MANDATORY REFERRAL NO. MR2025022

PINEY BRANCH ROAD BIKEWAY



Description

This is a Mandatory Referral for the Montgomery County Department of Transportation proposal for separated bike lanes along Piney Branch Road. The project has two segments: between Sligo Creek Parkway and Greenwood Road, and between University Boulevard and New Hampshire Avenue. The proposed separated bike lanes connect to the striped bike lanes being built as part of the Purple Line transit project between Greenwood Road and University Boulevard.

COMPLETED: 08/26/2025

PLANNING BOARD HEARING DATE: 09/04/2025

MCPB ITEM NO. 09

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LOCATION

Piney Branch Road between Sligo Creek Parkway and Greenwood Avenue, and between University Boulevard and New Hampshire Avenue

MASTER PLAN

2018 Bicycle Master Plan2000 Silver Spring East Master Plan2023 Long Branch Sector Plan

COMPLETE STREETS AREA TYPE

Town Center, Suburban

APPLICANT

Montgomery County Department of Transportation

ACCEPTANCE DATE

June 11, 2025

REVIEW BASIS

Md. Land Use Article, Section 20-301, et seq.

Summary:

- Montgomery County Department of Transportation proposes to construct separated bike lanes between Sligo Creek Parkway and Greenwood Avenue, and between University Boulevard and New Hampshire Avenue.
- Staff recommends approval and transmittal of comments to the Montgomery County Department of Transportation.
- The Planning Board review of a Mandatory Referral is pursuant to the Land Use Article of the Maryland Annotated Code, Sections 20-301 et seq.

CONTENTS

| Section 1 – Comments | 2 |
|---|----|
| Section 2 – Introduction | 3 |
| Section 3 – Project Description | 3 |
| Project Description | 3 |
| Background | 4 |
| Surrounding Areas | 8 |
| Section 4 – Mandatory Referral Considerations | 9 |
| Section 5 – Mandatory Referral Analysis | 11 |
| Master Plan Consistency | 11 |
| Transportation Best Practices | 12 |
| Environment | 24 |
| Historic Preservation | 25 |
| Parks Department | 25 |
| Section 6 – Community Outreach | 25 |
| Section 7 – Conclusion | 25 |
| Section 8 – Attachments | 25 |

SECTION 1 - COMMENTS

Staff recommends approval and the transmittal of the following comments to the Montgomery County Department of Transportation:

- Redesign the intersection of Piney Branch Road and Manchester Road to:
 - o Provide a protected crossing of Piney Branch Road
 - o Improve how bicyclists travel between Manchester Road and the eastbound Piney Branch Road bike lanes.
- Reduce the speed limit on Piney Branch Road east of Carroll Avenue from 40mph to 35mph.
- Work with MDOT to add a flexpost buffer to the striped bike lanes that are to be constructed by the Purple Line project between Greenwood Avenue and University Boulevard by narrowing the motor vehicle travel lanes.
- Provide bikeway buffers and consider moving the westbound bikeway to the curbside between University Boulevard and 200 feet east.
- Tighten curb radii at all intersections and driveways in line with the Complete Streets Design Guide (CSDG) default radii (15 feet). Where wider turning radii may be necessary for larger vehicles or emergency operations, consider the use of mountable curbs or relocating the receiving leg stop bar to allow for encroachment.
- Redesign site access to the shopping complex at the southwest corner of Piney Branch Road at Flower Avenue to improve visibility and safety for all road users.
- Ensure the pedestrian environment along the Piney Branch Road corridor is improved in line with the Public Right-of-Way Accessibility Guidelines (PROWAG) and MCDOT's Accessible Design Guide.

SECTION 2 - INTRODUCTION

The Montgomery County Department of Transportation (MCDOT) proposes to construct separated bike lanes along Piney Branch Road between Sligo Creek Parkway and Greenwood Avenue, and between University Boulevard and New Hampshire Avenue in the Long Branch neighborhood, shown as red lines in Figure 1. The project transitions into the striped bike lanes being built by the Purple Line light rail project between Greenwood Avenue and University Boulevard. On the west end, the bikeway will connect to Sligo Creek Parkway and Sligo Creek Trail via a separate Montgomery Parks intersection redesign. On the east end, the bikeway will connect directly to the Northwest Branch Trail.

The project has several benefits, including:

- Extending the connectivity of bikeways being constructed as part of the Purple Line project to improve access to the Long Branch and Manchester Place stations.
- Providing connections to and between important regional trails—Sligo Creek Trail at the western terminus and the Northwest Branch Trail at the eastern terminus

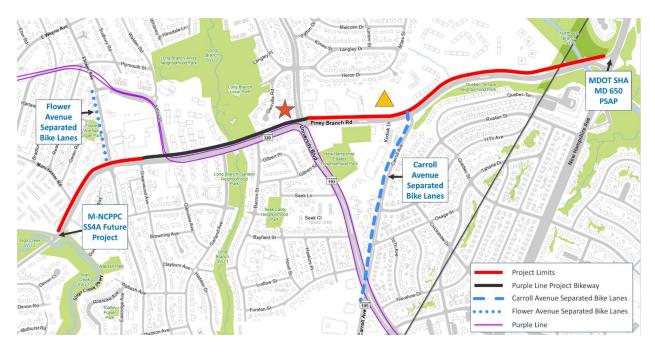


Figure 1: Project Location Map

SECTION 3 - PROJECT DESCRIPTION

Project Description

The project proposes to add separated bike lanes on Piney Branch Road without widening the street. The existing sidewalks and curbs will remain in place and space for the bike lanes will come from: 1) narrowing the vehicular travel lanes to 11 feet, and 2) removing one traffic lane in certain locations.

MCDOT proposes two different bikeway types as part of this project. First, one-way separated bike lanes are proposed between Sligo Creek Parkway and Greenwood Avenue, as well as between University Boulevard and Carroll Avenue. The separated bike lanes vary in width between 5 and 6 feet, while the buffers separating those lanes from motor vehicle traffic vary between 1.3 and 3 feet. The buffers are generally raised concrete; however, in specific locations, they are shown as pavement markings only. A typical section is shown in Figure 2.

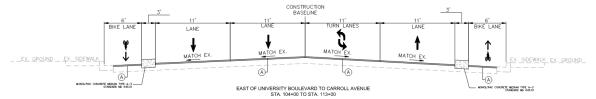


Figure 2: Typical One-Way Separated Bike Lane Section (Facing East)

Second, between Carroll Avenue and New Hampshire Avenue, the proposed bikeway is a 12-foot two-way separated bike lane on the north side of the roadway, separated from motor vehicle traffic by a 6-foot raised concrete buffer. A typical section is shown in Figure 3. A full plan set is found in Attachment A.

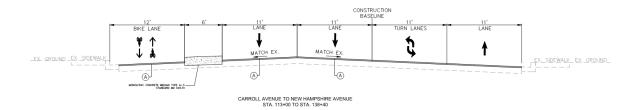


Figure 3: Typical Two-Way Separated Bike Lane Section (Facing East)

MCDOT intends to complete the project before the Purple Line opens in 2027. It is possible that the project could be completed in two phases based on funding availability. The first phase would be between Sligo Creek Parkway and Greenwood Avenue, and between University Boulevard and Carroll Avenue. The second phase would be between Carroll Avenue and New Hampshire Avenue. Part of this latter segment is in Prince George's County.

Background

Previous Mandatory Referrals

The proposed project interacts with three other transportation Mandatory Referral projects that the Planning Board has previously reviewed.

Flower Avenue Separated Bike Lanes

From west to east, the first project is the Flower Avenue Separated Bike Lanes (MR No. 2024013) on Flower Avenue between Arliss Street and Piney Branch Road, shown in Figure 1 in dotted dark blue and labeled. The Planning Board reviewed this project on June 20, 2024. It will provide two one-way separated bike lanes along the project corridor. MCDOT responses to the Planning Board transmittal letter are provided in Attachment B. Since the Planning Board reviewed this Mandatory Referral, MCDOT has advanced design for a protected intersection where Flower Avenue intersects with Piney Branch Road to be constructed as part of the Flower Avenue project, shown in Figure 4. This design will allow bicyclists to travel between these two bikeways with minimal motor vehicle interaction.

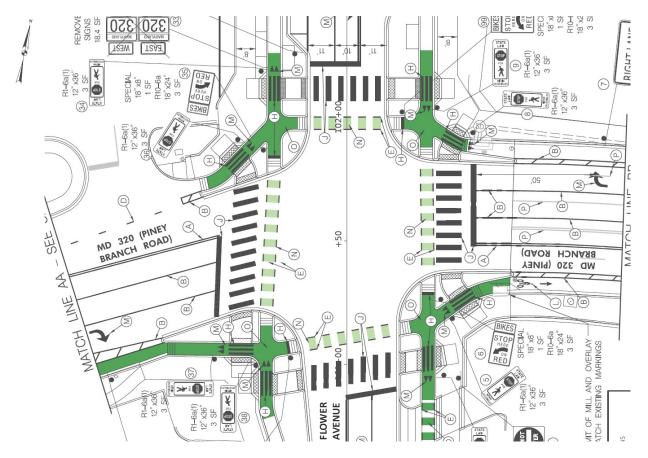


Figure 4: Current Piney Branch Road/Flower Avenue Protected Intersection Design

MDOT MTA Purple Line

The second project is the MDOT MTA Purple Line (MR No. 2014033). As part of this transit project, 5-foot striped bike lanes will be constructed along Piney Branch Road from Greenwood Avenue to University Boulevard. A typical cross-section is shown in Figure 5. The Planning Board reviewed this project on March 20, 2014. The one-way separated bike lanes proposed as part of this Mandatory Referral seamlessly connect into the MDOT MTA striped bike lanes.

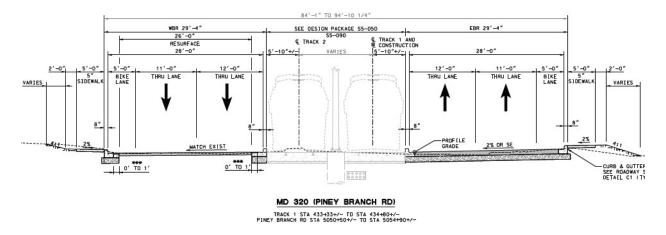


Figure 5: Purple Line Striped Bike Lanes Typical Section

Carroll Avenue Separated Bike Lanes

The third project is the Carroll Avenue Separated Bike Lanes (MR No. 2025004). This project will construct two-way separated bike lanes between Piney Branch Road and University Boulevard along the west side of Carroll Avenue (shown in dashed dark blue and labeled in Figure 1). The northern terminus of this project is where the proposed Piney Branch Road Bikeway transitions from two oneway separated bike lanes to one two-way separated bike lane. The Planning Board reviewed this project on October 31, 2024. MCDOT responses to the Planning Board transmittal letter are provided in Attachment C.

Other Public Projects

Montgomery Parks Sligo Creek Parkway Intersection Redesign

Montgomery Parks is in the very early stages of redesigning the intersection of Sligo Creek Parkway/Sligo Creek Trail and Piney Branch Road—the western terminus of this project—as part of their successful U.S. DOT Safe Streets and Roads for All grant. The redesign is an opportunity to seamlessly connect the project bikeway to the Sligo Creek Trail.

New Hampshire Avenue Pedestrian Safety Action Plan (PSAP)

The State Highway Administration is conducting a Pedestrian Safety Action Plan (PSAP) along New Hampshire Avenue between University Boulevard and Powder Mill Road, which is largely in Prince George's County. Construction began in summer of 2025. In the vicinity of the Piney Branch Bikeway project, the New Hampshire Avenue PSAP will be redesigning the intersection of New Hampshire Avenue and Piney Branch Road to remove the channelized right turn lane from New Hampshire Avenue to Piney Branch Road, as shown in Figure 6.

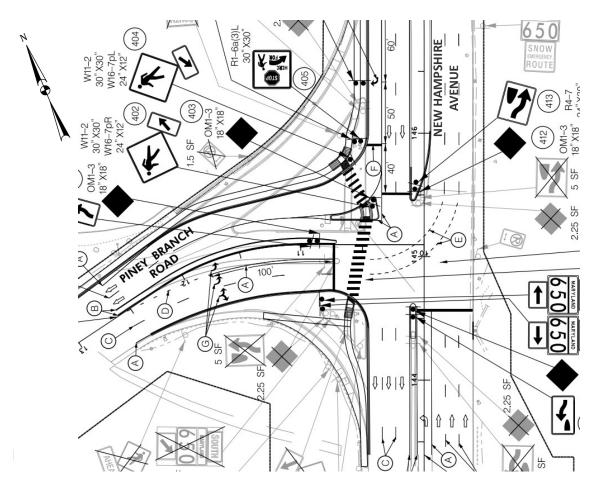


Figure 6: Redesigned Piney Branch Road at New Hampshire Avenue Intersection

This improvement will make it safer and more direct for people walking and biking along New Hampshire Avenue to cross Piney Branch Road by reducing motor vehicle speeds and improving visibility.

Development Pipeline

In addition, there are two projects in the development pipeline along this corridor.

Long Branch Corner

The first project is Long Branch Corner (Preliminary Plan No. 120180090), located at the northwest corner of Piney Branch Road and University Boulevard (Figure 1, red star). Though outside the limits of the Mandatory Referral project and within the portion of Piney Branch Road to be improved by the Purple Line effort, along Piney Branch Road, the Long Branch Corner project will:

- Dedicate sufficient right-of-way to provide the Sector Plan-recommended 112-foot right-ofway.
- Construct a 10-foot-wide sidewalk and a 5-foot-wide tree panel along the site frontage.

These conditions of approval do not preclude upgrading the striped bike lanes the Purple Line project will build.

Park Montgomery

The second project is Park Montgomery (Site Plan No. 820220020), located on the north side of Piney Branch Road just west of Carroll Avenue (Figure 1, orange triangle). As part of this development, the applicant is required to:

- Install a new 10-foot sidewalk set back 12.5 feet from the curb to provide the space necessary to install the master-planned separated bike lanes along the Piney Branch Road site frontage.
- Contribute \$172,595 towards the construction of a two-way separated bike lane beyond the project frontage.

These conditions of approval support the build-out of the proposed bikeway.

Surrounding Areas

Piney Branch Road in this area generally traverses low to high-density multi-family housing (R-10/R-30 zones) with pockets of town center-serving commercial and retail spaces (CRT zones) at the Flower Avenue (shown in Figure 6) and University Boulevard intersections. It is a closed section two-way roadway with no shoulders, with a posted speed limit of 30 mph. The existing roadway typical section varies along the project corridor, from one 12-foot-wide lane in each direction with intermittent center/left turn lanes at the west end to two 12-foot-wide lanes in each direction with a consistent center/left turn lane at the east end. There are existing, consistent 5-foot minimum-width sidewalks along both sides of the roadway.



Figure 7: Piney Branch Road west toward Flower Avenue

SECTION 4 - MANDATORY REFERRAL CONSIDERATIONS

Mandatory Referral review is guided by Montgomery Planning's Uniform Standards for Mandatory Referral Review (December 2022), and the authority granted to the Planning Board in Section 20-301 of the Land Use Article of the Maryland Code. In order to ensure comprehensive review of public projects, the Planning Board has jurisdiction over applications filed by the State, Federal, and County governments, including MCPS, as well as municipalities located within the Montgomery County portion of the Regional District. This includes the following activities: (i) acquiring or selling land; (ii) locating, constructing or authorizing a road, park, public way or ground, public building or structure, or publicly owned or privately owned public utility; or (iii) changing the use of or widening, narrowing, extending, relocating, vacating or abandoning any of the previously mentioned facilities. The Planning Board, or its Staff, must review such projects pursuant to the Uniform Standards and transmit comments to the applicant within the prescribed timeframe.

As described in the Uniform Standards, the Planning Board, or its Staff, considers all relevant land use and planning aspects of the proposal, including, but not limited to, the following:

 whether the proposal is consistent with the County's General Plan, functional plans such as the master plan of highways, environmental guidelines, the approved and adopted area master plan or sector plan, and other public plans, guidance documents, or programs for the area;

See Section 5.

2. whether the proposal is consistent with the intent and the requirements of the zone in which it is located;

Not applicable.

3. whether the nature of the proposed site and development, including but not limited to its size, shape, scale, height, arrangement, design of structure(s), massing, setback(s), site layout, and location(s) of parking is compatible with the surrounding neighborhood and properties;

Not applicable.

4. whether the locations of buildings and structures, open spaces, landscaping, recreation facilities, and pedestrian and vehicular circulation systems are adequate, safe, and efficient;

The proposed project creates dedicated space for bicyclists on Piney Branch Road, reducing conflicts between bicyclists and motor vehicles, as well as between bicyclists and pedestrians. Fewer conflicts mean improved safety outcomes along the corridor.

Additional analysis is provided in Section 5.

5. whether the proposal has an approved NRI/FSD and a preliminary SWM Concept Plan, and meets the requirements of the Forest Conservation Law (Chapter 22A of the County Code). Forest Conservation Plan, if applicable, must be approved by the Planning Board, either before or at the time of the Board's mandatory referral review and action on the project. Unlike the mandatory referral review by the Board, the conditions of the Forest Conservation Plan are binding on all county projects and require a Resolution of Approval.

The proposed project is not subject to Forest Conservation Law because the proposed limits of disturbance for the project are less than 40,000 SF and no trees are proposed to be impacted or removed.

Additional analysis is provided in Section 5.

6. whether a Preliminary or a Final Water Quality Plan has been reviewed by the Planning Board if the project is located in a Special Protection Area. In addition, for a Water Quality Plan for a project on public property, the Board must determine if the plan meets any additional applicable standards for Special Protection areas, including the standards of Article V. WATER QUALITY REVIEW IN SPECIAL PROTECTION AREAS, of the County Code (pursuant to Section 19-65(d)(4));

Not applicable.

7. whether or not the site would be needed for park use if the proposal is for disposition of a surplus school or other publicly-owned property.

Not applicable.

8. whether alternatives or mitigation measures have been considered for the project if the proposal is inconsistent with the General Plan or other plans and policies for the area, or has discernible negative impacts on the surrounding neighborhood, the transportation network, the environment, historic resources (including burial sites) or other resources.

Not applicable.

SECTION 5 - MANDATORY REFERRAL ANALYSIS

Master Plan Consistency

The proposal is generally consistent with applicable master plans.

2000 East Silver Spring Master Plan

From Sligo Creek Parkway to Manchester Road and from Carroll Avenue to Prince George's County, the proposal is within the 2000 *East Silver Spring Master Plan* (the Master Plan) area. The Master Plan includes recommendations to support a hierarchy of sidewalks, paths, and bikeways, including connections to Prince George's County. Specifically, along Piney Branch Road, the Master Plan recommends sidewalks on both sides of the road, frequent and safe pedestrian crossings, with an emphasis on safe crossings of major intersections including Carroll Avenue and University Boulevard. The Master Plan includes a recommendation to maintain the four-through-lanes typical section east of Carroll Avenue, which this project proposes to reduce based on analysis of existing and proposed traffic volumes and competing needs for limited space along the corridor.

2013 Long Branch Sector Plan

From Manchester Road to Carroll Avenue, the proposal is within the 2013 *Long Branch Sector Plan* (the Sector Plan) boundaries. The Sector Plan includes recommendations for improved pedestrian and bicycle facilities, specifically on Piney Branch Road from Sligo Creek Parkway to east of Carroll Avenue, including connections to the proposed Purple Line stations. Proposed facility types include bike lanes and sidepaths within the project corridor. While not the Sector Plan-envisioned facilities, the proposed bikeways achieve the same goals of direct, separated, and safe pedestrian and bicycle connectivity.

2018 Bicycle Master Plan

The *Bicycle Master Plan* includes recommendations for various bicycle facilities along Piney Branch Road within the project limits:

- Sligo Creek Parkway to Flower Avenue: Sidepath on the south side.
 - This project proposes separated bike lanes in lieu of a sidepath to maintain consistency with the striped bike lanes to be constructed as part of the Purple Line project, as requested by residents during public outreach. Connections between the existing Sligo Creek Trail and proposed separated bike lanes will occur at a signalized intersection.
- Flower Avenue to Carroll Avenue: Two-way Separated Bike Lanes on the north side.
 - This project proposes two one-way separated bike lanes in lieu of two-way separated bike lanes to maintain consistency with the striped bike lanes to be constructed as part of the Purple Line project, but the proposed facilities do not preclude future construction of two-way separated bike lanes on both sides.

- Carroll Avenue to New Hampshire Avenue: Sidepath on the north side.
 - This project proposes two-way separated bike lanes on the north side. This is consistent with the intent of the recommended facility type, being a two-way facility on the north side of the road. The proposed facility also minimizes environmental and other potential construction impacts by maintaining existing curblines and sidewalks.

The proposed deviations from the *Bicycle Master Plan* are appropriate and allow the project to directly connect on both sides of the Purple Line striped bike lanes being implemented between Greenwood Avenue and University Boulevard. Importantly, nothing about the design decisions made as part of this project preclude the Bicycle Master Plan-recommended facilities from being constructed at a future date.

Thrive Montgomery 2050

The Montgomery County General Plan, *Thrive Montgomery 2050*, was adopted in October 2022. This project aligns with stated objectives within *Thrive Montgomery 2050* to improve environmental health and resilience, improve public health and encourage active lifestyles, and develop a safe, comfortable, and appealing network for walking, biking, and rolling.

Transportation Best Practices

Complete Streets Design Guide

There are three different roadway classifications along the project corridor.

Boulevard

Between Sligo Creek Parkway and Manchester Road and between Carroll Avenue and the Prince George's County boundary, Piney Branch Road is classified as a Boulevard. Table 1 identifies Boulevard design guidance and whether the project achieves the roadway vision.

Table 1: Boulevard Characteristics

| Design Parameter | Design Guidance | Proposed by Project | Achieved by Project |
|--|--|---|------------------------|
| Target Speed | 35mph | Unchanged; 30-40mph | Partial |
| Maximum Number of Vehicle Through Lanes | 6 | 2-3 Vehicle Through Lanes | Yes |
| Maximum Protected Crossing Spacing | 800 ft – 1600 ft | Unchanged; 2300 ft | No |
| Street Buffer | 8 ft default; 6 ft minimum | 1.3 – 6 ft | No |
| Bikeway | Sidepath on both sides of the street: 11 ft default, 8 ft minimum | One-way separated bike lanes: 5 ft Two-way separated bike lanes: 12 ft | Partially |
| Sidewalk | Sidepath (see Bikeway for dimensions) | Unchanged; 5 ft | Beyond the Scope |

The proposed project meets the default Boulevard design criteria for target speed and maximum number of vehicle through lanes but does not meet the default for other design elements. In part, this is due to design decisions to advance bikeway types that were not recommended in the Bicycle Master Plan (separated bike lanes instead of a sidepath).

Town Center Boulevard

Between Arliss Street and Carroll Avenue, Piney Branch Road is classified as a Town Center Boulevard. Table 2 identifies Town Center Boulevard design guidance and whether the project achieves the roadway vision.

Table 2: Town Center Boulevard Characteristics

| Design Parameter | Design Guidance | Proposed by Project | Achieved by Project |
|--|---|---------------------------------------|------------------------|
| Target Speed | 25mph | Unchanged; 30mph | No |
| Maximum Number of Vehicle Through Lanes | 6 | 2-3 Vehicle Through Lanes | Yes |
| Maximum Protected Crossing Spacing | 400 ft | Unchanged; 1000 ft | No |
| Street Buffer | 8 ft default; 6 ft minimum | 2-2.3 ft | No |
| Bikeway | Two-way separated bike lanes on both sides of the street: 11 ft default, 8 ft minimum | One-way separated bike lanes: 5 ft | No |
| Sidewalk | 10 ft default; 8 ft minimum | Unchanged; 5 ft | Beyond the Scope |

The proposed project meets the default Town Center Boulevard design criteria for maximum number of vehicle through lanes but does not meet the default for other design elements. In part, this is due to design decisions to advance bikeway types not master-planned or identified in the Complete Streets Design Guide for this street classification (one-way separated bike lanes instead of two-way separated bike lanes). The decision to keep the proposed project between the existing curbs also limits opportunities to achieve the Complete Streets Design Guide vision.

Town Center Street

Between Manchester Road and Arliss Street, Piney Branch Road is classified as a Town Center Street. Table 3 identifies Town Center Street design guidance and whether the project achieves the roadway vision.

Table 3: Town Center Street Characteristics

| Design Parameter | Design Guidance | Proposed by Project | Achieved by Project |
|--|---|---------------------------------------|------------------------|
| Target Speed | 25mph | Unchanged; 30mph | No |
| Maximum Number of Vehicle Through Lanes | 2 | 2-3 Vehicle Through Lanes | Yes |
| Maximum Protected Crossing Spacing | 400 ft | Unchanged; 750 ft | No |
| Street Buffer | 6 ft | 2-2.3 ft | No |
| Bikeway | One-way separated bike lanes on both sides of the street: 6.5 ft default; 5 ft minimum | One-way separated bike lanes: 5 ft | Yes |
| Sidewalk | 10 ft default; 8 ft minimum | Unchanged; 5 ft | Beyond the Scope |

The proposed project meets the default Town Center Street design criteria for maximum number of vehicle through lanes and bikeway type but does not meet the default for other design elements.

There are potential changes to this project that could help achieve the Complete Streets Design Guide vision along this corridor without moving existing curbs:

Recommendation: Redesign the intersection of Piney Branch Road and Manchester Road to:

• Provide a protected crossing of Piney Branch Road

The distance between the protected crossing locations at Sligo Creek Parkway and Flower Avenue is 1,100 feet, which is longer than the Town Center Boulevard maximum 400-foot protected crossing spacing. Providing a protected crossing at this location would serve bus riders boarding and alighting from stops at this intersection, make it safer for pedestrians and bicyclists to cross the street, and shorten the maximum protected crossing spacing to 660 feet.

• Improve how bicyclists travel between Manchester Road and the eastbound Piney Branch Road bike lanes

The current bikeway design through this intersection does not allow bicyclists to intuitively

travel between southbound Manchester Road and the eastbound Piney Branch Road bikeway as shown in Figure 8. Red arrows in the figure indicate how Manchester Road bicyclists can travel east and west on Piney Branch Road. Bicyclists from Manchester Road intending to continue eastbound onto Piney Branch Road must travel against traffic to enter the crosswalk because there are no other breaks in the separated bike lane barrier. Some type of break in the eastbound bikeway concrete barrier should be considered at a location that makes logical sense for Manchester Road bicyclists to enter. Blue lines in the figure illustrate Piney Branch Road bicyclist travel paths.

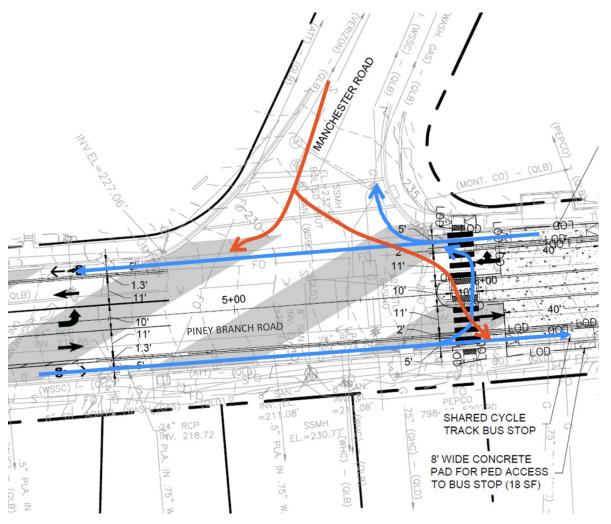


Figure 8: Piney Branch Road at Manchester Road Bicyclist Movements

Recommendation: Reduce the speed limit on Piney Branch Road east of Carroll Avenue from 40mph to 35mph.

The project corridor west of Carroll Avenue has a speed limit of 30mph. To the east, where the current speed limit is 40mph, the proposed project will be removing a travel lane to provide the two-way

separated bike lanes and buffer space. This roadway narrowing should substantially change the character of the roadway and the expectation people have about how fast they should be able to move through this area. The 2025 *Technical Update to the Master Plan of Highways and Transitways* set a target speed of 35 mph along this segment of Piney Branch Road. Lowering the speed limit to match the 35mph target speed will improve visibility for all road users and help to reduce the severity of crashes.

Pedestrian Level of Comfort and Bicycle Level of Traffic Stress

The Pedestrian Level of Comfort (PLOC) methodology captures how comfortable it is to walk and roll in different conditions in Montgomery County. A variety of pathway and crossing factors are considered to determine a comfort score for each crossing and pathway segment. The four main scores are: undesirable (score = 4), uncomfortable (score = 3), somewhat comfortable (score = 2), and very comfortable (score = 1).

Along Piney Branch Road within the project extents, most pathways and crossings are currently undesirable (PLOC 4), though some crossing legs at signalized intersections are uncomfortable (PLOC 3) to somewhat comfortable (PLOC 2). The proposed bikeways increase the separation between pedestrians and motor vehicles. This improves PLOC scores. Between Sligo Creek Parkway and Greenwood Avenue and between University Boulevard and Carroll Avenue, the one-way separated bike lanes will improve any undesirable (PLOC 4) segment to uncomfortable (PLOC 3). The two-way separated bike lanes east of Carroll Avenue, given the higher speed limit here (40 mph) will improve the undesirable (PLOC 4) score on the north side of the roadway to uncomfortable (PLOC 3). The south side of Piney Branch Road east of Carroll Avenue will stay at an undesirable level (PLOC 4) because the bikeway is only on the north side in this section.

Table 4: Typical Pedestrian Level of Comfort Scores

| Project Location Along Piney Branch Road | Current Typical PLOC Score | Typical PLOC Score After Construction |
|---|----------------------------------|---------------------------------------|
| Sligo Creek Parkway to Carroll Avenue - North Side | Undesirable (4) | Uncomfortable (3) |
| Sligo Creek Parkway to Carroll Avenue – South Side | Undesirable (4) | Uncomfortable (3) |
| Carroll Avenue to New Hampshire Avenue – North Side | Undesirable (4) | Uncomfortable (3) |
| Carroll Avenue to New Hampshire Avenue – South Side | Undesirable (4) | Undesirable (4) |

Similarly, the Bicycle Level of Traffic Stress (BLTS) methodology captures how comfortable it is to bicycle in different conditions in Montgomery County. The BLTS methodology assigns a numeric stress level to streets and trails based on attributes such as traffic speed, traffic volume, number of lanes, frequency of parking turnover, ease of intersection crossings, and others. The main scores are: Very Low Stress (appropriate for most children), Low Stress (appropriate for most adults), and High & Moderate Stress (inappropriate for children and most adults).

Piney Branch Road from Sligo Creek Parkway to Greenwood Avenue and from University Boulevard to New Hampshire Avenue is currently rated High & Moderate Stress because there are no dedicated bike facilities and several lanes of motor vehicle traffic. The proposed separated bike lanes, except immediately east of University Boulevard, are protected by concrete curbs, so the project will improve the BLTS in this area to Very Low Stress, creating a major east-west corridor where biking is comfortable for all ages and abilities.

Outside the limits of this project, the Purple Line project's striped bike lanes between Greenwood Avenue and University Boulevard are not a best practice design because they do not prevent motor vehicle encroachment into bicycle space. People of all ages and abilities will not feel comfortable bicycling this short stretch of Piney Branch Road. However, the design can be modified with an interim treatment that will reduce bicyclist stress.

Recommendation: Work with MDOT to add a flexpost buffer to the striped bike lanes that are to be constructed by the Purple Line project between Greenwood Avenue and University Boulevard by narrowing the motor vehicle travel lanes.

When the Purple Line corridor was designed, support for separated bike lanes was not as widespread as it is today. The Purple Line project's decision on Piney Branch Road and other roadways to construct striped bike lanes reflects this. Today, with separated bike lanes the standard, there have

been changes to the design of some bike lanes along the Purple Line route, notably on University Boulevard, to include a buffer between the bike lanes and motor vehicle lanes, as shown in Figure 9. The MCDOT project team should consider coordinating with the Purple Line project team to see if similar buffers can be implemented along Piney Branch Road.

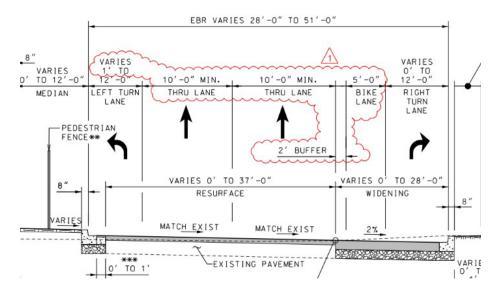


Figure 9: Bike Lane Buffer along University Boulevard

Recommendation: Provide bikeway buffers and consider moving the westbound bikeway to the curbside just east of University Boulevard.

Figure 10 shows that the proposed concrete buffers between the bikeway and motor vehicle lanes end just to the east of University Boulevard. This makes bicycle-motor vehicle conflicts more likely and creates added stress for bicyclists, which may dissuade some people bicycling from using the bikeway.

Additionally, in the westbound direction, the bike lane is located between the rightmost through lane and the right-turn lane. This design encourages people bicycling to travel through a space where motor vehicles will likely be merging from one lane into the other, increasing conflicts with people biking. Keeping the bike lane along the curbside is the safest option and eliminates the merging conflict. However, locating the bike lane adjacent to the curbside would possibly require bicycle signalization at University Boulevard, which would need to be studied.

A lane diet in this segment would provide ample space within the curb-to-curb width to provide bikeway buffers. Ten-foot inside travel lanes/left turn lanes and 11-foot outside travel lanes are appropriate for Town Center Boulevard streets in the Complete Streets Design Guide. Striping this section of Piney Branch Road using these dimensions yields an additional 4 feet to provide buffers between the bikeways and travel lanes. Bikeway buffers in this segment would improve the BLTS score and encourage more people to bicycle along the corridor.

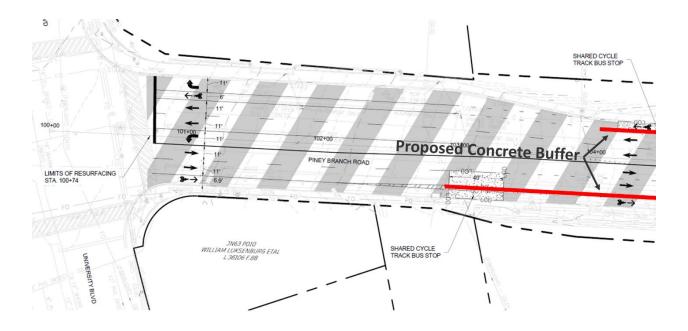


Figure 10: Bikeway East of University Boulevard

Safety and Accessibility

There are also other opportunities to improve the design of this project in terms of safety and accessibility.

Recommendation: Tighten curb radii at all intersections and driveways in line with the Complete Streets Design Guide (CSDG) default radii (15 feet). Where wider turning radii may be necessary for larger vehicles or emergency operations, consider the use of mountable curbs or relocating the receiving leg stop bar to allow for encroachment.

Providing tight turning radii is essential to reducing the turning speed of motor vehicles, improving visibility between motorists, pedestrians, and bicyclists, and reducing the likelihood and severity of collisions between roadway users. Figure 11 illustrates how tighter turning radii improve visibility by allowing motorists to cross bikeways, sidewalks, and sidepaths at a perpendicular angle so they can see potential conflicts through the front windshield, not over a shoulder.

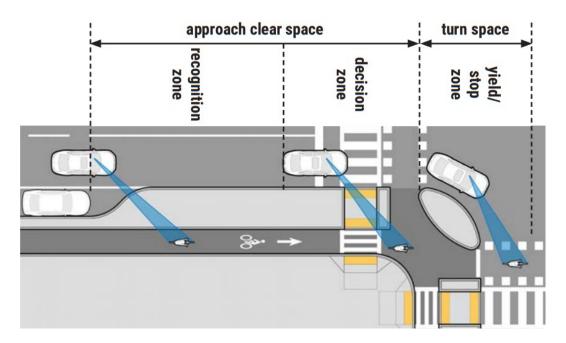


Figure 11: Tighter Curb Radii Visibility Illustration

Additionally, the smaller the curb radius, the less roadway pedestrians have to cross, reducing their exposure to conflict.

Figure 12 illustrates potential curb radii changes at the Nob Hill Apartments driveway (122+00). Similar improvements should be considered at the following locations:

- Manchester Road Intersection (5+00)
- Pineway Towers Driveway (106+50)
- Forest Park Apartments (128+00)

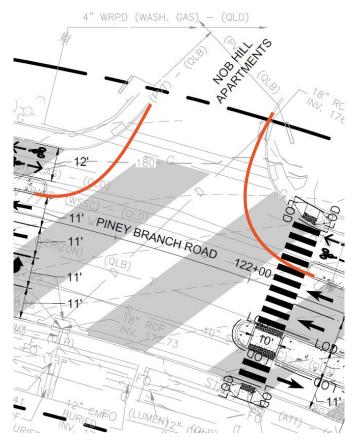


Figure 12: Potential Curb Radii Changes at Nob Hill Apartments Driveway

Recommendation: Redesign site access to the shopping complex at the southwest corner of Piney Branch Road at Flower Avenue to improve visibility and safety for all road users.

The curbline in front of this shopping complex is set back further than the curbline to the west. This setback, combined with the building shown in Figure 13, creates a likely sight distance issue for drivers exiting from this driveway. It may be difficult for them to see people biking from their left (towards the viewer in Figure 13). To reduce the sight distance issue and encourage drivers to check for people biking, two options should be considered.

- Left turns from this driveway could be prohibited. As shown in Figure 14, turning left at this
 location will require crossing three travel lanes into a fourth while tracking traffic in both
 directions. Prohibiting this movement will allow drivers to focus on only one direction of
 vehicular and bicycle traffic, reducing the likelihood that they miscalculate traffic gaps and
 cause a crash.
- 2. The majority of the red hatched area in Figure 14 could be raised to sidewalk level and have green conflict markings to make clear to drivers that this is an area where they should expect bicyclists. Raising this area and providing conflict markings should also reduce the frequency of drivers inching out into the bike lane to look for gaps in traffic.



Figure 13: Shopping Complex Access

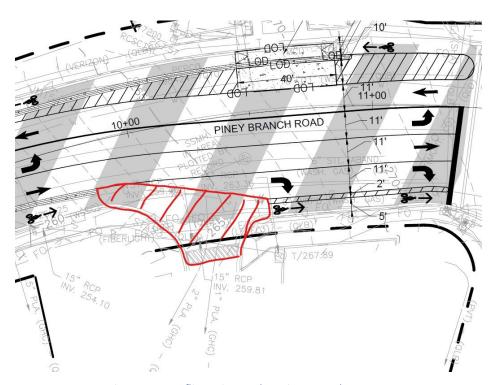


Figure 14: Conflict Point at Shopping Complex Access

Recommendation: Ensure the pedestrian environment along the Piney Branch Road corridor is improved in line with the Public Right-of-Way Accessibility Guidelines (PROWAG) and MCDOT's Accessible Design Guide.

While the focus of this project is to construct a bikeway, the project team should take advantage of opportunities to provide compliant curb ramps and other pedestrian amenities as part of this project.

Environment

Environmental Guidelines

The project conforms to the Planning Board-approved Environmental Guidelines for Environmental Management of Development in Montgomery County.

The property is located within the Sligo Creek watershed, which is a Use I watershed¹ and the Northwest Branch Watershed, a Use IV watershed.² There are streams and their associated buffers, wetlands, and 100-year floodplains on-site. The proposed bikeway is being constructed within the existing roadway and does not propose any additional environmental impacts.

Forest Conservation

Planning Staff confirmed that this application is not subject to Chapter 22A -Forest Conservation Law because the Property is less than 40,000 square feet in size and it is not subject to a previously approved Forest Conservation Plan.

Stormwater Management

The project has an approved Stormwater Management Concept Plan that was approved by the Department of Permitting Services on February 10, 2025.

Waters that are suitable for: water contact sports: play and leisure time activities where the human body may come in direct contact with the surface water; fishing; the growth and propagation of fish (other than trout); other aquatic life, and wildlife; agricultural water supply and industrial water supply, capable of holding or supporting adult trout for put-and-take fishing; and managed as a special fishery by periodic stocking and seasonal catching.

¹ Use I: WATER CONTACT RECREATION, AND PROTECTION OF NONTIDAL WARMWATER AQUATIC LIFE

Waters that are suitable for: water contact sports: play and leisure time activities where the human body may come in direct contact with the surface water; fishing; the growth and propagation of fish (other than trout); other aquatic life, and wildlife; agricultural water supply, and industrial water supply.

² Use IV: RECREATIONAL TROUT WATERS.

Historic Preservation

Not applicable.

Parks Department

The project is completely within the right-of-way and there are no park impacts.

SECTION 6 - COMMUNITY OUTREACH

The project team held a public meeting about this project and the Flower Avenue Bike Lanes on February 7, 2024. Multiple conceptual options were presented at this meeting for potential bicycle facilities along the corridor including striped bike lanes, separated bike lanes, and a sidepath. Overall, the feedback received was largely positive, and in favor of improved safety along the corridor for people walking and biking. Many commenters requested physical barriers be included between vehicles and bicycles, as well as overall traffic calming and considerations for lowering the speed limit.

The project team used the feedback from the public to inform the determination of the preferred alternative to move into preliminary design. The project team also adjusted the proposed typical sections to incorporate recommendations to reduce the number of travel lanes on Piney Branch Road.

After staff accepted the Mandatory Referral for review, Montgomery Planning notified local civic and homeowners' associations and other interested parties of this proposal. As of the date of this report, no correspondence has been received.

SECTION 7 - CONCLUSION

Staff recommends approval and the transmittal of comments to the Montgomery County Department of Transportation.

SECTION 8 - ATTACHMENTS

Attachment A: Project Engineering Drawings

Attachment B: Flower Avenue Separated Bike Lanes Transmittal Letter with MCDOT Responses

Attachment C: Carroll Avenue Separated Bike Lanes Transmittal Letter with MCDOT Responses