Montgomery Planning

FENTON STREET BIKEWAYS MANDATORY REFERRALS

Description

This staff report includes mandatory referrals for two bikeway projects on Fenton Street in Downtown Silver Spring:

- Sidepath on the west side of Fenton Street between King Street and MD 410.
- Two-way separated bike lanes on the west side of Fenton Street between MD 410 and Cameron Street.
- Removal of high speed channelized right turns at the intersection of Fenton Street & MD 410.

MR2022008 & MR2022011

COMPLETED: 01-20-2022

MCPB
Item No. 7

January 27, 2022

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LOCATION:

Downtown Silver Spring

MASTER PLAN ZONE

Bicycle Master Plan & Silver Spring CBD Sector Plan

PROPERTY SIZE

n/a

APPLICANT

Montgomery County Department of Transportation

ACCEPTANCE DATE:

11/23/2021 and 12/1/2021

REVIEW BASIS:

Mandatory Referral

Summary

- Staff recommends approval with comments of the Fenton Street at MD 410 Intersection Reconstruction and Fenton Street Bikeway projects.

TABLE OF CONTENTS

SECTION 1

MANDATORY REFERRAL PROCESS OVERVIEW

The proposals for the construction of the Fenton Street at MD 410 Intersection Reconstruction project and Fenton Street Bikeway are required to undergo the Mandatory Referral review process under the Montgomery County Planning Department's Uniform Standards for Mandatory Referral Review. State law requires all federal, state, and local governments and public utilities to submit proposed projects for a Mandatory Referral review by the Commission. The law requires the Planning Board to review and approve the proposed location, character, grade and extent of any road, park, public way or ground, public (including federal) building or structure, or public utility (whether publicly or privately owned) prior to the project being located, constructed or authorized. This review is typically performed in context with the relevant master plans, guidelines and policies in effect.

SECTION 2

RECOMMENDATIONS SUMMARY

Fenton Street at MD 410 Intersection Reconstruction (MR2022008)

Staff recommends **approval with comments** of the Fenton Street at MD 410 Intersection Reconstruction project.

Transportation

1. Per the Complete Street Design Guide, reduce the corner radius from 25 feet to 15 feet to shorten the crossing and reduce the speed of right turning traffic at three locations: 1) the southwest corner of the intersection of Fenton Street and Gist Avenue, 2) the southwest corner of the intersection of Fenton Street and Richmond Avenue, and 3) the northwest corner of the intersection of Fenton Street and King Street. If this dimension is too narrow for trucks to negotiate, explore the use of mountable truck aprons.
2. Install centerline hardening on King Street and Richmond Avenue to improve left-turning drivers' view of the crosswalk and to reduce the speed of left turning motor vehicles from Fenton Street to King Street.

Parkland

Approve parkland impacts associated with the construction of sidewalk, bikeway and intersection improvements with the following conditions:

3. MCDOT will continue to coordinate with M-NCPPC to finalize the condition and timing of the proposed Philadelphia Avenue (3,925 square feet) and Blair Place paper street (2,501 square feet) conveyance to parkland.
4. Along Fenton Street Urban Park, remove the 17-inch ornamental cherry tree.
5. Along Fenton Street Urban Park, modify the project so that the sidewalk and bikeway do not extend past the existing limits of the sidewalk to avoid the critical root zone of the 30-inch scarlet oak including, where possible, at the corner of Richmond Avenue and Fenton Street. Narrow the bikeway from 10 feet to 8 feet and widen the street buffer from 1 foot to 3 feet.
6. Tree removal on parkland will need to be mitigated with replanting on parkland with guidance from Parks at a replacement rate of 1 inch-to-1 inch or pay tree loss mitigation of $100.00 per inch. This planting mitigation is separate from the planting proposed within the right-of-way.
7. Construction plans must be submitted to the M-NCPPC Department of Parks for review as part of the Park Construction Permit process to ensure that all work is performed in accordance with M-NCPPC standard details, specifications, and policies. No work on parkland may occur until an approved Park Construction Permit is issued for the project.

Environmental

8. Provide plans to demonstrate compliance with the Forest Conservation exemption approval memo, which references tree protection measures, mitigation plantings, etc.
9. Provide landscape plans that address previous comments and/or Applicant responses to previous comments. Landscape Details sheet should include all required notes and details.

Fenton Street Bikeway (MR2022011)

Staff recommends **approval with comments** of the Fenton Street Bikeway project.

Transportation

1. Widen the ramps on the east side Fenton Street to match the crosswalk width.
2. Between Silver Spring Avenue and Thayer Avenue, explore ways to expand the buffer between the bikeway and on-street parking from 2 feet to 3 feet.
3. Per the Complete Street Design Guide, reduce the corner radius from 20 feet to 15 feet where feasible. If this dimension is too narrow for trucks to negotiate, explore the use of mountable truck aprons.

Environmental

4. Symbology used in plan graphics for trees to be removed does not consistently match the legend. Use consistent graphics and ensure that the X for removed trees is bold enough to be clearly identified.
5. Maximize ground cover over sod where possible. Low profile native species would be recommended over sod unless other factors contribute to the necessity for sod.
6. Per the Silver Spring Streetscape Standards, use tree planting methods that maximize soil volume available for new trees. Explore such opportunities and provide details/notes indicating usage.
7. Make use of all applicable standard details and notes including the sequence of events notes.

Historic Preservation

8. Submit final design drawings to the Historic Preservation office for final review so that a letter can be provided verifying that no Historic Area Work Permit is required to proceed with construction.

SECTION 3

RELATED PROJECTS

Figure 1 identifies the master-planned bikeways recommended in Downtown Silver Spring. The Fenton Street bikeway projects are highlighted in orange. Projects that have recently been completed, that are currently under construction or that are funded in the capital budget, are described below.

Figure 1: Master-Planned Bikeways in Downtown Silver Spring (solid lines are existing, dashed lines are planned)

A. Spring Street / Cedar Street Separated Bike Lanes: MCDOT completed this bikeway in 2017.

Figure 2: Spring Street / Cedar Street Separated Bike Lanes

B. Wayne Ave / Second Ave Separated Bike Lanes: MCDOT completed this bikeway in October 2019.

Figure 3: Second Avenue / Wayne Avenue Separated Bike Lanes

C. Cameron Street to Planning Place Bikeway: MCDOT is nearing completion of this bikeway and sidewalk project between Cameron Street and Planning Place.

Figure 4: View of the Cameron Street to Planning Place Bikeway Under Construction in November 2021

D. Capital Crescent Trail: The Capital Crescent Trail, between Downtown Bethesda and Downtown Silver Spring, is under construction as part of the Purple Line project.

Figure 5: A bridge for the Capital Crescent Trail over Colesville Road is currently under construction

E. Silver Spring Green Trail: Construction of the Silver Spring Green Trail between Downtown Bethesda and Downtown Silver Spring is under construction as part of the Purple Line project.

Figure 6: A rendering of the Silver Spring Green Trail adjacent to the Silver Spring International Middle School on the north side of Wayne Ave

F. 8787 Georgia Avenue: A sidewalk and bikeway will be constructed as part of the ongoing redevelopment of the Planning Department's previous headquarters at 8787 Georgia Avenue.

Figure 7: Image shows the "mews" through the 8787 Georgia Avenue site, connecting Spring Street to Planning Place

G. Metropolitan Branch Trail: Completion of the Metropolitan Branch Trail in Montgomery County is programmed in the Capital Improvements Program.

SECTION 4

PREVIOUS PLANNING BOARD ACTIONS

On January 21, 2021, the Planning Board reviewed MCDOT's Fenton Street Study, which developed and analyzed seven potential alternatives for the Fenton Street Bikeway project. The Board's letter to the County Council's Transportation & Environment (T&E) Committee is provided as Attachment A and included four comments:

1) Advance Alternative E as the preferred alternative.
2) If removing additional on-street parking would improve the quality of the bikeway, additional on-street parking should be removed.
3) In future alternatives analysis, preservation of on-street parking should be the lowest priority consideration.
4) Coordinate with Montgomery Planning staff to undertake a design process to better separate pedestrians, bicyclists, motor vehicles and light rail vehicles at the Fenton Street/Wayne Avenue intersection.

Alternative E avoids roadway widening in Fenton Village, provides exclusive left-turn lanes for motor vehicles, protection for pedestrians and bicyclists from collisions with left-turning vehicles on the west side of Fenton Street and eliminates about 50 parking spaces along the corridor.

SECTION 5

SITE DESCRIPTION

Fenton Street is a two-way street that runs in the north-south direction between Takoma Avenue and Cameron Street with an average daily traffic volume of about 10,500 vehicles. It has two through lanes for most of its length, except for between Ellsworth Drive and Colesville Road where it expands to four lanes. Classified as an arterial street (and likely a Downtown Street in the Complete Streets Design Guide), it has a master-planned right-of-way of 80 feet. Today, the existing curb-to-curb street width varies between 44 and 48 feet, and the existing right-of-way is between 64 and 80 feet. Through the study area, the posted speed limit is 25 miles per hour.

In addition to the future connection to the Purple Line at Wayne Avenue, WMATA (F4 bus route) and RideOn (16, 17, 20, 28 bus routes) both maintain service along the corridor. There are eight existing southbound bus stops and six in the northbound direction.

The majority of intersections along the corridor are currently signalized or will soon have a pedestrian hybrid beacon (HAWK) installed as part of a separate project. The only intersections that will remain without a traffic signal are at Gist Avenue and Easley Street.

SECTION 6

FENTON STREET AT MD 410 INTERSECTION RECONSTRUCTION

Project Description

The Fenton Street at MD 410 Intersection Reconstruction project proposes pedestrian and bicycle access and safety improvements for approximately 850 feet along Fenton Street, from King Street to Gist Avenue in Downtown Silver Spring (Figure 8). On the west side of Fenton Street, the project will construct a sidepath from King Street to MD 410 and two-way separated bike lanes from MD 410 to Gist Avenue. It will remove the channelized right turn ramps and islands located in the northwest and northeast corners of the Fenton Street / MD 410 intersection. Existing sidewalks will be reconstructed to provide landscape buffers where street trees will be planted. Stormwater management facilities will be provided in the areas where the right turn ramps were removed, replacing impervious area with new stormwater treatment and landscaping. The project also adds short segments of separated bike lanes along the west leg of MD 410 so that the intersection does not need to be modified when the planned MD 410 separated bike lanes west of Fenton Street are constructed. Finally, it conveys right-of-way to M-NCPPC for the future Fenton Street Urban Park.

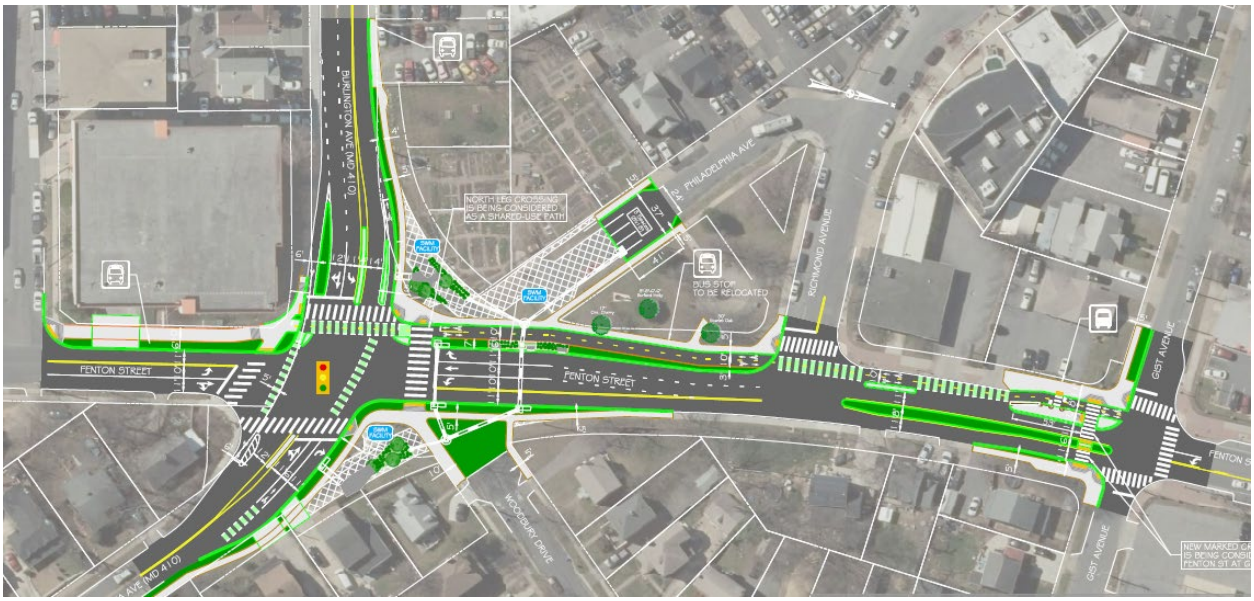

Figure 8: Fenton Street at MD 410 Intersection Reconstruction Project (north is to the right)

Design plans for this project are located at:

https://eplans.montgomeryplanning.org/daiclinks/pdoxlinks.aspx?apno=MR2022008&projname=Fenton%20St.%20at%20MD%20410%20Intersection%20Reconstruction

Master Plan Consistency

The Fenton Street at MD 410 Intersection Reconstruction project is substantially consistent with applicable master plans. While the 2018 *Bicycle Master Plan* recommends separated bike lanes on Fenton Street between King Street and Gist Avenue, the project proposes to construct a sidepath in front of the Public Storage building located between King Street and MD 410 and separated bike lanes from MD 410 to Gist Avenue.

Analysis

Transportation

The Fenton Street at MD 410 Intersection Reconstruction project is a high-quality bikeway that is largely consistent with the design standards in the Complete Street Design Guide.

Complete Streets Design Guide

- **Street buffers** provide separation between motor vehicles (traffic lanes or on-street parking) and the bikeway, increasing both the safety and comfort of bicycling. The minimum street buffer in the Complete Streets Design Guide is 3 feet for a public project. This project provides a street buffer that is typically 6+ feet wide, but that drops to 3 – 4 feet near the intersection with Richmond Avenue.
- The minimum **bikeway width** in the Complete Streets Design Guide is 8 feet for two-way separated bike lanes. The Fenton Street Bikeway project provides a bikeway that is typically 10 feet wide but narrows to 8 feet approaching Gist Avenue.
- **Pedestrian / bicycle buffers** encourage pedestrians and bicyclists to remain in their designated spaces and can provide space for plantings, stormwater management and street furniture. While the project does not provide the minimum 2 feet vertical separation between the sidewalk and the separated bike lanes between MD 410 and Richmond Avenue, it does provide horizontal separation in the form of an "intermediate-level" bikeway, as described below.
- The default **curb radius** is 15 feet to shorten the crossing and reduce the speed of turning traffic. The Fenton Street at MD 410 Intersection Reconstruction project proposes curb radii that are wider than 15 feet at three locations: 1) the southwest corner of the intersection of Fenton Street and Gist Avenue, 2) the southwest corner of the intersection of Fenton Street and Richmond Avenue, and 3) the northwest corner of the intersection of Fenton Street and King Street.

Intermediate Level Bikeways

An intermediate level bikeway is proposed to differentiate the bikeway from the sidewalk. This is an advanced design approach that is common in Europe but is an emerging practice in the United States. Intermediate bikeways are the default approach to bikeway design in the Complete Streets Design

Guide, but this would be the first application in Montgomery County. While the image in Figure 9 is not an exact replica of the intermediate-level bikeway that MCDOT is proposing to construct, it does show the bikeway is elevated at a level between street level and sidewalk level. In addition to differentiating walking space from bicycling space, it also helps to reduce debris collection in the bikeway.

Figure 9: Example of an Intermediate-Level Bikeway in Vancouver, British Columbia

Bus Stops

MCDOT has coordinated extensively with the Commission on People with Disabilities over the past few years to improve the design of floating bus stops, a design treatment in which separated bike lanes are routed behind the bus stop to reduce conflicts between bicyclists and transit patrons. The Fenton Street and MD 410 Intersection Reconstruction project includes a floating bus stop on the west side of Fenton Street at the intersection with Richmond Avenue. While floating bus stop design continues to be an evolving practice, MCDOT has worked diligently to refine the design of these bus stops to address concerns raised by the Commission on People with Disabilities. An example of a floating bus stop on Second Avenue in Downtown Silver Spring is shown in Figure 10. The bus stop design proposed for Fenton Street includes additional enhancements developed in consultation with the Commission on People with Disabilities.

Figure 10: A Floating Bus Stop on Second Avenue in Downtown Silver Spring

Removal of Channelized Right Turns

Channelized right turns are a known safety risk and MCDOT is systematically working to remove them from roads in the county. Their elimination of channelized right turns at the intersection of Fenton Street and MD 410 (Figure 11) would be a substantial safety improvement for pedestrians and bicyclists. It also provides space to accommodate stormwater management and improves the connection to Woodbury Drive, which currently requires bicyclists to make awkward turns on narrow sidewalks.

Figure 11: View of the Channelized Right Turn at the Northeast Corner of Fenton Street and MD 410

Conflicts at Uncontrolled Intersections

While the Fenton Street Bikeway project (see Section 7) proposes signalization with exclusive left turn phases to eliminate conflicts between left-turning motor vehicles and pedestrians and bicyclists crossing the street along the west side of Fenton Street, signals are not proposed at the intersections with King Street and Richmond Avenue. To reduce conflicts between left turning vehicles and pedestrians / bicyclists and to reduce the speed of left turning vehicles, the project could consider installing centerline hardening at the intersections with King Street and Richmond Avenue (Figure 12).

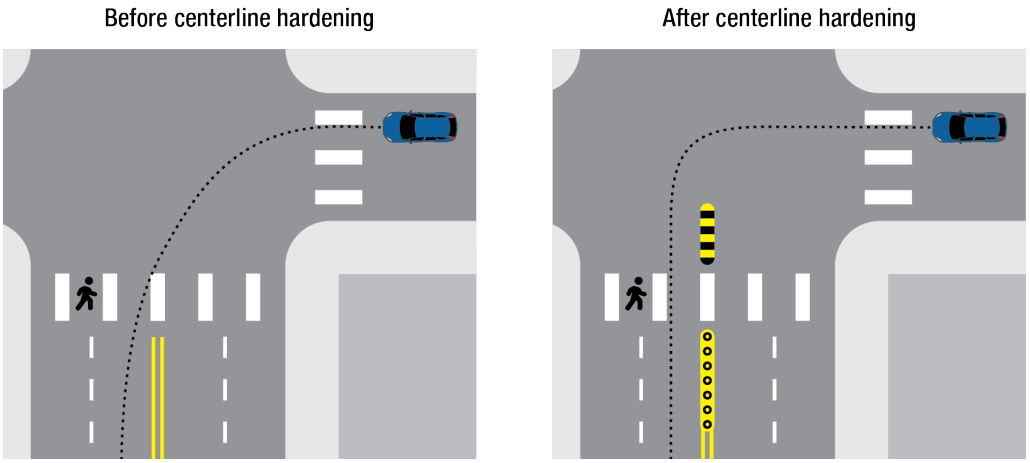

Figure 12: Centerline hardening can improve the safety of pedestrians and bicyclists crossing the street by encouraging drivers to make left turns at slower speeds. (Source: Insurance Institute for Highway Safety)

Environmental

Environmental Guidelines

A Simplified Natural Resource Inventory/Forest Stand Delineation (SNRI/FSD), designated No. 42021254E, was approved for the Subject Property on June 28, 2021. The plan was submitted in conjunction with a request for an exemption to submit a Forest Conservation Plan and described the existing and natural features of the site including an inventory of significant and mature trees measuring 24-inches or greater in diameter-at-breast height (DBH).

The project area contains no forest, however the approved SNRI/FSD showed a number of mature trees ranging in size from 28 inches to 35 inches DBH. As shown on the plan, there are minor slopes, those typically associated with developed roadways, within the project area; soils on the site are classified as urban land and are not highly erodible or otherwise sensitive as defined by the Montgomery County Environmental Guidelines. The project area falls within the Lower Rock Creek Watershed, a Use I[1]

[1]WATER CONTACT RECREATION, PROTECTION OF 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.

watershed, however there are no streams, stream buffers, or wetlands onsite. The project area does not include any properties listed in the locational atlas and index or historic sites. There are no known rare, threatened, or endangered species onsite

Forest Conservation

Following the submittal of a Forest Conservation Exemption request, approved by staff on June 28, 2021, this application is subject to Chapter 22A Forest Conservation Law but is exempt from the requirement to submit a Forest Conservation Plan per 22A-5(e) because the project is a county highway construction activity that is subject to Section 22A-9 of the Montgomery County Code. Per Section 22A-9, the construction proposed in this application should minimize forest removal, land disturbance, and loss of specimen or champion trees to the extent possible while balancing other design, construction, and environmental standards. The constructing agency must make a reasonable effort to minimize land disturbance to avoid the cutting or clearing of trees and other woody plants.

In line with the above guidance from the Montgomery County Code, the Forest Conservation Exemption memo also specifies that a Tree Save Plan showing tree protection fencing, mitigation trees if there is sufficient space, and any other mitigation measures, as appropriate, must be submitted for review. Given that impacts to specimen trees within or adjacent to the limit of disturbance (LOD) are expected but unknown at this design stage, this requirement will be further assessed when such plans are available and will additionally be reviewed during the required onsite pre-construction meeting.

Stormwater Management

The project must comply with the requirements of Chapter 19 of the Montgomery County Code. The application received approval of a Stormwater Management Concept/Site Development Stormwater Management Plan from the Department of Permitting Services on September 15, 2021. The plan demonstrates that stormwater management goals will be met via environmental site design (ESD) consisting of micro bioretention facilities. Additionally, this Application has been granted a waiver in lieu of on-site management for the volume not able to be treated in Environmental Site Design measures. With this approval, the applicant will meet all applicable requirements of Chapter 19 of the Montgomery County Code.

Parkland

Description

The proposed project has limited direct impact to parkland, however the project is directly adjacent to parkland. The project includes accessibility improvements to pedestrian facilities, constructing a separated bikeway and buffer, and the construction of stormwater management facilities.

Parkland Impacts

The Fenton Street at MD 410 intersection reconstruction project will have minor direct impacts to Fenton Street Urban Park and includes conveyance of MCDOT right-of-way to M-NCPPC.

Fenton Street Urban Park is currently a 0.69-acre (30,032 sq ft) park located to the west of Fenton Street between MD 410 and Richmond Avenue and is bisected by Philadelphia Avenue. This park contains an approximately 0.5-acre community garden and on the northeast side of Philadelphia Avenue, a shaded seating area.

MCDOT proposes to convey two parcels of land (highlighted in yellow in Figure 13) to M-NCPPC including the stub of Philadelphia Avenue (3,925 sq ft) and the Blair Place paper street (2,501 sq ft) for a total of 0.15 acres (6,426 sq ft) of additional parkland at Fenton Street Urban Park. The addition of these parcels to M-NCPPC ownership will increase the official park size by 21 percent and connect previously disjointed pieces of parkland. While the Blair Place paper street currently functions as parkland, M-NCPPC ownership will allow Parks to plan for park improvements and potential redevelopment in the future.

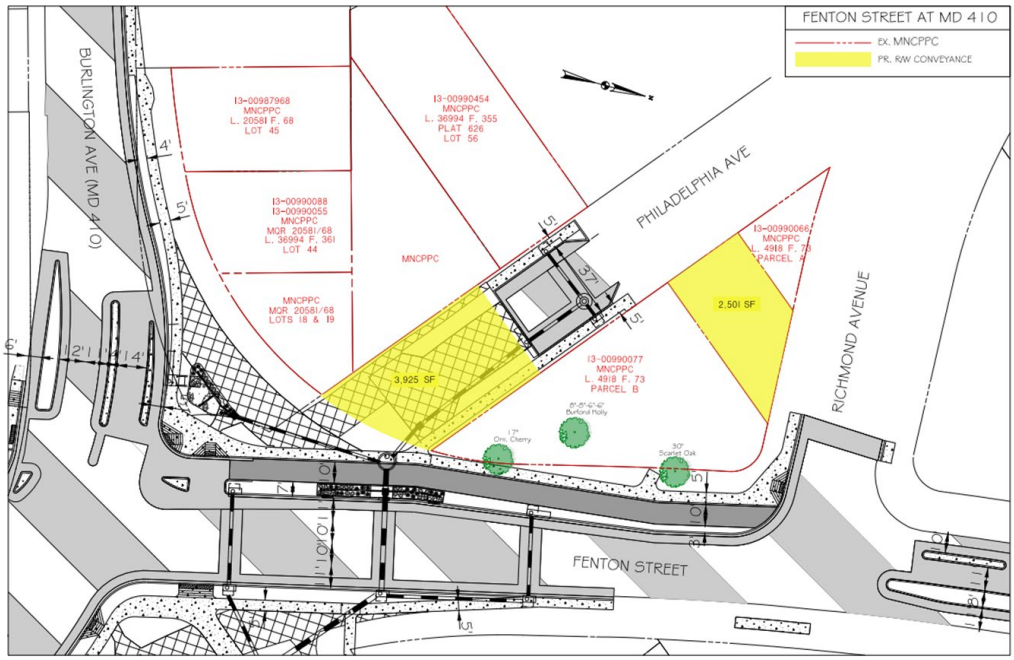

Figure 13: Proposed conveyance from MCDOT right-of-way to Montgomery Parks - Philadelphia Avenue (3,925 sq ft) and the Blair Place paper street (2,501 sq ft) for an additional total of 0.15 acres (6,426 sq ft) of parkland

This project area is within a highly developed and impervious environment in the Lower Sligo Creek Watershed. MCDOT is meeting stormwater management requirements for the project with a net reduction of imperviousness and three microbioretention facilities treating 0.55 acres of roadway, sidewalk and parts of the bikeway within the abandoned high-speed turn lanes at the intersection of Fenton Street and MD 410.

The current intersection improvement plan shows a relocation of the sidewalk along Fenton Street Urban Park within the critical root zones of two trees, a 30-inch scarlet oak and a 17-inch ornamental cherry (see Figure 14). Parks' analysis indicates that the 17-inch cherry will need to be removed as part of the project. As MCDOT has committed to saving the 30-inch scarlet oak, impacts should be minimized by limiting paving work to the existing pavement limits directly adjacent to the tree, including, where possible, at the corner of Fenton Street and Richmond Avenue (see Figure 15). Continued coordination through final design and construction will be required to increase the likelihood of tree survival.

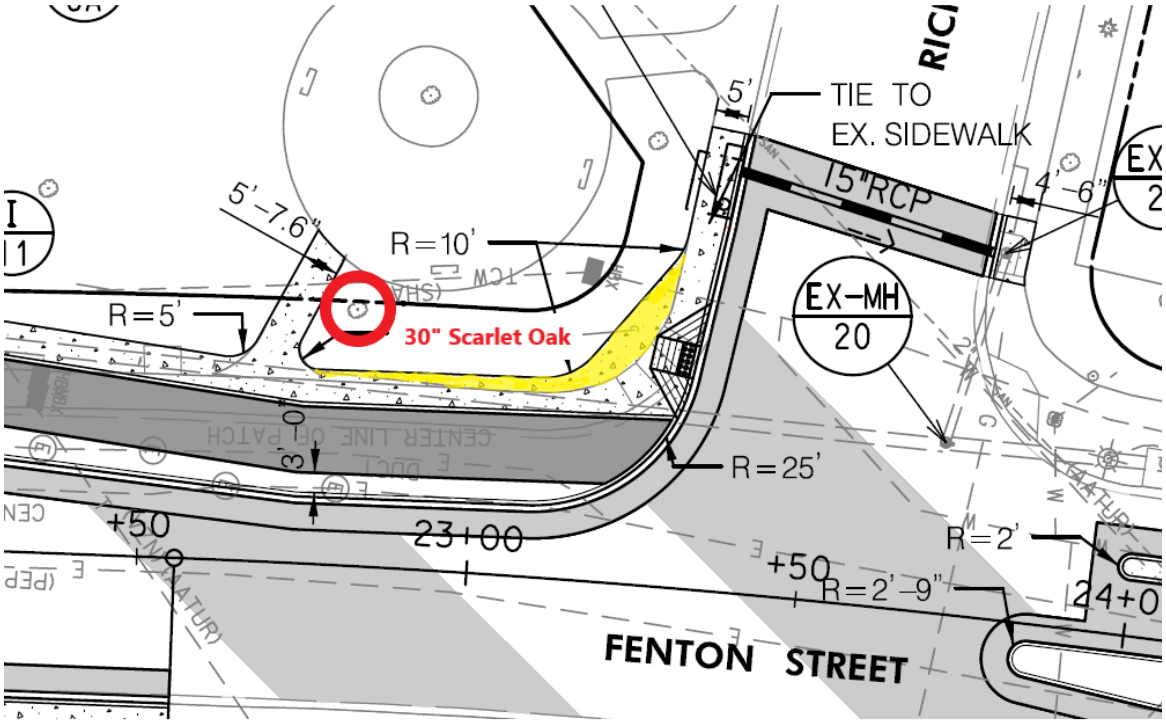

Figure 14. Proposed pavement beyond existing limits to be removed to avoid impacts to the 30-inch scarlet oak at the corner of Fenton Street and Richmond Avenue

Figure 15: Scarlet oak (30-inch DBH) and existing pavement limits at Fenton Street Urban Park and Richmond Avenue

MCDOT will be required to obtain a Park Construction Permit from Montgomery County Department of Parks prior to commencement of any construction activities on parkland. Plans submitted for Park Construction Permit review must include existing topography, utilities, and identify and locate all trees (with size and species) larger than 6 inches DBH and greater within 100 feet of the proposed Limit of Disturbance on park property. Mitigation for impacts to park trees (with a 6-inch DBH or greater) damaged or removed, shall either be (1) replacement planting on parkland at a rate of 1 inch-to-1 inch diameter or (2) a monetary per inch caliper basis at the rate of $100/diameter inch, to be paid to Montgomery Parks prior to completion of construction. Tree impacts will be determined by an M-NCPPC forester prior to construction based on the Final Design.

Historic Preservation

There are no historic properties within the footprint of this project, nor are there any adjacent to the project area. No historic properties will be impacted by this proposal.

Recommendations

Transportation

1. Per the Complete Street Design Guide, reduce the corner radius from 25 feet to 15 feet to shorten the crossing and reduce the speed of right turning traffic at three locations: 1) the southwest corner of the intersection of Fenton Street and Gist Avenue, 2) the southwest corner of the intersection of Fenton Street and Richmond Avenue, and 3) the northwest corner of the intersection of Fenton Street and King Street. If this dimension is too narrow for trucks to negotiate, explore the use of mountable truck aprons.
2. Install centerline hardening on King Street and Richmond Avenue to improve left-turning drivers' view of the crosswalk and to reduce the speed of left turning motor vehicles from Fenton Street to King Street.

Parkland

Approve parkland impacts associated with the construction of sidewalk, bikeway and intersection improvements with the following conditions:

3. MCDOT will continue to coordinate with M-NCPPC to finalize the condition and timing of the proposed Philadelphia Avenue (3,925 square feet) and Blair Place paper street (2,501 square feet) conveyance to parkland.
4. Along Fenton Street Urban Park, remove the 17-inch ornamental cherry tree.
5. Along Fenton Street Urban Park, modify the project so that the sidewalk and bikeway do not extend past the existing limits of the sidewalk to avoid the critical root zone of the 30-inch scarlet oak including, where possible, at the corner of Richmond Avenue and Fenton Street. Narrow the bikeway from 10 feet to 8 feet and widen the street buffer from 1 foot to 3 feet.
6. Tree removal on parkland will need to be mitigated with replanting on parkland with guidance from Parks at a replacement rate of 1 inch-to-1 inch or pay tree loss mitigation of $100.00 per inch. This planting mitigation is separate from the planting proposed within the right-of-way.
7. Construction plans must be submitted to the M-NCPPC Department of Parks for review as part of the Park Construction Permit process to ensure that all work is performed in accordance with M-NCPPC standard details, specifications, and policies. No work on parkland may occur until an approved Park Construction Permit is issued for the project.

Environmental

8. Provide plans to demonstrate compliance with the Forest Conservation exemption approval memo, which references tree protection measures, mitigation plantings, etc.
9. Provide landscape plans that address previous comments and/or Applicant responses to previous comments. Landscape Details sheet should include all required notes and details.

SECTION 7

FENTON STREET BIKEWAY

Project Description

The Montgomery County Department of Transportation (MCDOT) is proposing to construct two-way separated bike lanes along the west side of a 0.7-mile section of Fenton Street between Gist Avenue and Cameron Street. This bikeway will connect the Metropolitan Branch Trail, Montgomery College, Fenton Village, the Silver Spring Library Purple Line Station, Ellsworth Street and the Spring Street separated bike lanes. It is designated as one of the highest priority bikeways in the 2018 *Bicycle Master Plan*. The project design is consistent with the Planning Board's recommended alternative, which was reviewed by the Board on January 21, 2021.

The project includes a few notable features:

- An intermediate level bikeway to differentiate the bikeway from the sidewalk.
- Floating bus stops at four locations.
- Truck loading and paratransit zones on many blocks.
- Bicycle signals at up to eight intersections.
- Exclusive left turns for northbound traffic on Fenton Street.

Construction of the project is to be completed in two phases. Construction of the section in Fenton Village between Gist Avenue and Bonifant Street is anticipated to begin in spring 2023. Construction of the section between Bonifant Street and Cameron Street is anticipated to begin in 2024 and is contingent upon funding availability.

Design plans for this project are located at:

https://eplans.montgomeryplanning.org/daiclinks/pdoxlinks.aspx?apno=MR2022011&projname=Fenton%20Street%20Bikeway

To accommodate the bikeway, the following changes will be made to the corridor:

Between Gist Avenue and Wayne Avenue, space for the bikeway will be provided by removing a row of parking on most blocks, as well as the center turn lane. This will result in a typical design with a 10-foot-wide bikeway with a 4-foot-wide buffer from traffic as shown in Figure 16.

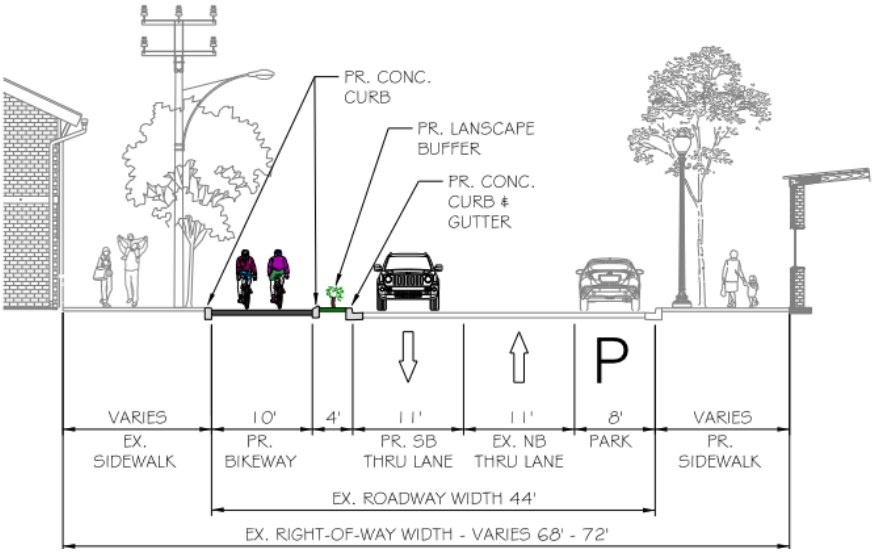

Figure 16: Typical Section between Gist Avenue and Wayne Avenue

Between Wayne Avenue and Ellsworth Drive, space for the bikeway will be provided by removing a lane of traffic, reducing the roadway from three through lanes to two through lanes. This will result in a typical design with a 10-foot-wide bikeway and a 4-foot-wide buffer from traffic, as shown in Figure 17.

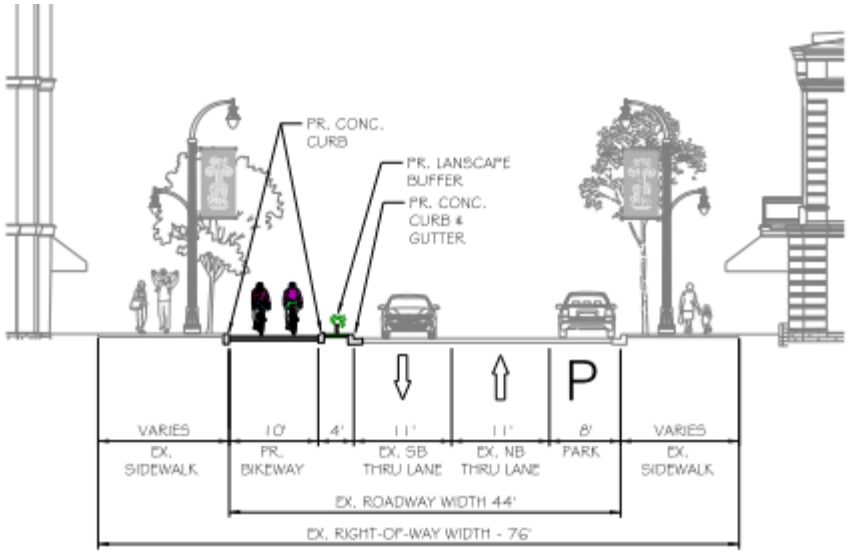

Figure 17: Typical Section between Wayne Avenue and Ellsworth Drive

Between Ellsworth Drive and Colesville Road, space for the bikeway will be provided by removing a lane of traffic, reducing the roadway from four through lanes to three through lanes. This will result in a typical design with a 10-foot-wide bikeway and a 5-foot-wide buffer from traffic, as shown in Figure 18.

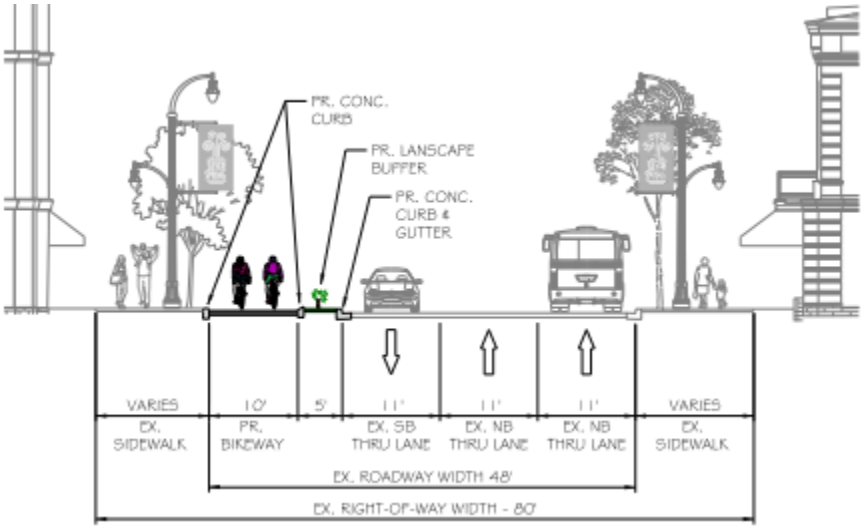

Figure 18: Typical Section between Roeder Road and Colesville Road

Between Colesville Road and Cameron Street, space for the bikeway will be provided by narrowing traffic lanes and removing a row of parking. This will result in a typical design with a 10-foot-wide bikeway and a 5-foot-wide buffer from traffic, as shown in Figure 19, but will be narrowed to an 8-foot-wide bikeway and a 3-foot-wide buffer from the street as it approaches Colesville Road.

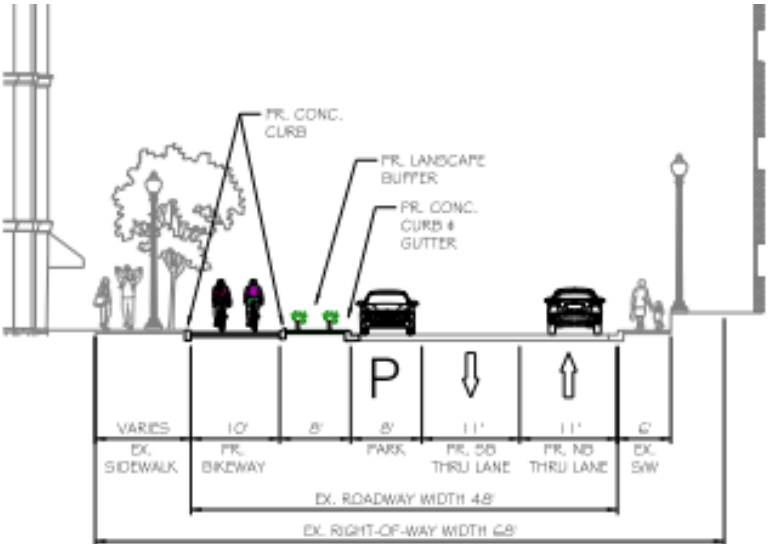

Figure 19: Typical Section between Colesville Road and Cameron Street

Master Plan Consistency

The Fenton Street Bikeway project is consistent with the applicable master plans. The 2018 *Bicycle Master Plan* recommends separated bike lanes on Fenton Street between Gist Avenue and Cameron Street.

Analysis

Transportation

The Fenton Street Bikeway project is a high-quality bikeway that is largely consistent with the design standards in the Complete Street Design Guide and that introduces a number of innovative features.

Complete Streets Design Guide

- **Street Buffer** buffers provide separation between motor vehicles (traffic lanes or on-street parking) and the bikeway, increasing both the safety and comfort of bicycling. The minimum street buffer in the Complete Streets Design Guide is 3 feet for a public project. The Fenton Street Bikeway project provides a street buffer that is typically 4+ feet wide, except between Silver Spring Avenue and Thayer Avenue where it drops to 2 feet adjacent to on-street parking and in front of the Ellsworth Place shopping mall where it drops to 2 feet due to the presence of transformer grates located in the street.
- The minimum **bikeway width** in the Complete Streets Design Guide is 8 feet for two-way separated bike lanes. The Fenton Street Bikeway project provides a bikeway that is typically 10 feet wide but narrows to 8 feet wide in some locations.
- **Pedestrian / bicycle buffers** encourage pedestrians and bicyclists to travel in their designated spaces and can provide space for plantings, stormwater management and street furniture. In conformance with the Complete Streets Design Guide, a minimum of 2 feet separation is provided between the bikeway and the sidewalk at all locations except adjacent to the Marriot Hotel layby, just to the north of Wayne Avenue.
- The default **curb radius** is 15 feet to shorten the crossing and reduce the speed of turning traffic. The Fenton Street Bikeway project proposes curb radii that are 20 feet at multiple locations.

Intermediate Level Bikeways

As with the Fenton Street at MD 410 Intersection Reconstruction project, the Fenton Street Bikeway project also includes intermediate-level bikeways.

Bus Stops

The Fenton Street bikeway project includes four floating bus stops on the west side of Fenton Street at the intersections with Ellsworth Drive, Bonifant Street, Thayer Avenue, and Silver Spring Avenue.

One challenge for the project is the bus stop at the northwest corner of the intersection of Fenton Street and Colesville Road, shown in Figure 20. Due to limited right-of-way, there is insufficient space to separate the bikeway from the transit waiting area.

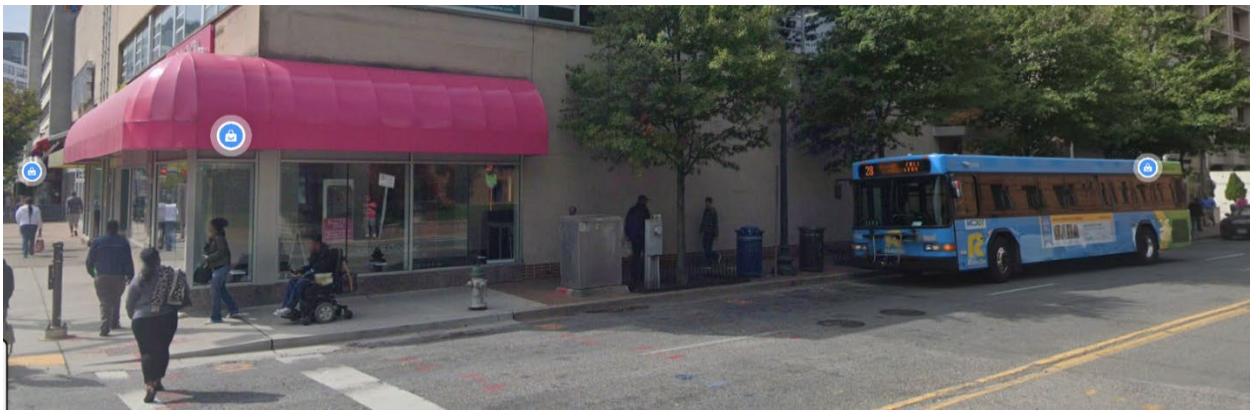

Figure 20: The existing bus stop at the northwest corner of Colesville Road and Fenton Street

Therefore, in this location MCDOT is proposing to provide a shared platform stop, which provides a bikeway at sidewalk level that can be traversed by transit passengers walking between the bus stop and the bus, as shown in Figure 21. While this approach is not ideal, there are likely to be fewer than 5 boardings and alightings on average per hour at this stop.[2]

Figure 21: Example of a Shared Platform Bus Stop

Loading Zones

Due to the unmet need for vehicle loading and unloading along the corridor, as well as the removal of on-street parking, the project will provide loading zones on many blocks in the corridor. Loading zones

[2] Based on data collected prior to the onset of the COVID-19 pandemic, zero boardings and alightings were recorded at the RideOn bus stop at the northwest corner of Colesville Road and Fenton Street. However, MCDOT plans to close an adjacent bus stop that currently experiences about 80 boardings and alighting per weekday and some of these riders may shift to using the Colesville Road / Fenton Street stop. Since Route 18 has a 17-hour span of service, on average fewer than 5 passengers per hour will use the stop (78 passengers divided by 17 hours).

are especially important in Fenton Village, where trucks often load and unload in the center turn lane when on-street parking spaces are not available. Special attention is also provided in front of the Montgomery Center, between Cameron Street and Colesville Road, which has a high demand for paratransit use due to the large number of medical practices in the building.

Signalization

Bicycle signals are being considered at up to eight intersections along the corridor, including: Cameron Street, Colesville Road, Ellsworth Drive, Wayne Avenue, Bonifant Street, Thayer Avenue, Silver Spring Avenue, Sligo Avenue, and MD 410 / Philadelphia Avenue.

Figure 22: Example of a Bicycle Signal

The project will also add exclusive left turn phases for northbound traffic on Fenton Street to eliminate conflicts between left-turning motor vehicles and pedestrians and bicyclists crossing the street along the west side of Fenton Street.

On-Street Parking

The Fenton Street Bikeway project will result in a reduction of 50 on-street parking spaces between Gist Avenue and Cameron Street, as shown in Table 1. However, the east-west streets within one block have 207 on-street parking spaces and the public lots / garages within one block have 4,741 parking spaces.

District	Existing	Proposed	Reduction
Fenton Village	57	22	35
Ellsworth District	12	10	2
North Silver Spring	22	9	13
Total	**91**	**41**	**50**

Table 1: On-Street Parking Impacts

Curb Ramps

Curb ramps should match the width of the adjoining bikeway, sidewalks and crosswalks. As shown in Figure 23, the curb ramps on the west side of Fenton Street (top of the image) match the width of the crosswalk, but the curb ramps on the east side of Fenton Street (bottom of the image) do not.

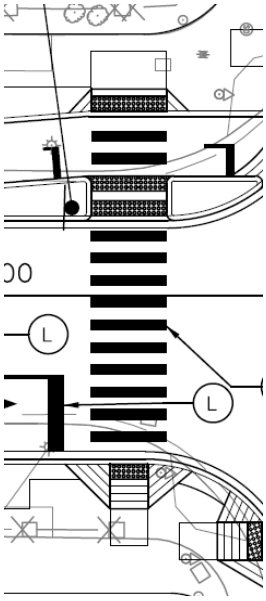

Figure 23: Example of Curb Ramp Dimension at the Intersection of Fenton Street and Sligo Avenue

Intersection of Wayne Avenue and Fenton Street

During the Planning Board's review of MCDOT's Fenton Street Study on January 21, 2021, staff brought up a concern about the orientation of the Purple Line tracks through the intersection of Wayne Avenue and Fenton Street, which creates challenges for bicyclists crossing the west leg of the intersection. As shown in Figure 24, the bike lane markings have a bend in them to encourage bicyclists to cross the Purple Line tracks at as close to a 90-degree angle as possible. This reduces the likelihood of a bicyclist crashing by getting a wheel caught in the trackbed. These markings encourage the safest riding behavior, but they are not likely to be followed. Most bicyclists will continue straight across the intersection. The Planning Board's comments on study therefore included the following comment: "Coordinate with Montgomery Planning staff to undertake a design process to better separate pedestrians, bicyclists, motor vehicles and light rail vehicles at the Fenton Street/Wayne Avenue intersection."

MCDOT staff met with Planning Department staff to review the intersection design and to discuss alternatives to improve the crossing. They indicated that the Purple Line project has committed to

installing flange fillers in the tracks to reduce the chances that bicycle wheels will get caught in the trackbed.

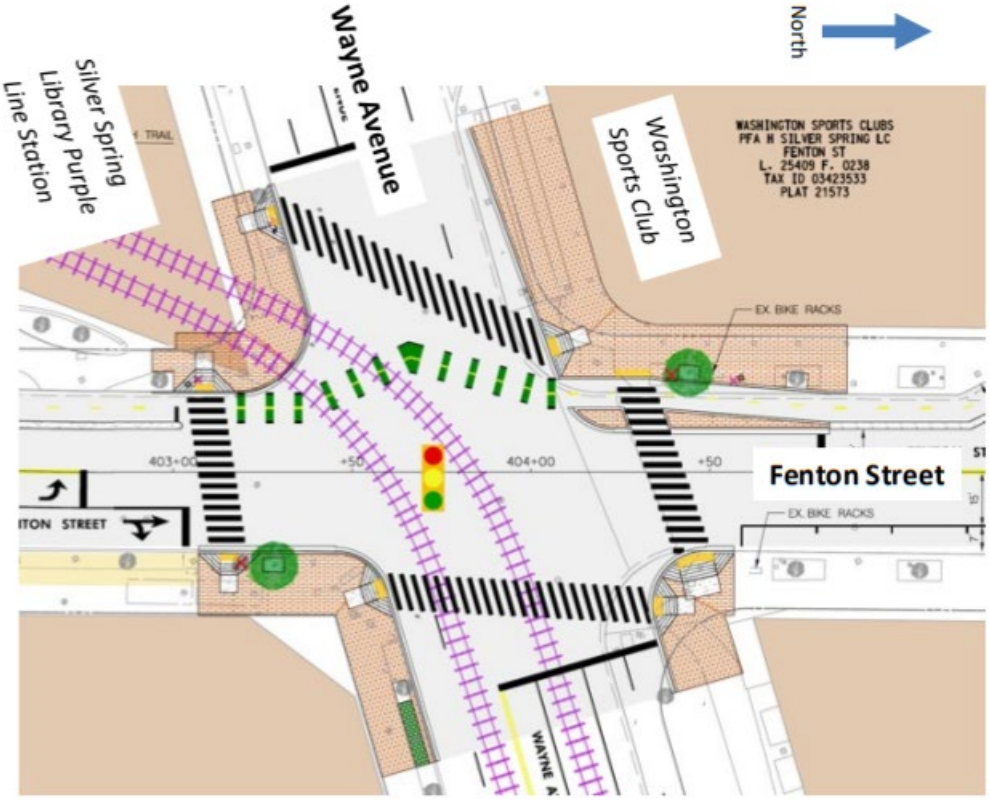

Figure 24: Intersection of Wayne Avenue and Fenton Street

Safeway Entrance

One challenge for the project is the wide driveway entrance to the Safeway on the west side of Fenton Street (see Figure 25). Vehicles entering and exiting the driveway will cross the sidewalk and bikeway and this condition will not likely change until the property is redeveloped. The Planning Board Draft of the Silver Spring Downtown and Adjacent Communities Plan (page 39) identifies the Safeway site as an "opportunity site" and recommends that "vehicular access to the site for parking and/or loading should not be from Fenton Street." As a timeline for redevelopment does not exist, in the interim the plan incorporates pavement markings and signs to warn pedestrians, bicyclists and motorists of the crossing.

Figure 25: Driveway Entrance to Safeway

Environmental

Environmental Guidelines

A Simplified Natural Resource Inventory/Forest Stand Delineation (SNRI/FSD), designated No. 42022042E, was approved for the study area on October 19, 2021. The plan described the existing man-made and natural features of the site including an inventory of significant and mature trees measuring 24-inches or greater in diameter-at-breast height (DBH). The plan shows that the site contains no forest, streams, stream buffers, or wetlands associated with the site. Although the study area contains no forest, many street trees are located throughout the plan area; the trees identified are mainly young trees ranging in size from 6 inches to 20 inches although a few trees identified did reach significant size (24 inches DBH or above).

The plan also identified minor slopes associated with the site; no slopes or 25 percent or greater were identified; soils on the site are classified as urban land and are not highly erodible or otherwise sensitive as defined by the Montgomery County Environmental Guidelines. The project area does not include any properties listed in the locational atlas and index or historic sites. There are no known rare, threatened, or endangered species onsite.

Forest Conservation

This Application is subject to Chapter 22A Forest Conservation Law, however an exemption from submitting a Forest Conservation Plan was confirmed by staff on October 19, 2021 in conjunction with the approval of the SNRI/FSD.

The project is exempt from Article II of the Montgomery County Code, Chapter 22A (Forest Conservation Law), under Section 22A-5(e) because the activity is a State, County, or municipal highway construction activity that is subject to Section 5-103 of the Natural Resources Article of the Maryland Code, or Section 22A-9. All requirements of an exemption for a County or municipal highway construction activity are detailed in Section 22A-6(d) and Section 22A-9 and referenced in previous sections earlier in this report. As conditioned in the Forest Conservation Approval Memo, and referenced in this staff report, this application meets all applicable requirements of Chapter 22A Forest Conservation Law.

Stormwater Management

The project must comply with the requirements of Chapter 19 of the Montgomery County Code. As part of this Application, the Applicant has included a Stormwater Management Concept Study to evaluate providing stormwater management and storm drain improvements for the Fenton Street Bikeway under the Bicycle and Pedestrian Priority Areas (BiPPA) program.

With regard to stormwater management requirements, the Maryland Stormwater Management Act of 2007 requires redevelopment projects to either reduce impervious areas by 75 percent, provide water quality for 75 percent of the impervious area via environmental site design (ESD), or a combination of the previous methods. The more stringent Montgomery County Code requires redevelopment projects to meet the same requirements as new development projects which includes using ESD. However, with this application, the applicant is requesting a waiver for channel protection requirements given that this project is not increasing impervious areas and the proposed development lies in the right-of-way and has insufficient space for the necessary stormwater management facilities. As such, the Applicant has requested a full waiver of stormwater requirements given the site constraints.

Historic Preservation

A portion of the project between Cameron Street and Ellsworth Drive is located within the Silver Spring CBD Locational Atlas Historic District. MCDOT will be required to submit the final construction plans to the Historic Preservation office for review. The project proposal as designed at this time does not qualify as a substantial alteration under Chapter 24A-10, Historic Resources Preservation. This will be verified with the review of the 100 percent drawings and an administrative approval letter can be provided at the conclusion of that review. No further permit review would be required.

Property Acquisition

MCDOT's conservative assessment is that property acquisition may be required for the Fenton Street Bikeway project at three locations in the vicinity of the intersection with Silver Spring Avenue, including:

- 8120 Fenton Street: Additional space is needed to accommodate a bus stop at the southwest corner of Fenton Street and Silver Spring Avenue.
- 8204 Fenton Street (including Café Lessac): MCDOT may need to acquire property where the café seating is currently located, but the seating may remain.
- 8201 Fenton Street (including Italian Kitchen): The existing sidewalk along most of the block is located on private property.

As project design advances, MCDOT will look for opportunities to reduce the need for property acquisition.

Recommendations

Transportation

1. Widen the ramps on the east side Fenton Street to match the crosswalk width.
2. Between Silver Spring Avenue and Thayer Avenue, explore ways to expand the buffer between the bikeway and on-street parking from 2 feet to 3 feet.
3. Per the Complete Street Design Guide, reduce the corner radius from 20 feet to 15 feet where feasible. If this dimension is too narrow for trucks to negotiate, explore the use of mountable truck aprons.

Environmental

4. Symbology used in plan graphics for trees to be removed does not consistently match the legend. Use consistent graphics and ensure that the X for removed trees is bold enough to be clearly identified.
5. Maximize ground cover over sod where possible. Low profile native species would be recommended over sod unless other factors contribute to the necessity for sod.
6. Per the Silver Spring Streetscape Standards, use tree planting methods that maximize soil volume available for new trees. Explore such opportunities and provide details/notes indicating usage.
7. Make use of all applicable standard details and notes including the sequence of events notes.

Historic Preservation

8. Submit final design drawings to the Historic Preservation office for final review so that a letter can be provided verifying that no Historic Area Work Permit is required to proceed with construction.

SECTION 8

PUBLIC ENGAGEMENT

Since the completion of the alternatives analysis phase of the project in spring 2021, MCDOT has conducted two public meetings for the Fenton Street at MD 410 Intersection Reconstruction and Fenton Street Bikeway projects. These include a virtual community meeting on June 22, 2021 that was attended by 50 – 60 people and a virtual community meeting on December 7, 2021 that was attended by about 70 people.

SECTION 9

CONCLUSION

The Mandatory Referral applications for the Fenton Street at MD 410 Intersection Reconstruction project, Mandatory Referral No. MR2022008 and the Fenton Street Bikeway, Mandatory Referral No. MR2022011, are consistent with the specific recommendations in the 2018 *Bicycle Master Plan*. Staff recommends approval of the Mandatory Referral with the recommendations cited above and transmittal of comments to the Montgomery County Department of Transportation.

ATTACHMENTS

Attachment A: Planning Board Letter to Council President Tom Hucker, January 21, 2021.

Attachment A

MONTGOMERY COUNTY PLANNING BOARD
THE MARYLAND-NATIONAL CAPITAL PARK AND PLANNING COMMISSION

January 25, 2021

Tom Hucker, Council
President, Montgomery County Council
Stella B. Werner Council Office Building
100 Maryland Avenue
Rockville, Maryland 20850

Re: Fenton Street Separated Bike Lane Alternatives

Dear Council President Hucker:

On January 21, 2021 the Montgomery County Planning Board reviewed the Fenton Street Separated Bike Lanes project and voted 5-0 to forward the following comments:

1) Advance Alternative E as the preferred alternative.
2) Remove additional on-street parking from the project if doing so would allow the bikeway and street buffer to be widened to achieve the dimensions recommended in the Bicycle Master Plan.
3) For future bikeway projects, preservation of on-street parking should be the lowest priority.
4) Coordinate with Montgomery Planning staff to undertake a design process to better separate pedestrians, bicyclists, motor vehicles and light rail vehicles at the Fenton Street/Wayne Avenue intersection.

Thank you for your attention to this matter. If you have any questions or comments concerning our review, please contact Eli Glazier at 301-495-4548.

Sincerely,

Casey Anderson
Chair

CA:EG:aj

cc: Matthew Johnson MCDOT
Corey Pitts, MCDOT
Daniel Sheridan, MCDOT
Christopher Conklin, MCDOT
Gwen Wright
Jason Sartori
Stephen Aldrich
David Anspacher
Eli Glazier
Elza Hisel-McCoy
Dr. Glenn Orlin