation to implement bikeway projects within the vicinity of the development project.

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.
- Provide for the future implementation (see call-out box 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.

Call-Out Box: Providing for Future Bikeways

Where MCDOT determines that it is not desirable to require a development project to fully implement a master-planned bikeway on the property's right-of-way frontage because there are not logical termini to do so, the developer will be required to enable the future implementation of the bikeway by MCDOT. This includes dedicating land or establishing easements where the future bikeway will go and ensuring that utilities, streetscape improvements and landscaping do not conflict with its future implementation. Utilities and major streetscape elements, such as trees, should be located in such a way as to avoid the need for removal and reconstruction when a bicycle facility is later implemented. For striped bikeways, this includes paving shoulders that will be later marked as striped bikeways. The prioritized concept 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 additional standards:

- Developers with projects on non-master planned streets must implement the general bikeway application in Table X.
- 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 should be determined by the County and Planning Department staff during a concept plan study, a facility planning study or the development review process, whichever comes first.

Implementation through public facility projects

While the capital improvement program and the development approval process are the major mechanisms for implementing bikeways, other county projects offer the ability to implement bikeway projects. Schools, libraries, recreation centers and other public facilities are all important destinations that can benefit from and contribute to bicycling in Montgomery County. While it is preferable that these county projects will implement master-planned bikeways as part of their projects, at a minimum they must dedicate right-of-way for the bikeway and not make it more difficult to implement them. Therefore, 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 within the site. This not only includes the provision of very low stress bikeways that are appropriate for people of all ages and bicycling abilities, but also how to securely store their bicycle while using the public facility.

design standards

Bicycle facilities must be high-quality to attract and retain riders from all backgrounds and bicycling abilities. For example, bike lanes designed without gutter seams, separated bikeways that are wide enough to accommodate expected bicycle volumes and off-street bikeways that are 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:

- Design Speed: Trails and sidepaths should be designed to enable a design speed of 12 mph in urban areas and 20 mph in suburban areas.
- Bikeway Width: A bicycling network that allows people of all ages and bicycling abilities to safely and conveniently use trails and sidepaths requires constructing a bicycling network that is sufficiently wide to enable side-by-side bicycling and passing. Trails and sidepaths should be a minimum of 10 feet wide. 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 where the very 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 need to be designed to withstand vehicle loading since maintenance trucks will use them and to withstand the growth of tree roots. These design requirements may result in different designs for subgrade and pavement thicknesses based on soil conditions. Per the AASHTO Guide for the Development of Bicycle Facilities, shared use paths, at a minimum, should have a 6-inch total pavement depth, including the surface course (asphalt or Portland cement concrete) 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 should consider traffic control or grade separation at all mid-block crossings.
- Driveways: Driveways must be consolidated to the extent possible as part of development approvals and capital projects. Where driveways remain, they must improve sight lines for all users, reduce the speed of traffic and provide visual cues to motorists to look for pedestrians and bicyclists. Montgomery County should 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 increase use during the evening, especially during winter months

when the sun sets earlier. While bicycles lights help with safe bicycling, they are insufficient to create a secure environment and are not typically used by pedestrians.

- Buffer from Traffic: A minimum 5-foot-wide buffer is needed from traffic. Wider buffers are appropriate along roads with higher design speeds.
- Straight Obstructions: Sidepaths must be direct and free from obstructions.

Pavement cracking is common along sidepaths.

separated bike lanes

Jurisdictions across the United States are using different approaches to implement separated bike lanes. Many are constructing these bikeways as low-cost retrofits projects using flexible delineator posts and paint within the existing right-of-way, while others are constructing more permanent forms of separation, such as curb-separated bike lanes, that represent an ultimate design standard. Although low-cost separation types can be easier to implement, agencies have noted maintenance costs and issues with aesthetics, and some separation types provide a lower level of protection from adjacent automobile traffic. On the other hand, permanent forms of separation can provide a higher level of separation from traffic and can be more aesthetically pleasing, though they often carry a higher cost.

types of separation

Lower-cost retrofits or demonstration projects allow for quick implementation, provide responsiveness to public demands and allow ongoing evaluation. Separation types for interim separated bike lanes

often include non-permanent separation, such as flexible delineator posts, planters, parking stops or concrete barriers. Interim approaches allow agencies to:

- Test the separated bike lane configuration for bicyclists and traffic operations.
- Evaluate public reaction, design performance and safety effectiveness.
- Make changes if necessary.
- Transition to permanent design.

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

Permanent separation provides a high level of protection and often have greater potential for placemaking, quality aesthetics and integration with features such as green stormwater management infrastructure. Examples of permanent separation include rigid bollards with curbs[8], raised medians and raised separated bike lanes at an intermediate or sidewalk level. Each of these separation types provides an increasingly higher level of bicyclist comfort, protection from traffic, and opportunity for improved aesthetics within the streetscape. Permanent separation could reduce maintenance costs associated with temporary separation and would improve durability and bicyclists' safety on higher volume roadways.

[8] Removable rigid bollards do not constitute a permanent design.

A permanent one-way separated bike lane (Source: Toole Design Group)

Table X reviews the different methods for creating separated bike lanes and describes the level of protection and comfort provided by such lanes to bicyclists, as well as aesthetics, costs and other considerations.

TABLE 1: BIKE LANE SEPARATION TYPES: BENEFITS AND CONSIDERATIONS

SEPARATION TYPE	LEVEL OF COMFORT/ PROTECTION	AESTHETICS	CONSIDERATIONS	CAPITAL COST	OPERATING COST
Flexible Delineator Posts	May not offer a high level of comfort to some riders due to lack of constant of separation material. May be less suitable for young children due to the permeability of the separation.	Less attractive than some other separation types. Multiple options for post types (color, shape, etc.).	Maintenance/ durability issues. May require closer spacing if parking encroachment is an issue. Easily accommodate emergency vehicle access. Fewest storm water/ drainage implications.	Low: easy to install/ remove.	Low to medium, depending on frequency of damage.
Parking Stops/ Precast Surface-Mounted Medians	May not offer a high level of comfort due to limited height. Low profile reduces risks of pedal strikes.	Can be less attractive than some other separation types. Multiple options (color, pattern, etc.) for parking stop and precast median types.	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. Low impact on storm water drainage.	Low to medium.	Low
Planter Boxes	High comfort due to heft of planters and consistent wall of separation from traffic.	Provides enhancement to streetscape with plantings. Multiple options for planter choice (size, color, shape, etc.).	Higher long-term maintenance costs (landscaping). May not be appropriate for higher-speed roadways (crashworthiness). Additional bike lane width required to provide offset from vertical obstruction. Lower impact on drainage if placed with spaces between planter boxes.	Low to medium.	Medium to high.

Example of Flexible Delineator Posts

Example of Parking Stops/ Precast Surface-Mounted Medians

Example of Planter Boxes

SEPARATION TYPE	LEVEL OF COMFORT/ PROTECTION	AESTHETICS	CONSIDERATIONS	CAPITAL COST	OPERATING COST
Concrete Barriers	High level of protection due to consistent wall and heft of separation.	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.	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.	Medium	Low
Rigid Bollards	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.	Can add to aesthetic of streetscape in bollard choice and integrates with existing or desired design.	May not be appropriate on higher speed roadways (crashworthiness). May require closer spacing if parking encroachment is an issue. Low impact on storm water drainage.	Medium	Low
Raised Medians	High level of comfort due to durability of median, potentially enhanced with plantings that provide additional height and sense of separation.	With plantings, can add to streetscape aesthetic. Plantings will require additional maintenance.	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.	High	Low to high (depending on planting).
Raised Lane	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.	Choice of pavement types for bike lane, buffers and sidewalk materials can enhance streetscape aesthetic.	Transitions at intersections, driveways and pedestrian crossings require additional consideration. Greater flexibility for curb reveal and drainage. May necessitate moving utility locations.	High	Low

Example of Concrete Barriers

Example of Raised Medians

Example of Rigid Bollards

Example of Raised Lane

approach to implementing separated bike lanes

The following approach divides separated bike lane implementation into two stages that will provide flexibility in creating a network of low-stress facilities across Montgomery County.

While the goal of separated bike lane implementation in the county should be permanent separation, there are many cases where that type of construction will not be immediately feasible. Interim solutions can offer substantial benefits over the status quo. This master plan recommends pursuing interim designs when:

- Project constraints, such as available right-of-way or funding, would not allow implementation of a permanent design in the short-term. Interim designs should include plans for transitioning to a permanent design after the initial evaluation or as conditions allow for implementation.
- When interim separation will be upgraded by longer term 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.

This master plan recommends pursuing permanent designs when:

- Private development is required to implement frontage improvements.

- The bikeway will be along a new road that will be constructed by either public entities 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. This Plan supports striped bikeways where they are recommended in the bikeways section and on primary residential streets or other non-commercial streets where the posted speed limit does not exceed 30 mph, where there are no more than three lanes of traffic, and where traffic volumes do not exceed 6,000 vehicles per day. 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 installed, the space can later be repurposed to install a master-planned recommended bikeway or to achieve another county purpose.

implementing separated bike lanes in constrained corridors

In much of Montgomery County, street right-of-way is limited and there are often competing demands for how to use 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 right-of-way means 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 elements to prioritize 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/beautification are part of the design) and calming traffic (if lane narrowing/curb radii improvements are part of the design).

separated bike lane streetscape zones

When street right-of-way is limited, the installation of a separated bike lane can affect several streetscape zones. Starting at the building faces and moving toward the street centerline, the zones are as described below and shown in Figure X:

1) Sidewalk: The area designated for pedestrian travel.
2) Sidewalk Buffer: The area located between the separated bike lane and the sidewalk. Its presence helps to discourage encroachment between bicyclists and pedestrians.
3) Separated Bike Lane: The bicyclist operating space located between the street buffer and the sidewalk buffer.
4) 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 to create a low-stress bicycling experience.
5) Parking Lane: Paved areas adjacent to the street curb are places where motor vehicles can be stored when not in use.
6) Travel Lane: Paved area of a street that carries automobile traffic through a corridor.

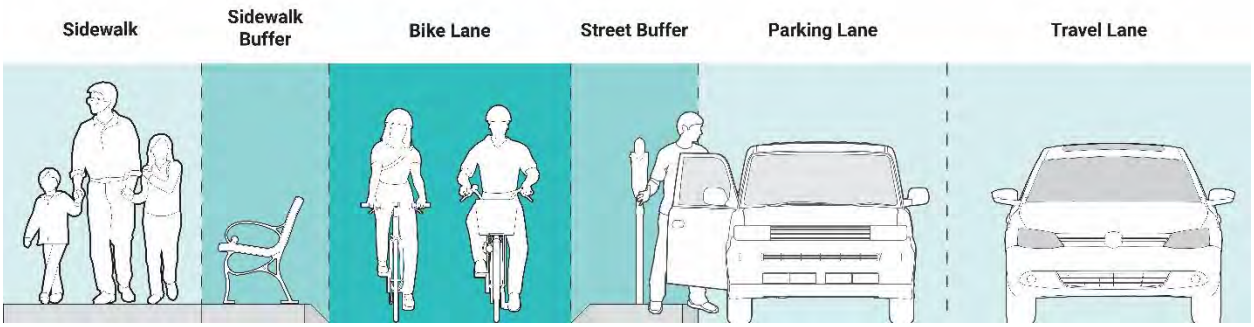


Figure X. Zones of a separated bike lane street

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.

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, though 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.[9] 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 to 10- and 11-foot-wide lanes 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, travel 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.

[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.

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.

defining street types

This section presents four different street types and recommends a hierarchy that can help planners and implementers 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 are streets that carry significant traffic volumes and are major regional travel arteries. Roads that fall into this street type include Georgia Avenue and Colesville Road.

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 rely on ample pedestrian space as an essential part of their public realm, facilitating commerce and social exchange.

On-Street Parking Priority: These are streets with high-demand 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.

In addition to these street types, any street may also serve as a transit priority street when high-frequency or high-ridership transit routes are present. In these cases, narrowing the outside travel lane to the minimum width, installing corner islands or other streetscape changes that may hinder bus operations may require close consultation with transit operators.

prioritization

SECTION NOT YET READY FOR REVIEW

MONITORING THE VISION

The fourth step of the Bicycle Master Plan is to establish a biennial monitoring program led by the Montgomery County Planning Department that tracks how well the vision of the plan is being fulfilled through the goals and objectives, and enables transparency and accountability in plan implementation. The monitoring template below reflects each of the plan's objectives and includes target values for the plan to achieve in 2028 and 2038, 10 and 20 years after the plan is adopted. The report will be reviewed by the Planning Board and approved by the County Council.

A template for a detailed biennial monitoring report is provided in Appendix A.

Data in progress.

Objective	Metric		Existing	Target		Full Build
			2018	2028	2038	
Goal 1: Increase bicycling rates in Montgomery County						
1.1	Percentage of residents who commute by bicycle.		0.5% (2016)	TBD	TBD	TBD
1.2	Percentage of commuters who bicycle as part of their commute to a Transportation Management District.	Bethesda	Data Not Yet Surveyed	Data Not Yet Surveyed	Data Not Yet Surveyed	Data Not Yet Surveyed
		Friendship Heights				
		North Bethesda				
		Shady Grove				
		Silver Spring				
		White Oak				
1.3	Percentage of boardings at rail stations that access the station by bicycle.	Red Line	TBD	TBD	TBD	TBD
		Brunswick Line	TBD	TBD	TBD	TBD
		Purple Line	n/a	TBD	TBD	TBD
1.4	Percentage of public school students who travel to school by bicycle.	Elementary Schools	Data Not Yet Surveyed	Data Not Yet Surveyed	Data Not Yet Surveyed	Data Not Yet Surveyed
		Middle Schools				
		High Schools				

Objective	Metric		Existing	Target		Full Build
			2018	2028	2038	
Goal 2: Create a highly-connected, convenient and low-stress bicycling network						
2.1	Percentage of potential bicycle trips that can be made on a low-stress bicycle network.		TBD	TBD	TBD	TBD
2.2	Percentage of dwelling units within 2.0 miles of Red Line, Brunswick Line, Purple Line, and Corridor Cities Transitway stations that can access the station on a low-stress bicycling network.	Red Line	10%	TBD	TBD	73%
		Brunswick Line	10%	TBD	TBD	59%
		Purple Line	4%	TBD	TBD	77%
		Corridor Cities Transitway	14%	TBD	TBD	73%
2.3	Percentage of dwelling units located within the attendance zone of elementary, middle and high schools that are connected to each school through a low-stress bicycle network.	Elementary Schools	25%	TBD	TBD	55%
		Middle Schools	11%	TBD	TBD	43%
		High Schools	6%	TBD	TBD	32%
2.4	Percentage of dwelling units within 2.0 miles of a public facility will be connected to that facility through a low-stress bicycling network.	Public Libraries	TBD	TBD	TBD	80%
		Recreation Centers	TBD	TBD	TBD	66%
		Recreational and Regional Parks	TBD	TBD	TBD	79%
2.5	Number of rail stations in Montgomery County with a bike station.	Red Line	0	TBD	TBD	10
		MARC Brunswick Line	0	TBD	TBD	6
		Purple Line	0	TBD	TBD	9
		Corridor Cities Transitway	0	TBD	TBD	4
2.6	Percentage of Montgomery County public schools with at least 1 industry standard short-term bicycle parking for each 20 students of planned capacity.	Elementary Schools	1%	TBD	TBD	100%
		Middle Schools	0%	TBD	TBD	100%
		High Schools	0%	TBD	TBD	100%
2.7	Percentage of blocks in 19 Bicycle-Pedestrian Priority Areas with sufficient bicycle parking.		15%	TBD	TBD	80%
2.8	Percentage of Montgomery County public facilities with 1 industry standard short-term bicycle parking space per 10,000 square feet of floor area.	Public Libraries	15%	TBD	TBD	100%
		Recreation Centers	15%	TBD	TBD	100%
2.9	Percentage of Montgomery County regional and recreational park facilities that have industry standard bike racks.		TBD	TBD	TBD	100%

Objective	Metric	Existing	Target		Full Build
		2018	2028	2038	
Goal 3: Provide equal access to low-stress bicycling for all members of the community					
3.1	Percentage of potential bicycle trips that can be made on a low-stress bicycle network in areas where the median income is below ##% of the County average median income.	TBD	TBD	TBD	TBD
3.2	Percentage of dwelling units within 0.5 miles of the nearest Metrobus or RideOn bus stop that will be able to access the bus stop on a low-stress bicycling network in areas where the median income is below ##% of the County average median income.	TBD	TBD	TBD	TBD
Goal 4: Improve the safety of bicycling					
4.1	The ratio of bicycle crashes to bicycle trips at the ## highest crash locations in the County.	TBD	TBD	TBD	TBD
4.2	The number of bicycling fatalities and serious injuries per year.	20 (2016)	TBD	0	0

OUTREACH

INTRO

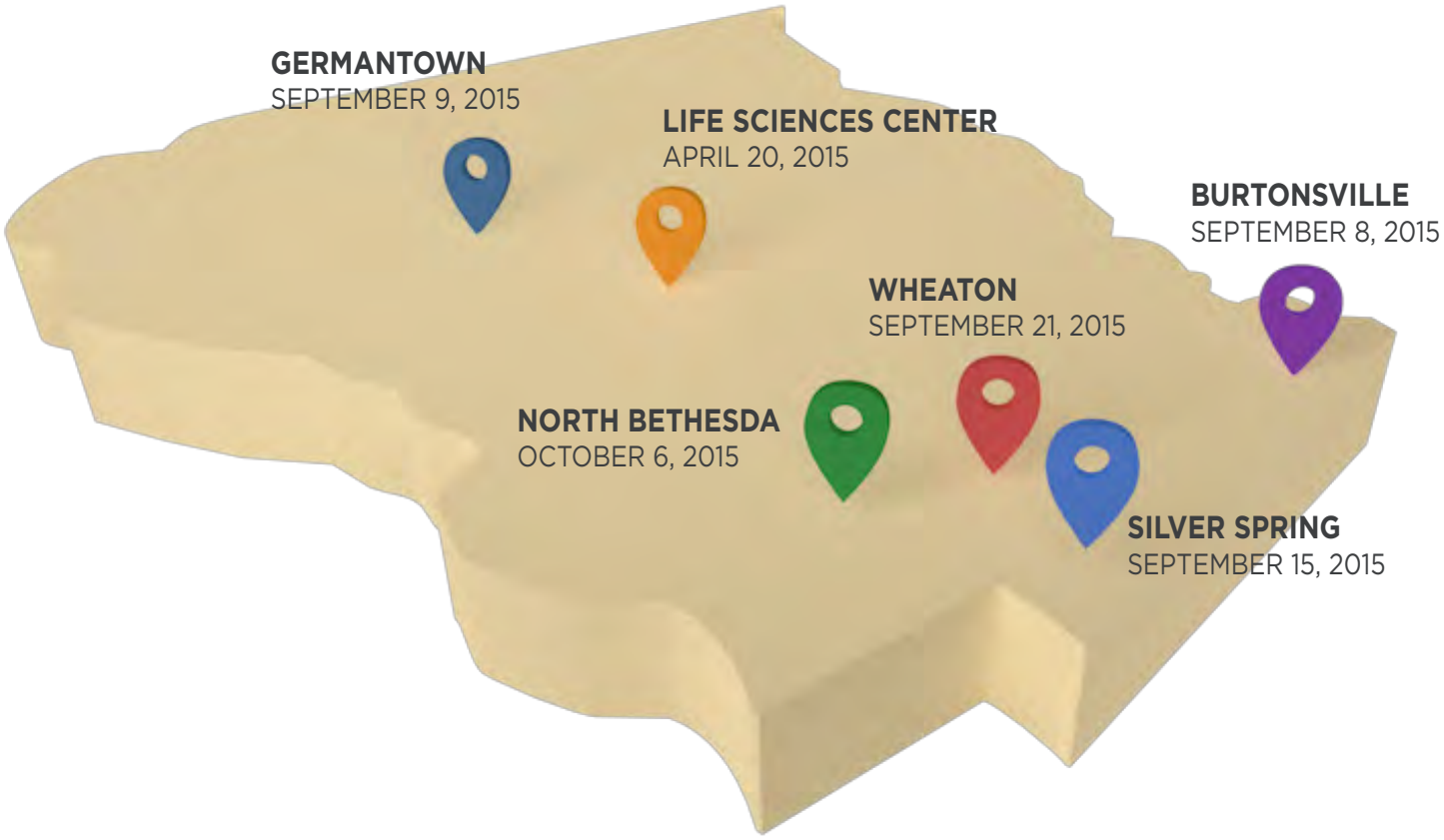
Conducting a long-term master plan can be demanding. Keeping the public engaged in the planning effort for more than two years can be difficult. How do you keep your stakeholders actively involved after the initial rush of outreach efforts winds down? How do you keep your plan's outreach exciting and relevant while also building support the bicycling community?

The outreach program for the Bicycle Master Plan has been strategic, thoughtful and effective in its comprehensive approach to innovative community engagement. By implementing a strategic communication plan, staff followed a "road map" focused on audience, messaging and deliverables in order to create a strong and consistent brand for the plan. The resulting feedback from stakeholders and media exposure showed the communication plan worked. Outreach for the Bicycle Master Plan started with the creation and execution of a communication plan to maximize engagement with the public. The following pages outline the tools used to achieve the communication goals for the Bicycle Master Plan.

COMMUNITY MEETINGS

Public meetings are an important way to engage broad cross section of community members in a master plan. They allow staff to engage directly with the public, explain concepts that are difficult to convey on paper and allow for informative conversations among planners and residents. When you conduct a countywide plan, one or two meetings are insufficient. In 2015, the Bicycle Master Plan team conducted six public meetings in different areas of the county to engage a broader cross section of the public.

KICK-OFF MEETINGS



PRELIMINARY BIKEWAY RECOMMENDATIONS

Five public meetings to review the preliminary bikeway recommendations for the Bicycle Master Plan at community meetings held in June 2017.

Each event consisted of an open house and informal discussion from 4 to 7 p.m. when attendees met with Planning Department staff to review and discuss the bikeway recommendations. The open house was followed by a bikeway recommendations presentation and a question-and-answer session.


GERMANTOWN
JUNE 14, 2017
OLNEY
JUNE 12, 2017
BURTONSVILLE
JUNE 22, 2017
BETHESDA
JUNE 8, 2017
SILVER SPRING
JUNE 6, 2017

COMMUNITY EVENTS

Community events enabled the public to engage with the Bicycle Master Plan team in informal settings. From community-led bike rides that allow the public to identify bicycling concerns in their neighborhoods to Park(ing) Day where the staff simulated bicycle corrals and separated bike lanes, the events were fun and informative for planners and County residents.

GREAT MOCO BIKE SUMMITS

The annual Great MoCo Bike Summit provided a fantastic opportunity to update the community on the status of the Bicycle Master Plan. In 2015, the Planning Department created a gigantic wall map of the county. Attendees wrote their thoughts and concerns about bicycling on the map. This hand-copy map was the foundation for the online, GIS-based cycling concerns map where feedback could be collected electronically. Summits were held in Silver Spring (2015) and Rockville (2016).

COMMUNITY BIKE RIDES

The planning team wanted to "ride the talk" with free community bike rides that toured various areas of the County.

OLNEY

SATURDAY, MAY 7, 2016

BURTONSVILLE/ FAIRLAND

SATURDAY, JULY 24, 2016

COLEVILLE

SUNDAY, OCTOBER 30, 2016

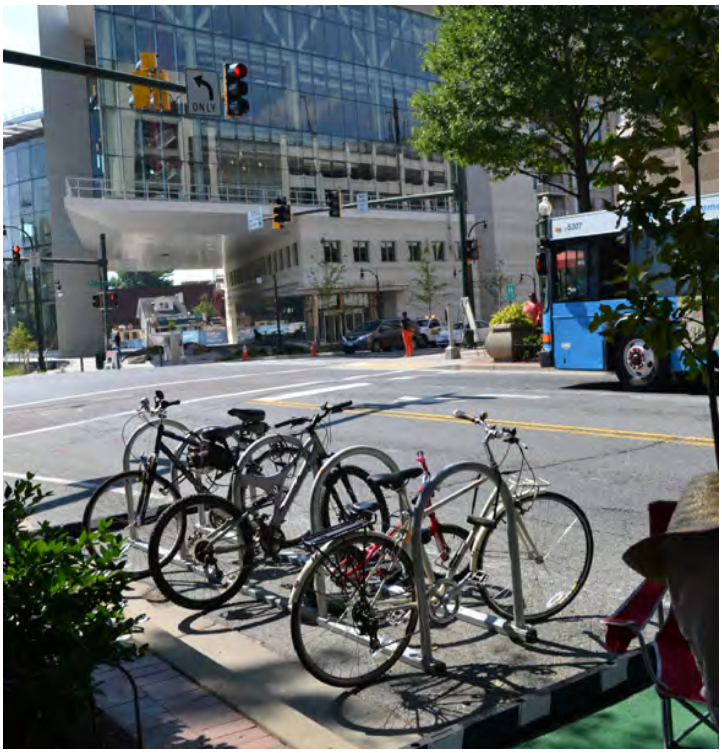
WHEATON

SATURDAY, JUNE 17, 2017

THE WHEATON COMMUNITY BIKE RIDE

PARK(ING) DAY

In 2015, 2016 and 2017, the Bicycle Master Plan team took to Downtown Silver Spring to transform parking spaces into educational and interactive displays of bicycle concepts. In 2015, the team chose to feature the benefits of bicycle parking and, in 2016, the team created a simulated separated bike lane using stationary bicycles and potted plants (pictured right). In 2017, the team featured poster-sized pages from their "low-stress" coloring book (see page 28-29 for more details on the coloring book).



Photos: (clockwise from top right) Bike coral in 2015, simulated separated bike lane in 2016, low-stress coloring book in 2017.

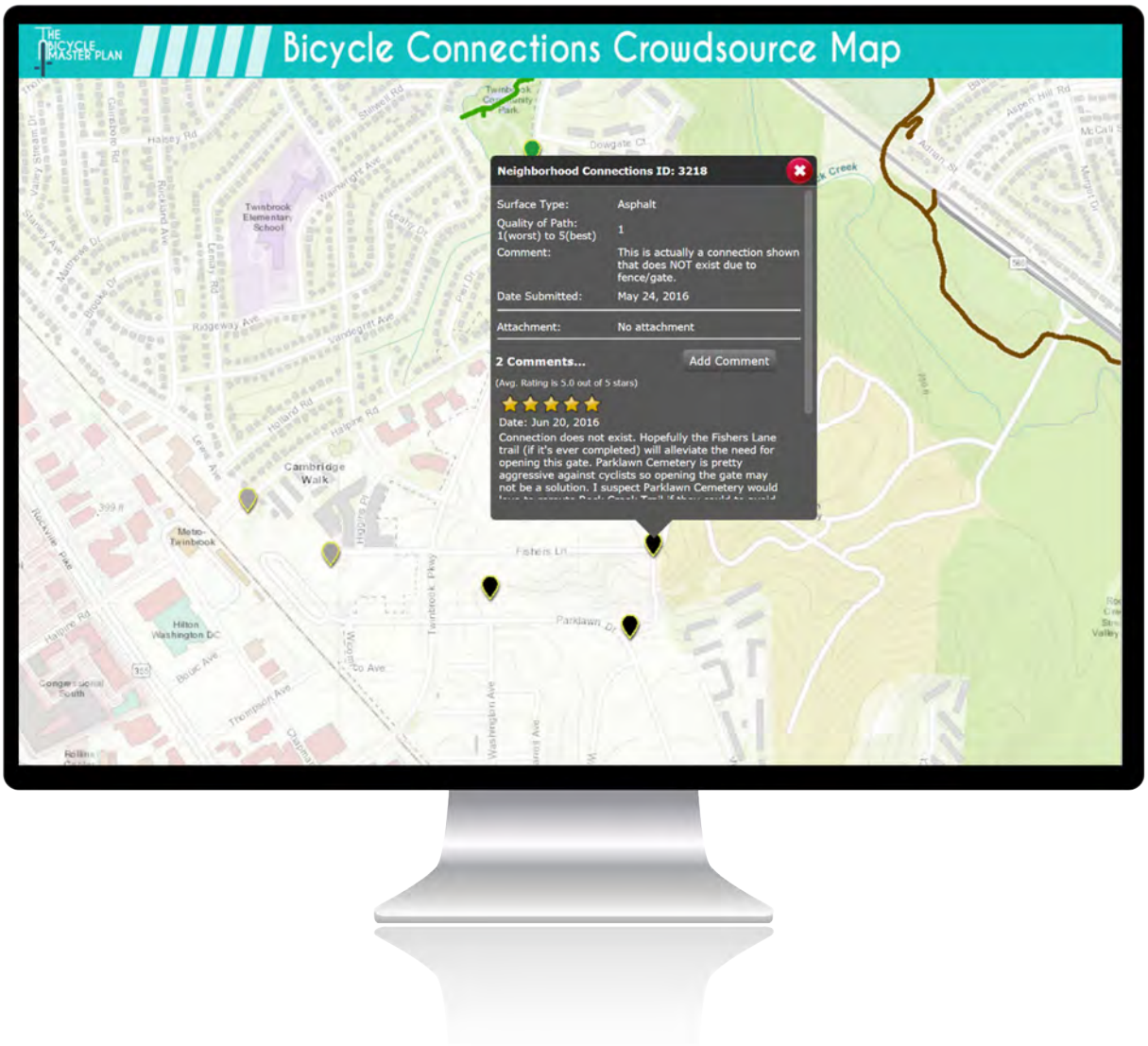

BURGER
IT'S LIKE TO RIDE IN A
ED BIKE LANE!
PROTECTED BIKE LANES OR CYCLE TRACKS) PROVIDE A SAFER,
RIDE YOUR BICYCLE. THESE BIKEWAYS PROVIDE A LOW-STRESS
NG PHYSICAL SEPARATION FROM BOTH MOTOR VEHICLES AND

ONLINE OUTREACH

Online tools enable the Planning Department to engage members of the community who are unable or unwilling to attend public meetings and events. These methods include digital feedback maps, such as the **Cycling Concerns Feedback Map** and the **Bikeway ReactMap**, crowd sourcing maps, such as the **Cycling Connections Map**, and online tools, such as the **Bicycle Stress Map**.

CYCLING CONNECTIONS

Neighborhood connections are small bikeways that are vital for community connectivity but are oftentimes so short that they do not show up in county maps. To increase the number of neighborhood connectors in its database, the Planning Department created a crowdsource map and asked the public to identify location of neighborhood connections. We received nearly 200 comments indicating possible locations.

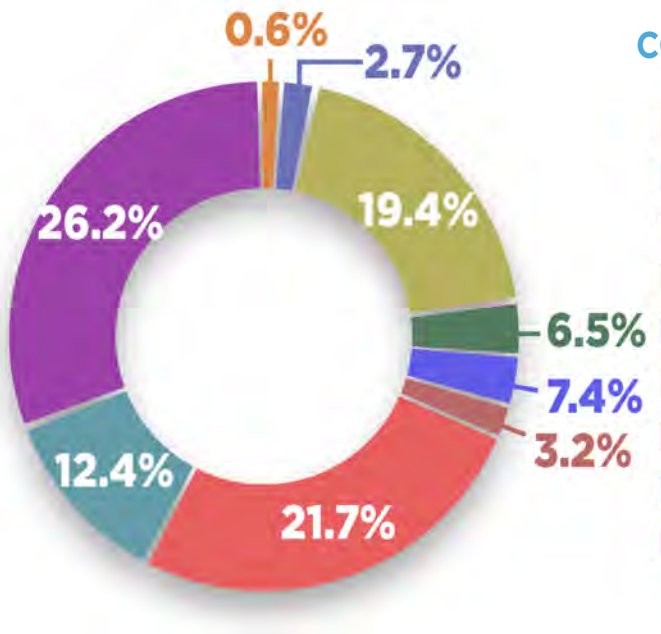


CYCLING CONCERNS FEEDBACK MAP

In September and October 2015, Montgomery County residents were invited to share their concerns and ideas, and provide comments on the **Cycling Concerns Feedback Map**, an interactive tool for communicating with the public.

1,896 TOTAL COMMENTS

1,191 UNIQUE POINTS OF INTEREST



COMMENTS BY THE NUMBERS

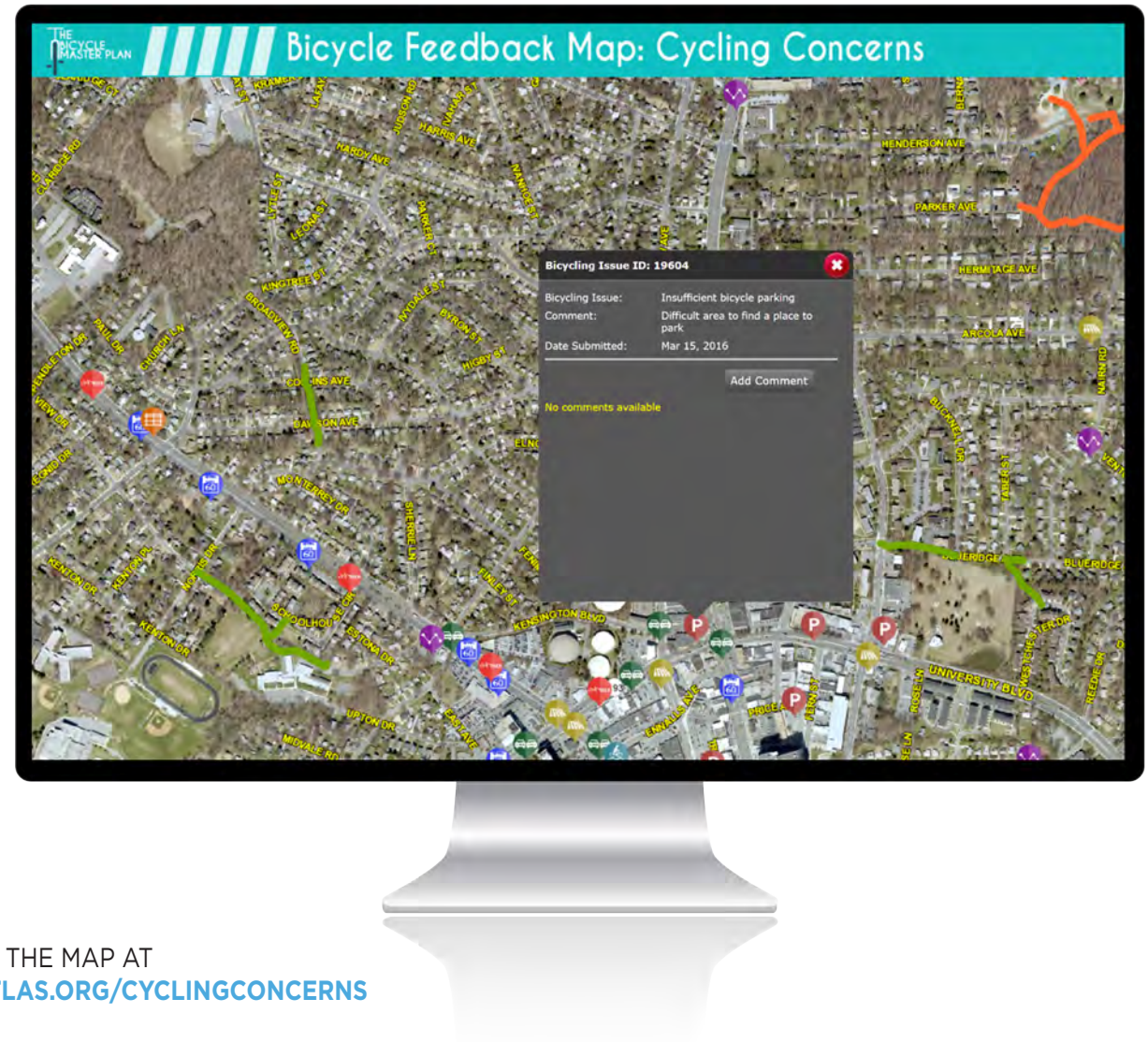
- **BICYCLE-SAFE GRATE NEEDED** (12 COMMENTS)
- **CARS BLOCK BIKEWAY** (51 COMMENTS)
- **DIFFICULT CROSSING** (367 COMMENTS)
- **HIGH TRAFFIC VOLUME** (123 COMMENTS)
- **EXCESSIVE SPEED** (140 COMMENTS)
- **INSUFFICIENT BICYCLE PARKING** (60 COMMENTS)
- **OTHER CONCERN** (411 COMMENTS)
- **POOR PAVEMENT** (236 COMMENTS)
- **POOR / NO CONNECTION** (496 COMMENTS)

TOP 12 POLICY AREAS WITH THE MOST CONCERNS

SILVER SPRING/TAKOMA PARK: 296
BETHESDA/CHEVY CHASE: 272
KENSINGTON/WHEATON: 233
BETHESDA CBD: 138
SILVER SPRING CBD: 126
RURAL EAST: 101
OLNEY: 95
NORTH BETHESDA: 86
ASPEN HILL: 63
FAIRLAND/COLESVILLE: 62
WHITE OAK: 56
ROCKVILLE CITY: 51

TOP 10 STREETS & ROADS WITH THE MOST CONCERNS

MACARTHUR BLVD: 29
CAPITAL CRESCENT TRAIL: 28
WOODMONT AVENUE: 24
GEORGIA AVENUE: 22
NEW HAMPSHIRE AVENUE: 20
VEIRS MILL ROAD: 18
GEORGETOWN BRANCH TRAIL: 18
COLESVILLE ROAD: 16
BEACH DRIVE: 16
WAYNE AVENUE: 14



VIEW THE MAP AT
MCATLAS.ORG/CYCLINGCONCERNS

TYPES OF CONCERNS

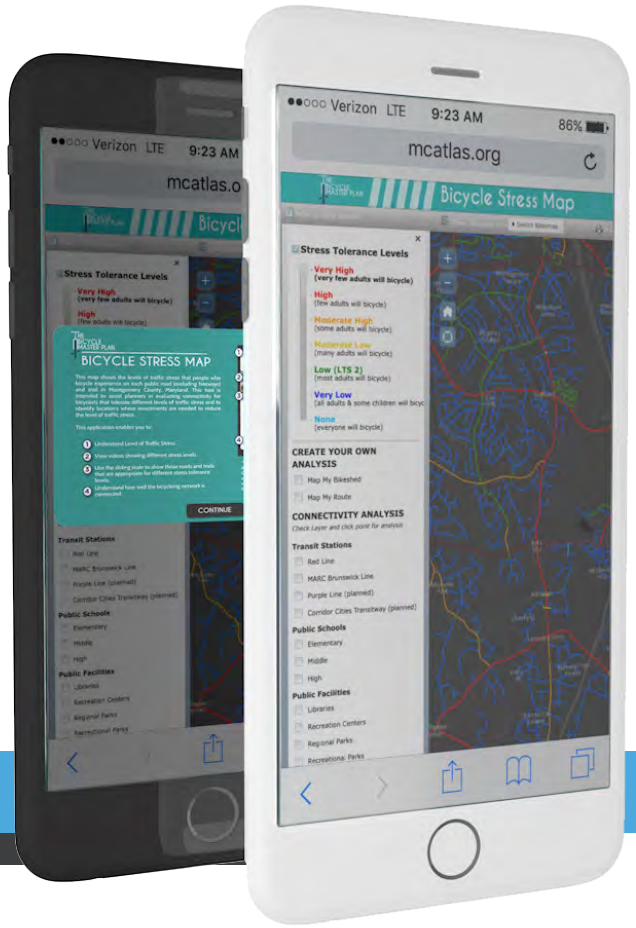
- Difficult Crossing
- Poor/No Connection
- Excessive Speed
- High Traffic Volume
- Insufficient Bicycle Parking
- Bicycle-Safe Grate Needed
- Cars Block Bikeway
- Poor Pavement
- Other

EXISTING BIKEWAYS

- Bike Lanes
- Separated Bike Lanes
- Shared Use Paths
- Hard Surface Park Trails

BICYCLE STRESS MAP

> The map provides a **data-driven approach** to understanding bicycle connectivity by linking the traffic stress evaluation to the goals, objectives and performance metrics outlined in the county's Bicycle Master Plan.
>
> - American Planning Association (APA)



» MCATLAS.ORG/BIKESTRESS

The **Bicycle Stress Map** is a publicly accessible tool located on the Montgomery County Planning Department website at www.mcatlas.org/bikestress. It shows the stress levels encountered when bicycling in different areas of Montgomery County, from very low stress (appropriate for children) to very high stress (appropriate for only about one percent of adults). Videos linked to the map explain the experience of bicycling in areas with different traffic stress conditions.

The Bicycle Stress Map was launched in April 2016 and has been widely embraced for highlighting how difficult it is for the average person to travel by bicycle in Montgomery County. While most adults can bicycle on 78 percent of the road miles in the county, only about 20 percent of trips can be completed on a low-stress bicycling network.

3,500+ MILES

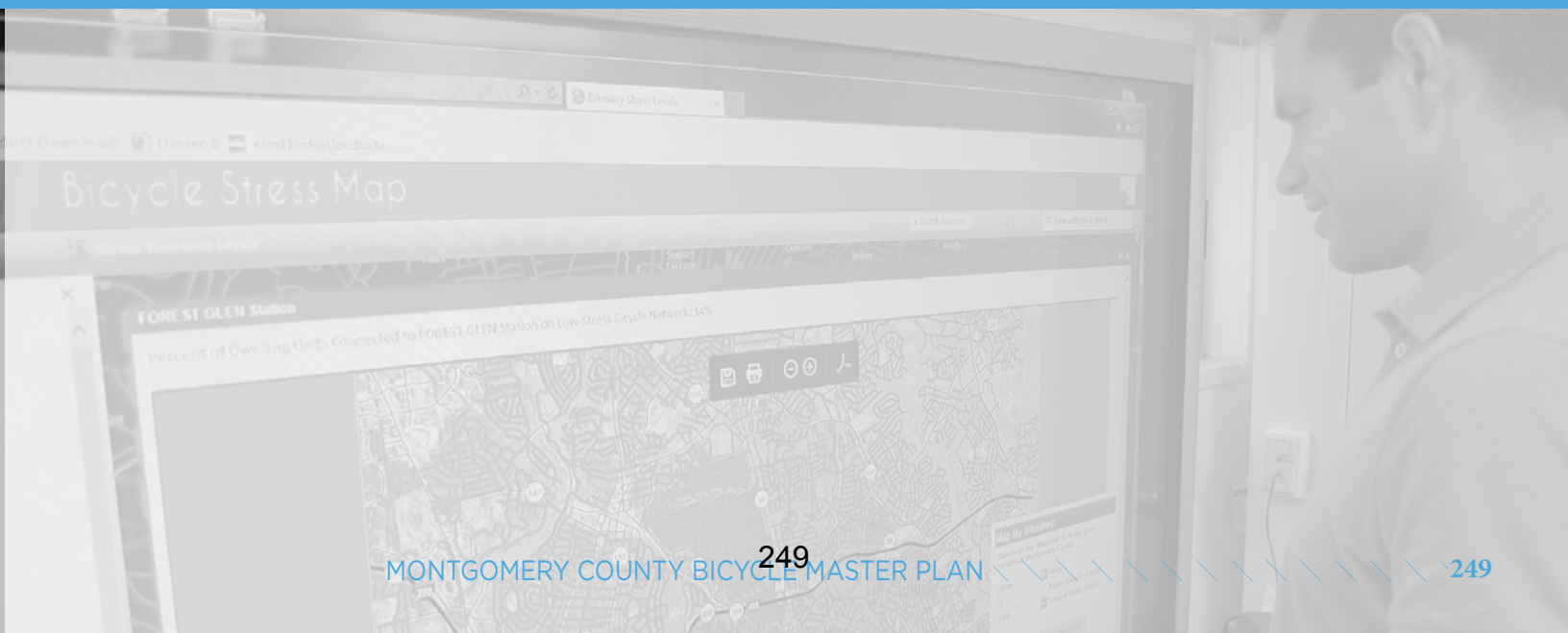
of roads and trails were assigned a level of traffic stress during the creation of the map by Montgomery County Planning Department staff. Project team members used a combination of online resources as well as site visits to evaluate the conditions of the roads.

AMERICAN PLANNING ASSOCIATION

2017 NATIONAL ACHIEVEMENT AWARD TRANSPORTATION PLANNING | GOLD

AMERICAN PLANNING ASSOCIATION - NATIONAL CAPITAL AREA CHAPTER

2016 AWARD FOR AN OUTSTANDING IMPLEMENTATION TOOL



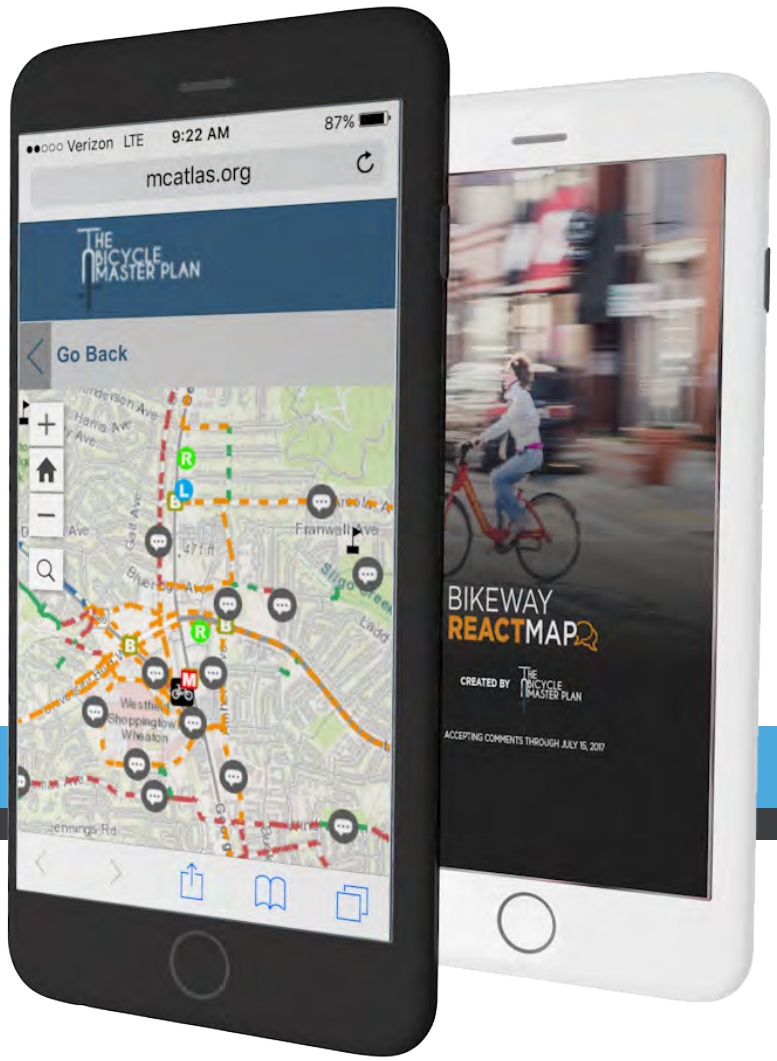
BIKEWAY REACTMAP

The Bikeway ReactMap encouraged the public to comment on the Bicycle Master Plan's preliminary bikeway recommendations. Users could view the map legend, review a brief description of bikeway facility types and add comments about the bikeway recommendations.

1,489 TOTAL COMMENTS

4,699 TOTAL PAGE VIEWS

» MCATLAST.ORG/BIKEREACT



TOP 11 LOCATIONS WITH MOST COMMENTS

Woodmont Ave & Bethesda Ave	12
Bethesda Trolley Trail Crossing Tuckerman La	10
Proposed New Bridge over I-495 at Colesville Rd	9
Grosvenor La East of MD 355	9
Woodmont Ave Between Elm St and Bethesda Ave	8
Proposed Trail along I-495 between Stoneybrook Dr and Linden La	8
Stoneybrook Dr between Capitol View Ave and Kent St	6
Capital Crescent Trail at Little Falls Parkway	7
Oakview Dr at Northwest Branch Trail	6
Maple Ave at DC Line	6
Fenton Street south of Silver Spring Ave	6

TOP 10 POLICY AREAS WITH MOST COMMENTS

Kensington/Wheaton	251
Silver Spring/Takoma Park	187
Bethesda/Chevy Chase	173
North Bethesda	85
Silver Spring CBD	82
Bethesda CBD	80
Fairland/Colesville	78
Rural East	85
Rural West	52
Aspen Hill	49

TOP 13 STREETS AND TRAILS WITH MOST COMMENTS

Fenton St	42
Capital Crescent Trail	33
Old Georgetown Rd	26
Bethesda Trolley Trail	26
Capitol View Ave	25
Beach Dr	20
New Hampshire Ave	19
Intercounty Connector Trail	18
Carroll Ave	17
Randolph Rd	16
Rockville Pike	16
Maple Ave	16
Woodmont Ave	16

SOCIAL MEDIA

To reach as many stakeholders as possible, the Bicycle Master Plan team launched a Twitter account and pushed information through the Planning Department's Facebook account. Posts about updates on the plan, videos and photos provided a place to talk about the plan that extended beyond community meetings and press releases.

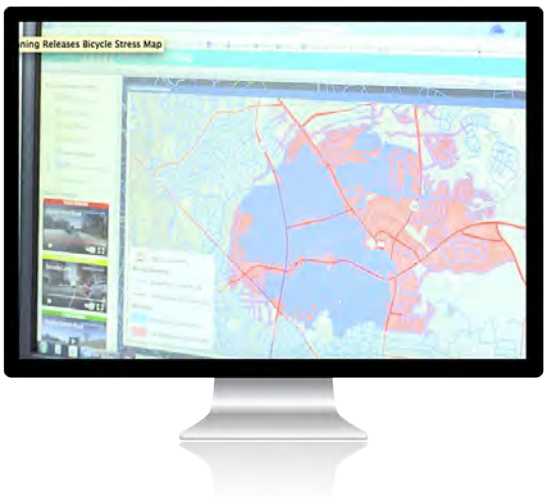
TWITTER | @MCBIKEPLAN
500+ Followers

E-LETTER
800+ Subscribers

VIDEO

BICYCLE MASTER PLAN PROMO

2015 MarCom Awards
Platinum Award Winner



BICYCLE STRESS MAP RELEASE

PARK(ING) DAY 2016

PRELIMINARY BIKEWAY RECOMMENDATIONS MEETING

VIDEOS CAN BE VIEWED AT YOUTUBE.COM/MONTGOMERYPLANNING

COMMUNITY ADVISORY GROUP

In 2016, the Planning Board appointed a diverse 21 member community advisory group to provide advice to the Bicycle Master Plan team. This group includes eight members representativing different areas of the County, as well as more than 10 representatives of community organizations and interest groups.


Scope of Work
WABA
RIDE A BIKE
SAVE
BE A KID
LONGER
WEAR
EXPLORE
WABA.ORG

15+

MEETINGS

INNOVATIVE OUTREACH

While the Bicycle Master Plan will create a long-term vision for bicycling in Montgomery County, it is also a chance to build a strong bicycling community. Events such as the **photo contest** and the **low-stress coloring book** create fun opportunities to engage the public and encourage them to sign up for our newsletter, while providing valuable information about in the plan.

PHOTO CONTEST

In September and October 2016, the Planning Department held the bicycle photo contest to engage the public and choose images for the **Bicycle Master Plan** and other planning documents. The public voted on the winners using an online poll.

61 PHOTOS SUBMITTED

400+ VOTES

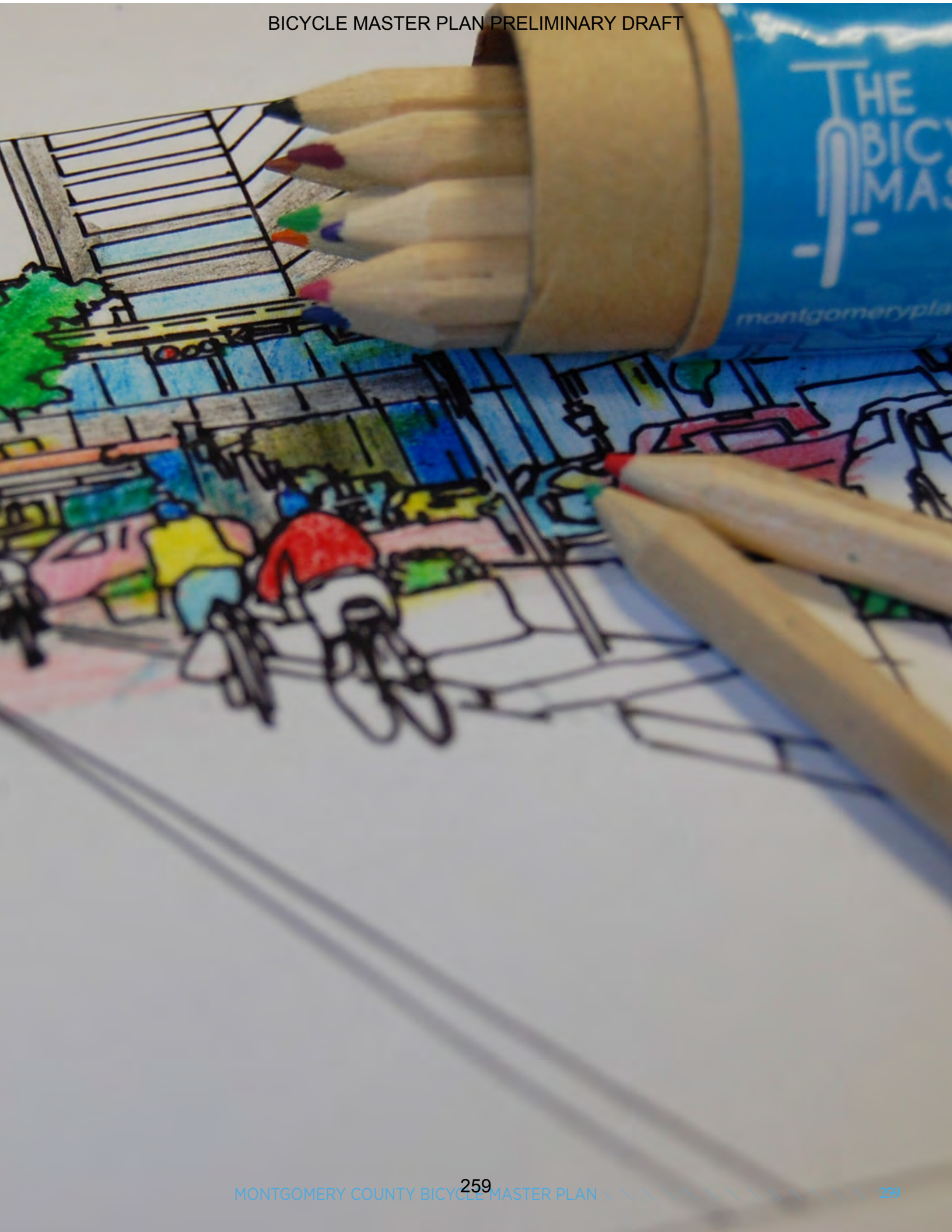
5 WINNING SELECTIONS

Photo: Winning Recreational Bicycling Photo By Scott Wilets

COLORING BOOK

A 34-page coloring book was made available to the public online in fall 2017 to present the types of bikeways included in the draft Bicycle Master Plan. Since the goal of the Plan is to create a low-stress bicycle network that will let people of all ages and abilities feel comfortable riding a bike, the book seemed fitting, since coloring has also been shown to be a stress-relieving activity. Each black and white page depicts a different type of bikeway, such as a neighborhood greenway, a separated bike lane and a trail. The community was invited to post their completed illustrations online to Facebook, Twitter or Instagram using hashtag #lowstressbiking.

258



TRANSIT ADS

WASHINGTON METROPOLIATAN AREA TRANSIT AUTHORITY (WMATA) DISPLAYS

The plan used a mix of English and Spanish outreach at key Metrorail stations and bus stops to reach a wider audience.

AD RUN SCHEDULE

Ads Ran in 2017

SHADY GROVE
7/3 - 7/30

WHITE FLINT
6/5 - 7/23

GROSVENOR-STRATHMORE
6/5 - 7/30

MEDICAL CENTER
6/5 - 7/30

BETHESDA
6/5 - 7/30

FRIENDSHIP HEIGHTS
6/5 - 7/23

SILVER SPRING
7/3-7/30

WHEATON
6/5 - 7/30

GLENMONT
6/5 - 7/6

Above: Artwork for the WMATA advertising campaign.

Right: The advertisement placed on the platform at the Shady Grove Metro Station.

BUS SHELTERS

AD LOCATIONS

Ads Ran From June 5 to July 2, 2017.

- MONTGOMERY VILLAGE
- WHITE OAK
- ASPEN HILL
- VEIRS MILL RD.
- LONG BRANCH

Above: Artwork for the bus shelter advertising campaign.

Left: The advertisement placed on the corner of University Boulevard and Piney Branch Road.

MEDIA COVERAGE

While the Bicycle Master Plan will create a long-term vision for bicycling in Montgomery County, it is also a chance to build a strong bicycling community. Events such as the **photo contest** and the **low-stress coloring book** create fun opportunities to engage the public and to encourage them to sign up for our newsletter, while providing valuable information about in Montgomery County that is included in the plan.

“

If done well, the **project could do more than make life easier for cyclists**: It could ease traffic, cut carbon emissions, and spur economic growth by drawing residents and visitors to newly accessible areas.

- Washington Post Editorial on June 21, 2015

”

NOTABLE PAPERS

“THIS MAP SHOWS MONTGOMERY COUNTY’S PROPOSED BIKEWAYS”
-Technically DC, June 14, 2017

“CYCLING STRESS MAP HELPS BIKERS AVOID TRICKY STREETS”
-Curbed, April 28, 2017

“HANDY ‘STRESS MAP’ HELPS CYCLISTS AVOID THE SCARIEST OF STREETS”
-Wired, April 26, 2017

“NEW MAP SHOWS SPOTS WHERE BICYCLISTS STRESS OUT DUE TO DANGER LEVEL”
-The Washington Post, April 7, 2016

“WITH MORE PEOPLE BIKING, LOCAL GOVERNMENTS ARE TRYING TO MAKE IT EASIER”
-WTOP, August 13, 2015

“COUNTY PLANNERS TO APPLY BICYCLING STRESS TEST”
-Bethesda Magazine, May 21, 2015

NOTABLE BLOGS

“KEEPING A BIKE PLAN IN HIGH GEAR: MONTGOMERY COUNTY’S PUBLIC ENGAGEMENT PLAN”
-American Planning Association (APA)

“CLOSING GAPS IN LOW-STRESS NETWORKS TO BRING BICYCLING TO MORE PEOPLE”
-Mobility Lab, June 20, 2017

“MONTGOMERY COUNTY AIMS TO BECOME A MODEL CYCLING COMMUNITY”
-Greater, Greater Washington, June 2, 2015

BIKE PLAN CONTRIBUTORS

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Bridget Schwiesow

Ryan Sigworth

Community Advisory Group

Joe Allen, Resident of Gaithersburg

Kristin Blackmon, Bethesda Transportation Solutions & Bethesda Urban Partnership

Eva Chavez, Student Representative

Jack Cochrane, Montgomery Bicycle Advocates

Denise Cohen, Potomac Pedalers

Stacy Cook, Resident of Bethesda

Paul Daisey, Resident of Colesville

Peggy Dennis, Montgomery County Civic Federation

Alison Dewey, Resident of North Bethesda

Darrel Drobnich, Pedestrian Bicycle Traffic Safety Advisory Committee

Jay Elvove, Silver Spring Citizens Advisory Board

Emma Evans, Hispanic Chamber of Commerce

Janice Freeman, African American Chamber of Commerce

Joe Fritsch, Resident of Olney

Peter Gray, Washington Area Bicyclist Association

Richard Hoye, Action Committee for Transit

Renato Mendoza, CASA de Maryland

Jude Miller, Montgomery County Chamber of Commerce

Shawn Punga, Mid-Atlantic Off-Road Enthusiasts

Phil Shapiro, Resident of Kemp Mill

Geri Rosenberg, Resident

Deborah Turton, Resident of Damascus