

BURNT HILL BRIDGE OVER LITTLE BENNETT CREEK MANDATORY REFERRAL (MR2025014)

Description

This is a Mandatory Referral on a project submitted by the Montgomery County Department of Transportation which proposes to construct a replacement bridge over Little Bennett Creek. The bridge is located on a rustic road.

No. MR2025014

MCPB

2425 Reddie Drive

Item No. #10

Floor 14

05/01/2025

Wheaton, MD 20902

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LOCATION

Burnt Hill Road over Little Bennett Creek

ASTER PLAN

2006 *Damascus Master Plan*

APPLICANT

Montgomery County Department of Transportation

ACCEPTANCE DATE

February 24, 2025

REVIEW BASIS

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

Summary

- Staff recommends approval of the mandatory referral with recommendations, and transmittal of comments to Montgomery County Department of Transportation.
- The Applicant agreed to a 30-day extension of the review period.

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SECTION 1 – COMMENTS

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

1. Construction plans must be submitted to the Maryland-National Capital Park and Planning Commission (M-NCPPC) Montgomery County 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.
2. The Montgomery County Department of Transportation (MCDOT) must compensate M-NCPPC at fair market value for all land that will transfer from M-NCPPC to MCDOT's road right-of-way (ROW), estimated at approximately 3,692 square feet. Payment for the transferred land must occur before issuance of the Park Construction Permit. The new ROW will be transferred to MCDOT by M-NCPPC via a Release Agreement and via perpetual easement, recorded in the County Land Records.
3. MCDOT will continue to coordinate with M-NCPPC on the design of the required instream structures in Little Bennett Creek to ensure that a stable stream setting is provided.
4. M-NCPPC Montgomery Parks tree mitigation shall either be (1) replacement planting on parkland at a rate of one-inch to one-inch diameter or (2) a monetary per inch caliper basis at the rate of \$200/diameter inch, to be paid to Montgomery Parks before the completion of construction.

SECTION 2 – INTRODUCTION

The Montgomery Department of Transportation (MCDOT) proposes to replace the bridge carrying Burnt Hill Road over Little Bennet Creek. The existing bridge, which was constructed in 1955, is in poor condition. Burnt Hill Road is classified as a rustic road and the Project is directly adjacent to park owned property.

SECTION 3 – PROJECT DESCRIPTION

Project Description

The proposed project (“Burnt Hill Road Bridge Replacement Project”, “Project”) will replace bridge number M-0157X01, which carries Burnt Hill Road, a two-lane rustic road, over Little Bennett Creek. The project location is shown in Figure 1. The Burnt Hill Road Bridge Replacement Project involves the removal of the existing bridge infrastructure and construction of a new prestressed concrete slab bridge, riprap scour protection, stream stabilization features, and new landscaping. The existing bridge was built in 1955 and is in poor condition due to the advanced deterioration of the superstructure. Due to the deterioration, MCDOT has decided that replacement is warranted.

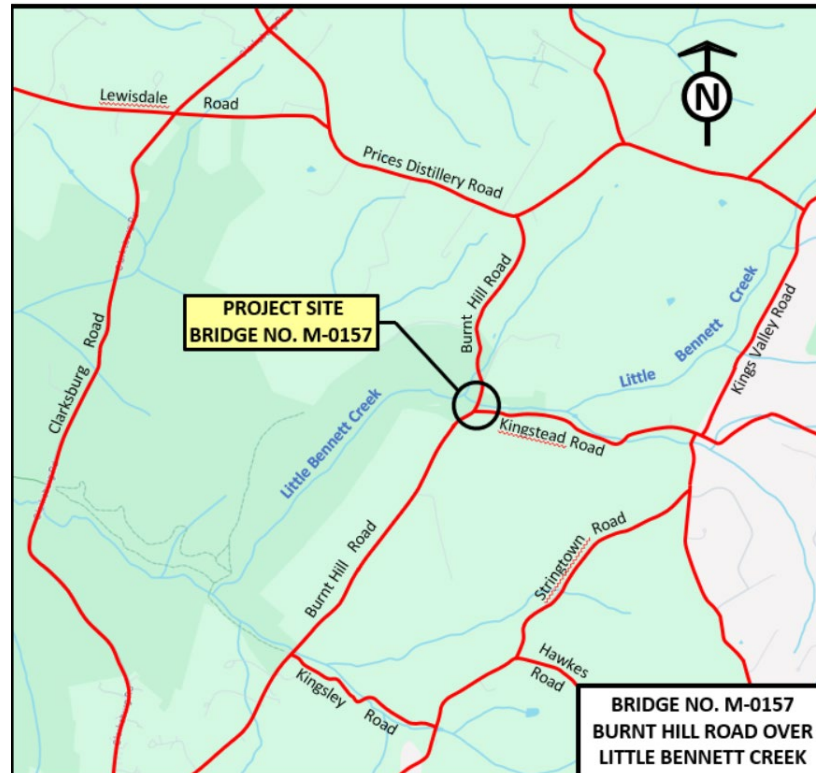


Figure 1: Project Location

- The replacement and widening of the proposed bridge deck from 21 feet wide to 24 feet wide,
- Construction of a slightly longer bridge with the bridge length increasing from 21 feet (existing) to 34 feet (proposed).
- Construction of new concrete bridge abutments with wing walls,
- Full-depth road reconstruction on the immediate bridge approaches,
- New guiderail installation on both sides of the bridge, and
- Milling and overlay within the remainder of the project area.
- The existing two travel lanes with no shoulder or sidewalk on either side of the road will be maintained with this design.
- Riprap scour protection, stream stabilization features and landscaping (presented in more detail in the Parkland Impacts in Section 5).

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The typical bridge cross section for the project is shown in Figure 3.

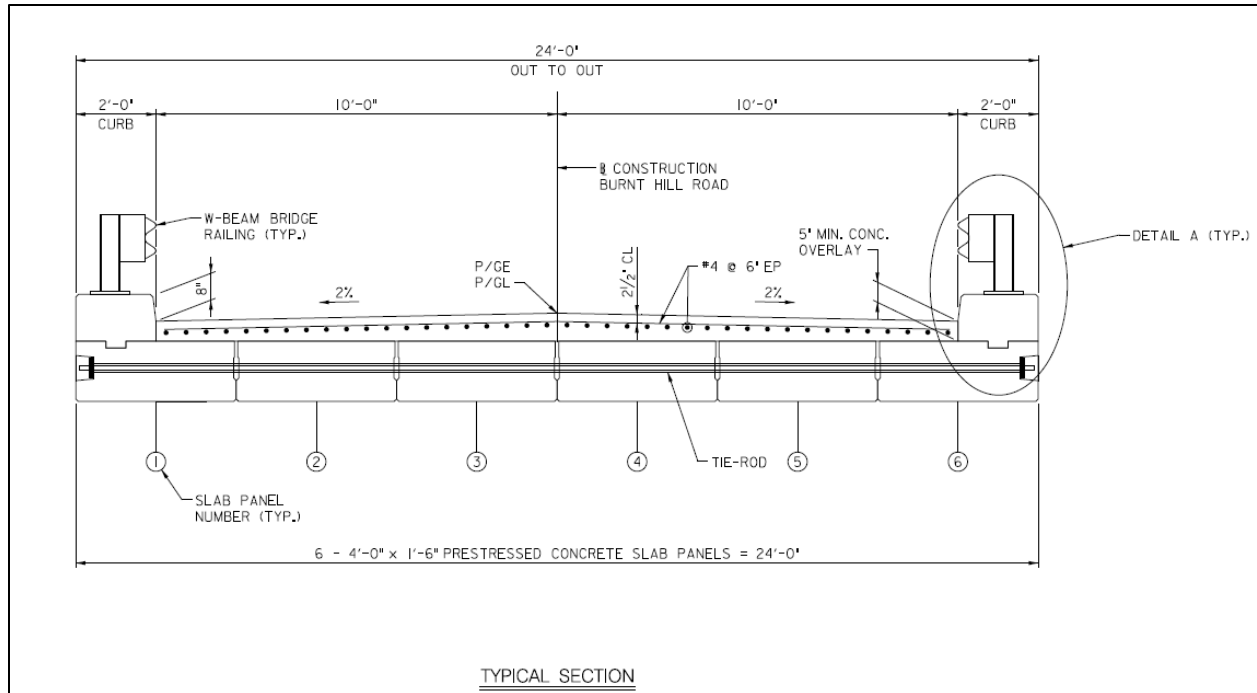


Figure 3: Proposed Bridge Cross Section

The approaches to the Burnt Hill Road bridge will be improved with full-depth pavement, as shown below in Figure 4.

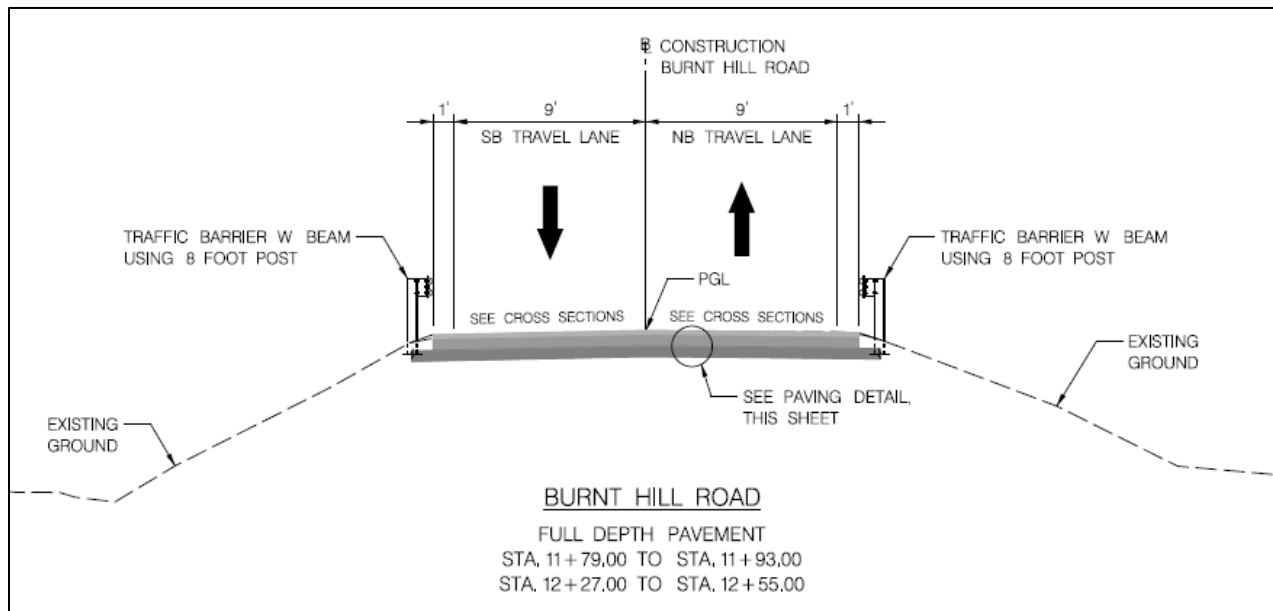


Figure 4: Cross Section for Bridge Approaches

Background

There are no previous Planning Board actions on this project.

Surrounding Neighborhood

The surrounding neighborhood is rural and zoned as Agricultural Reserve (AR). The project is within Little Bennett Regional Park and Little Bennett Creek Stream Valley Park.

Burnt Hill Road is a two-lane Rustic Road with a posted speed limit of 40 mph and an advisory speed through the project area of 35 mph. Photos of Burnt Hill Road in the vicinity of Kingstead Road and Little Bennett Creek are shown in Figure 5, Figure 6, and Figure 7.



Figure 5: Burnt Mill Road at Kingstead Road, Looking North



Figure 6: Burnt Mill Road at Existing Bridge, Looking North



Figure 7: Burnt Hill Road at Existing Bridge, Looking South

SECTION 4 – MANDATORY REFERRAL AUTHORITY AND PROCESS

Mandatory Referral review is guided by the Montgomery Planning Mandatory Referral Review Uniform Standards (December 2022) and the authority granted through the Maryland Land Use Article, Section 20-301, et seq. As set forth in Sections 20-301 and 20-302, the Montgomery County Planning Board has jurisdiction over mandatory referral projects presented by the federal government, State of Maryland, Montgomery County government, Montgomery County Board of Education, and public utilities, among others, for:

- (1) acquiring or selling land;
- (2) locating, constructing, or authorizing a road, park, public way or ground, public building or structure, or public utility; or
- (3) changing the use of or widening, narrowing, extending, relocating, vacating or abandoning any of the previously mentioned facilities.

The Planning Board must review such projects and transmit comments on the proposed location, character, grade, and extent of the activity to the project applicant.

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

- (1) whether the proposal is consistent with the County's General Plan, functional plans, the approved and adopted area master plan or sector plan and any associated design guidelines, and any other public plans, guidance documents, or programs for the area;
- (2) whether the proposal is consistent with the intent and the requirements of the zone in which it is located;
- (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;
- (4) whether the locations of buildings and structures, open spaces, landscaping, recreation facilities, and pedestrian and vehicular circulation systems are adequate, safe, and efficient;
- (5) whether the proposal has an approved NRI/FSD and a preliminary SWM Concept Plan, and meets the requirements of the Forest Conservation law (Chapters 19 and 22A of the Montgomery County Code);
- (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 on public property, the Board must determine if the plan meets any additional applicable standards for Special Protection Areas;
- (7) whether or not the site would be needed for park use if the proposal is for disposition of a surplus public school or other publicly owned property; and
- (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.

SECTION 5 – MANDATORY REFERRAL ANALYSIS AND FINDINGS

Master Plan Consistency

As described in the Uniform Standards outlined in Section 4 of this staff report, the Planning Board considers whether the proposal is consistent with the County's General Plan, functional plans, area master plans, and any associated design guidelines.

The Project is located within the 2006 *Damascus Master Plan* area. Burnt Hill Road is identified as a Rustic Road and is therefore also subject to the 2023 *Rustic Roads Functional Master Plan Update*. Montgomery County's Rustic Roads Program preserves historic and scenic roads that reflect the County's agricultural character. Rustic Roads generally carry local traffic and are designated based on surrounding land uses and natural features, historic value, and road characteristics.

Both master plans identify Burnt Hill Road as a 70-foot-wide right-of-way. There are no planned bicycle facilities.

The Burnt Hill Road bridge is master planned as part of the 2023 *Rustic Roads Functional Master Plan* (RRFMP) Update. The 2023 RRFMP Update lists the narrow bridge near Kingstead Road as a significant feature of the road. Significant features of rustic roads are those features identified by County Council that must be preserved when a rustic road is maintained or approved. Executive Regulations require that maintenance and improvements of all bridges on rustic roads be of a design and material that preserves or enhances the rustic appearance of the road. For most of the bridges designated as significant features, it is the contribution the bridge makes to the rustic character of a road rather than a particular aesthetic of the bridge structure that is to be preserved. A new bridge should be of a similar scale to the existing bridge and the bridge deck should be no wider than the existing approaches.

The road profile for Burnt Hill Road in the RRFMP Update does not call out any particular details about the existing bridge other than to describe it as “*relatively narrow—18.1 feet wide—and ... constructed as a concrete deck with concrete T-beams*” (p. 76). The 18.1-foot wide bridge also has one-foot, six-inch curbs on both sides for a total bridge width of about 21 feet. The new bridge will be 20 feet wide curb-to-curb and 24 feet wide overall, a slight increase compared to the current design. The bridge will also be lengthened from its current 21 feet (19-foot span) to 34 feet (30-foot span).

Other Mandatory Referral Uniform Standard Findings

Regarding the other aspects outlined in the Uniform Standards in Section 4 of this staff report, not all of them apply to Mandatory Referrals for public transportation projects. The Project is consistent with the aspects of the Uniform Standards listed below, and reasoning is provided. All other aspects are not applicable to this Project.

- *Consistency with the intent and the requirements of the existing zoning*
 - The proposed Project is consistent with the existing commercial and residential zones. It will improve safety and access to the existing land uses and support future development consistent with the zoning.
- *Compatibility with the surrounding neighborhood and properties*
 - The design and layout of the proposed Project is compatible with the surrounding neighborhood and will improve travel conditions to the standard outlined in master plans for the area.
- *Adequacy, safety, and efficiency of landscaping and pedestrian and vehicular circulation*
 - The entire Project aims to improve safety of the transportation network in the Project area, not capacity.
- *Approval of NRI/FSD, preliminary SWM Concept Plan, and Forest Conservation law compliance*
 - The Project is exempt from the forest conservation plan requirement. A forest conservation exemption (No. 42024153E) was granted under the provisions of Section 22A-5(e) as “a state or county highway project”. The exemption was confirmed on August 21, 2024, and a copy of this letter is provided with this Staff Report as Attachment B. The project received stormwater concept approval from the Department of Permitting Services in its letter dated June 21, 2024, and a copy of this letter is provided with this Staff Report as Attachment C.

Transportation Best Practices

COMPLETE STREETS DESIGN GUIDE

Except for the establishment of a default target speed, the requirements for Rustic Roads and Exceptional Rustic Roads supersede the *Complete Streets Design Guide*. Therefore, the Guide does not apply to the proposed bridge. Target speeds for rustic roads are defined in Montgomery County Code, Chapter 49 as 25 mph by default.

PEDESTRIAN LEVEL OF COMFORT AND BICYCLE LEVEL OF TRAFFIC STRESS

There will be no change to the Pedestrian Level of Comfort or Bicycle Level of Traffic Stress as part of the Project as it simply replaces the existing bridge.

Environment

ENVIRONMENTAL GUIDELINES

The Project area contains environmental buffers, streams, or other sensitive features. The Project is within the Little Bennett watershed, a Use III-P designation. The Project is not located in a Special Protection Area. The County Department of Environmental Protection has classified water quality as in “good condition”.

The Project proposes 0.75 acres of forest removal, has impacts on 0.86 acres of Stream Valley Buffer (SVB) and 0.86 acres of impacts of 100-Year-Floodplain. The environmental impacts are necessary and unavoidable to achieve the design standards of creating the bridge, and the impacts have been minimized to the greatest extent possible.

FOREST CONSERVATION

The Project is exempt from the forest conservation plan requirement. A forest conservation exemption (No. 42024153E) was granted under the provisions of Section 22A-5(e) as “a state or county highway project”. The exemption was confirmed on August 21, 2024.

While the Project is exempt from Article II of Forest Conservation Law, per Section 22A-9, the Applicant is still required to:

- a. Minimize forest cutting, clearing, and loss of specimen trees to the extent possible while balancing other design, construction, and environmental standards. The constructing agency must make a reasonable effort to minimize the cutting or clearing of trees and other woody plants.
- b. If the forest to be cut or cleared for a county highway project equals or exceeds 20,000 square feet, the constructing agency must reforest a suitable area at the rate of one acre of reforestation for each acre of forest cleared.
- c. Mitigation for loss of significant, specimen, or champion trees. Mitigation amounts are based on the size and character of the tree.

The Applicant submitted a plan to comply with Sec. 22A-9, showing impacts to forest and trees. The Applicant worked with Planning Staff to minimize the limits of disturbance (LOD) and alter some design aspects of the Project; however, these efforts did not eliminate forest and tree impacts. The Project proposes to remove approximately 32,670 square feet (0.75 acres) of forest requiring the Applicant to reforest a suitable area at the rate of one acre of reforestation for each acre of forest

cleared. Therefore, the Applicant must mitigate this loss at an off-site forest mitigation bank or via fee-in-lieu if a bank is not available.

One (1) specimen tree (31" DBH) is being removed by this project.

Mitigation should be at a rate that approximates the form and function of the trees removed. Therefore, Staff is recommending that replacement occur at a ratio of approximately one inch DBH for every four inches DBH removed. This means that for the 31 inches of trees removed, the applicant will plant eight, 2-inch caliper trees.

Historic Preservation

HISTORIC PRESERVATION COMMENTS

The Project will not have impacts on any County-designated historic properties and a Historic Area Work Permit will not be required.

Parks Department

PARKLAND AND RESOURCE DESCRIPTION

The proposed bridge construction occurs in MCDOT ROW and on parkland. The Project will result in temporary and permanent impacts on the west side of the project within Little Bennett Regional Park and on the east side of the project within Little Bennett Creek Stream Valley Park. Little Bennett Regional Park stretches across 3,700 acres and offers amenities such as a playground, campground, multiple historic sites, and over 25 miles of scenic natural surface trails. The impacted parkland within Little Bennett Regional Park is designated as the Little Bennett Best Natural Area. This designation indicates that this area has a high natural resources value. The Little Bennett Best Natural Area consists of good quality oak-dominated forest, as well as good quality successional meadows, high quality skunk cabbage seeps, and extensive wet meadows. Little Bennett Creek Stream Valley Park consists of over 86 acres that serve to protect Little Bennett Creek and its floodplain, as well as other natural resources; this park remains undeveloped for active recreation. There is no active recreation amenities located in the vicinity of the project.

The existing bridge and proposed bridge span Little Bennett Creek, which is confluent to the Lower Monocacy River. Data was collected within this stream reach in 2020 to measure and better understand the health of the stream and aquatic biological community. The resulting data identified the stream as being in "good" condition, on a scale of poor-fair-good-excellent.



Figure 8: Little Bennett Creek and Existing Bridge

Little Bennett Creek is designated as a Use Class III-P stream, which means the stream is classified as a nontidal cold water and public water supply stream. The Maryland Department of the Environment (MDE) enforces Time of Year Restrictions (TOYRs) for Use III streams that begin October 1 and extend until April 30; this means no instream work can occur during this time.



Figure 9: Little Bennett Creek

PARKLAND IMPACTS

The bridge replacement will require minimal permanent impact on parkland for the bridge structure and temporary impacts on parkland for the construction and access. In addition, stream stabilization and habitat improvements will require temporary construction access on parkland upstream and downstream of Burnt Hill Road.

Tree impacts will consist of the removal of up to 16 trees required for construction and access. These removals will be mitigated by either (1) replacement planting on parkland at a rate of one-inch to one-inch diameter or (2) a monetary per inch caliper basis at the rate of \$200/diameter inch, to be

paid to Montgomery Parks prior to completion of construction. These plantings will be done per Parks' specifications and are intended to fulfill Montgomery Parks' tree mitigation requirements; any other regulatory tree requirements are separate from these requirements.

MCDOT will include Natural Channel Design instream stabilization and enhancement features (per Parks Standard Details) upstream (~200 feet) and downstream (~225 feet) of the new bridge. Traditional bridge construction techniques generally reduce the stream width and harden the banks, which accelerates stream flows and increases the erosive force of the water. However, this proposed bridge will be approximately 10' 9" longer than the existing bridge and will accommodate larger stormflows, less erosive flows, and improved aquatic passage. Montgomery Parks appreciates MCDOT's commitment to improving the stream condition at Little Bennett Creek by building a new bridge with more capacity for the stream and restoring eroded banks upstream and downstream of the bridge. In addition, stream habitat will be improved by the construction of stable riffles and pools that provide varied aquatic habitat. Finally, the drainage channel from the existing wetland upstream of the bridge will be stabilized with rock sills and rip-rap material, and will tie into the existing stream channel.

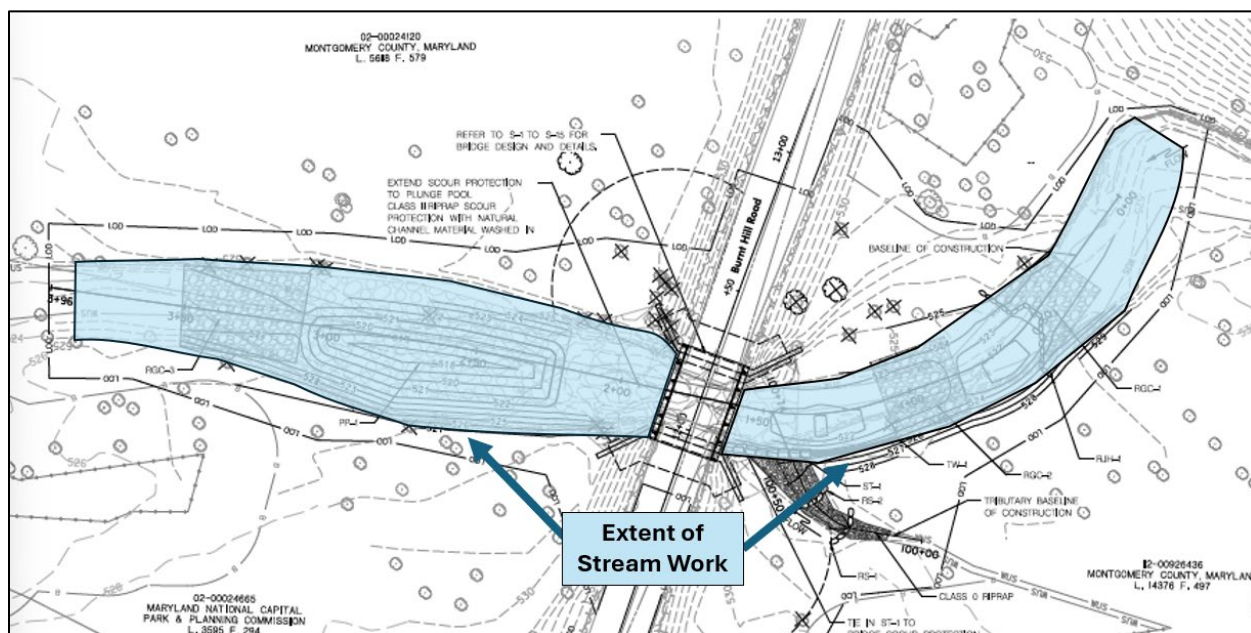


Figure 10: Extent of Stream Work

PARK CONSTRUCTION PERMIT

MCDOT must obtain a Park Construction Permit from Montgomery Parks before commencement of any construction activities on parkland. Plans submitted for Park Construction Permit review must include existing topography and utilities, and identify and locate all trees (with size and species) that are 6-inches DBH and greater within 100 feet of the proposed Limit of Disturbance on park property. During the Park Construction Permit review, Parks Staff will work with MCDOT to minimize impacts to

parkland to the greatest extent possible and avoid all critical resources identified. MCDOT will continue to coordinate with Montgomery Parks on the design of the required instream structures within Little Bennett Creek to ensure that a stable stream setting is provided. Montgomery Parks tree mitigation will be fulfilled through either (1) replacement planting on parkland at a rate of one-inch to one-inch diameter or (2) a monetary per inch caliper basis at the rate of \$200/diameter inch, to be paid to Montgomery Parks before completion of construction.

RIGHT-OF-WAY

The current project design requires approximately 2,180 square feet (0.05 acre) of Little Bennett Regional Park and approximately 1,512 square feet (0.035 acre) of Little Bennett Creek Stream Valley Park to be added to the MCDOT ROW to accommodate the new bridge structure, creating a permanent impact to the park.

As two of the impacted parcels (parcel ID 00024120 and parcel ID 00926436) are county-titled parkland under control and management of the Commission via the 1972 County-Commission Agreement, property rights will be transferred to ROW via a Release Agreement that the Commission will execute and record in the County Land Records.

Any approved Commission parkland known as Little Bennett Regional Park (parcel ID 00024665) to be added to the MCDOT Burnt Hill Road ROW will be transferred to the County, as appropriate, via perpetual easement.

Since the funds used to acquire this land were appropriated to the Commission for parks and open space purposes, M-NCPPC Montgomery Parks must be compensated at fair market value for the land area that will no longer be serving park purposes. Payment for the new ROW area must be made to Montgomery Parks prior to issuance of the Park Construction Permit. Commission land that is proposed to be transferred to MCDOT is highlighted in Figure 5 below.

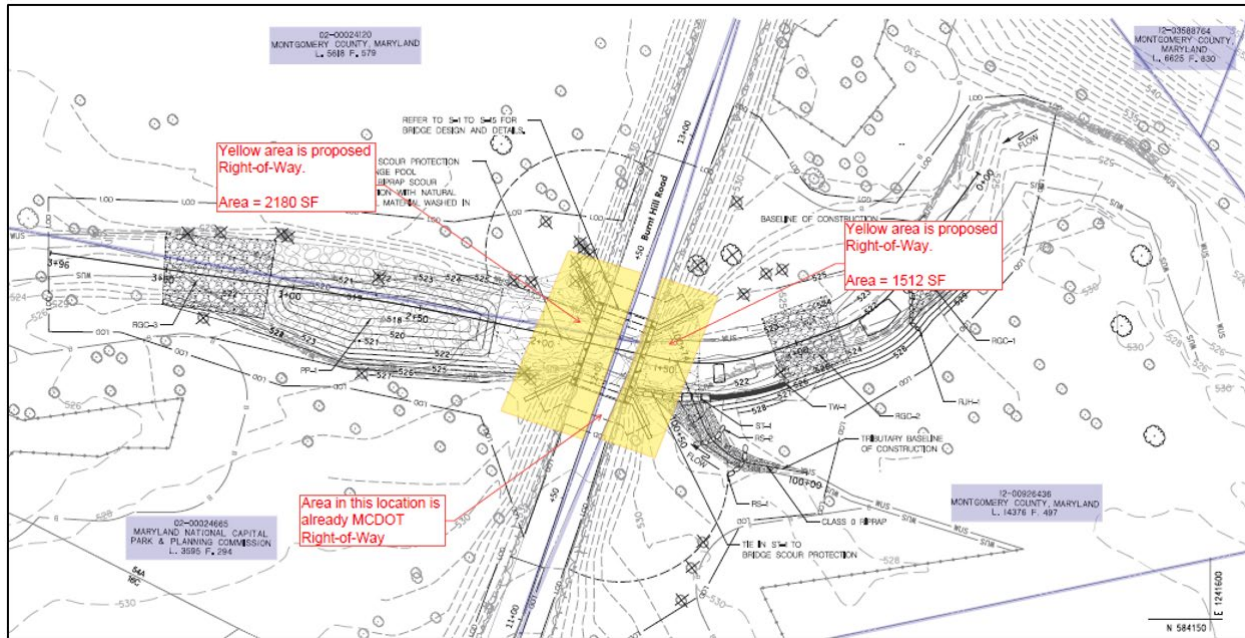


Figure 11: Area of Proposed Right-of-Way, highlighted in yellow.

PARKS COMMENTS

1. 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.
2. MCDOT must compensate the M-NCPPC at fair market value for all land that will transfer from M-NCPPC to MCDOT's road right-of-way (ROW), estimated at approximately 3,692 sf. Payment for the transferred land must occur before issuance of the Park Construction Permit. The new ROW will be transferred to MCDOT by M-NCPPC via a Release Agreement and via perpetual easement, recorded in the County Land Records.
3. MCDOT will continue to coordinate with M-NCPPC on the design of the required instream structures in Little Bennett Creek to ensure that a stable stream setting is provided.
4. M-NCPPC Montgomery Parks tree mitigation shall either be (1) replacement planting on parkland at a rate of one-inch to one-inch diameter or (2) a monetary per inch caliper basis at the rate of \$200/diameter inch, to be paid to Montgomery Parks before the completion of construction.

SECTION 7 – COMMUNITY OUTREACH

After Planning Staff accepted the Mandatory Referral for review, Montgomery Planning notified local civic and homeowner’s associations and other interested parties of this proposal. As of the date of this report, no comments have been received by email or letter.

MCDOT sent the 30% design plans for the new bridge to the Rustic Roads Advisory Committee (RRAC) on July 18, 2023; due to short notice, at their July 20 meeting the Committee asked their roadway engineering specialist to review the plans to discuss at a later meeting. MCDOT presented the 30% designs to the RRAC at their August 24, 2023, meeting, where the Committee objected to the proposed widening, but asked MCDOT to investigate the reasoning behind the widening and lengthening of the new bridge. On September 26, 2023, MCDOT provided responses to the Committee’s concerns. MCDOT explained that the increase in bridge width is for safety reasons and the increase in length is to reduce the scouring susceptibility from Little Bennett Creek. The lengthened bridge would have presented even more safety concerns if the bridge deck were not widened because there would be an increased “pinch point” along the road at the bridge without additional width. The roadway is to be widened to 20 feet at the bridge approaches, but this is consistent with the current roadway width at the extents of the project. The RRAC discussed the project at their meeting on September 28, 2023, where they supported increasing the width of the bridge. MCDOT sent the 60% designs to the Committee on December 4, 2023. The RRAC reviewed the 60% design on December 7, 2023, and supported the plans as proposed.

The new design is of a larger scale than the existing bridge, but MCDOT appears to have made every effort to minimize the new bridge's size. The design of the bridge is similar to the existing bridge, which helps preserve the rustic character of the road.

SECTION 8 – CONCLUSION

Staff recommends transmittal of comments to MCDOT.

With the recommendations cited above, the Mandatory Referral application for reconstruction of the Burnt Hill Bridge Over Little Bennet Creek, designated Mandatory Referral No. MR2025014, is consistent with the uses allowed by the Zone and does not conflict with recommendations of the 2006 *Damascus Master Plan* or the 2023 *Rustic Roads Functional Master Plan Update*. Staff recommends approval of the Mandatory Referral with the recommendations at the beginning of the staff report.

SECTION 9 – ATTACHMENTS

Attachment A: Project Design Plans

Attachment B: Forest Conservation Exemption Approval letter

Attachment C: Stormwater Concept Approval letter