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

MCPB

Item No. 5 Date: 09-17-2020

MacArthur Blvd Bikeway Improvements Project - Segment 1 (CIP Project No. 509337), Mandatory Referral No. MR2020024

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DESCRIPTION

Pedestrian and bicycle safety improvements along a 2.5-mile segment of MacArthur Blvd in Potomac between Old Angler's Inn and Eggert Drive. The improvements include a 10-foot-wide sidepath with a grass street buffer along the south side of MacArthur Blvd, shoulders on both sides of the road, intersection improvements at Clara Barton Parkway and additional pedestrian improvements (see Attachment 1).

The MacArthur Boulevard Bikeway Improvement Project Segment 1 is a part of the overall MacArthur Boulevard Bikeway Improvement



Project. The Facility Planning Phase I process for the larger project was completed in 2004, and the project was subsequently divided into three segments. Segment 2 between Eggert Drive and Oberlin Ave was completed in 2014, while Segment 3 between Oberlin Ave and the District of Columbia will start final design in FY 2021.

- Applicant: Montgomery County Department of Transportation
- Potomac Subregion Master Plan

Staff Recommendation: Approval to Transmit Comments

MANDATORY REFERRAL REVIEW

The MacArthur Blvd Bikeway Improvements Project - Segment 1 is subject to 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.

The project's design plans received for Mandatory Referral corresponds to the 35% plans.

RECOMMENDATIONS

Staff recommends **approval to transmit** the following comments to the Montgomery County Department of Transportation (MCDOT):

Transportation Comments

Planning staff provides the following recommendations:

- 1. Widen shoulders to a width of at least 4 feet along the whole length of the project and provide an adequate street buffer between the road and the sidepath. This could be achieved in at least two ways:
 - Alternative 1: Widen the shoulder to 4 feet wherever possible while maintaining the 5 feet street buffer. Where widening the shoulder to 4 feet would result in excessive impacts or would necessitate reducing the street buffer to less than 5 feet wide, provide a 42-inch brown box beam, wooden guard rail or a similar material that evokes a park-like aesthetic.
 - Alternative 2: Along the entire length of the project provide a 42-inch brown box beam, wooden guard rail or something similar in the street buffer, using a material that evokes a park-like aesthetic. Increase both shoulders to 4 feet wide and reduce the street buffer from 5 feet wide to 3 feet wide.
- 2. Provide a raised barrier that cannot be traversed by motor vehicles between the bikeable shoulders and the sidepath from Old Angler's Inn to Brickyard Rd to prevent motorists from parking in the bikeable shoulder, grass street buffer and / or sidepath.
- **3.** The MacArthur Blvd target speed should be 25 mph, as it will likely be classified as a Neighborhood Connector upon completion of the Complete Streets Design Guide and the subsequent update to the Master Plan of Highways and Transitways. Along this line, the design elements of the road should be adjusted to this lower speed, including high-visibility and raised crosswalks.
- **4.** Provide high-visibility raised crosswalks, with median refuge where feasible, for crossing MacArthur Blvd to improve connections with residential communities and/or between bus stop pairs at the following four intersections:
 - 4.1. Clara Barton Parkway
 - 4.2. Anchorage Dr
 - 4.3. Vendome Dr
 - 4.4. Eggert Dr
- 5. Where the sidepath crosses driveways, maintain the sidepath's elevation across the driveway. If necessary, the sidepath should be pulled away from the roadway at driveways.
- 6. Provide high-visibility crosswalks along the sidepath crossing Canal Bridge Ct and Witex Rd.
- **7.** Eliminate the proposed curbside parking for the 10700 MacArthur Blvd property and explore other alternatives different than curb parking. Consider either of the following alternatives:
 - Alternative 1: Provide the 10700 MacArthur Blvd property with its own new driveway, parallel and adjacent to the 10642 MacArthur Blvd driveway.
 - Alternative 2: Coordinate with residents from 10700 and 10642 MacArthur Blvd so that 10700 MacArthur Blvd property can use and share the existing driveway from 10642 MacArthur Blvd property.

- **8.** Convert the shoulder to a conventional bike lane at the intersections and delineate the crossing with dashed green paint.
- **9.** Investigate providing a safe crossing across MacArthur Blvd to connect Masters Drive with the Marsden Footbridge Trail as well as improving the goat trail connection between Masters Dr and MacArthur Blvd.

Historic Preservation Comments

- 10. Prior to proceeding to 70% design, hire an archaeological consultant to confirm whether graves are present in the area of the right-of-way that will be impacted. Investigations should be consistent with the Guidelines for Cemetery Investigations in Montgomery County (Appendix A of the Montgomery County Planning Board Guidelines for Burial Sites https://montgomeryplanning.org/wp-content/uploads/2019/06/PB-Guidelines-for-Burial-Sites_final.pdf).
- **11.** Historic Preservation Program staff will be permitted to review the draft and final archaeological reports and make further recommendations regarding additional work should significant features or potential burial sites be discovered.
- **12.** If unmarked burials are discovered, Historic Preservation staff will be permitted to consult with MCDOT regarding project impacts and the potential for public outreach, including consultation with the Maryland Historical Trust and descendants if any are identified.

Environmental Comments

Conditions of approval of the Forest Conservation Exemption are as follows:

- **13.** A revised Chapter 22A-9 Plan "Tree Save Plan" must be submitted to the Planning Department for review and approval at the time of sediment control permit.
- **14.** The revised Tree Save Plan must provide perimeter tree save measures which protect and mitigate damage to adjacent save trees and forest.
- **15.** The Tree Save Plan must provide reforestation (forest planting) equal to the rate of forest cleared.
- **16.** The standards of reforestation (forest planting) described in the Forest Conservation Law (Chapter 22A) subsections 22A-12(e), (g) and (h), must be met on the Tree Save Plan.
- **17.** The Planning Department requires onsite or nearby mitigation tree planting for the removal of specimen trees and this mitigation planning must be shown on the Tree Save Plan.

PROPOSAL

Project Location

The MacArthur Boulevard Bikeway Improvement Project Segment 1 is a part of the overall MacArthur Boulevard Bikeway Improvement Project. The Facility Planning Phase I process for the larger project was completed in 2004, and the project was subsequently divided into three segments. Segment 2 between Eggert Drive and Oberlin Ave was completed in 2014, while Segment 3 between Oberlin Ave and the District of Columbia will start final design in FY 2021.

The Montgomery County Department of Transportation (MCDOT) proposes a series of pedestrian and bicycle improvements to a 2.5 mile stretch along MacArthur Blvd in Potomac, between Old Angler's Inn and Eggert Dr (Figure 1).



Figure 1. Project Extents from Old Angler's Inn to Eggert Dr

Existing Conditions

MacArthur Blvd is currently a two-lane Arterial road with a posted limit of 30 mph along the project's extent.

The current bicycle and pedestrian infrastructure along MacArthur Blvd consist of an 8-foot-wide path 2,540 feet long (0.48 miles) from 600 feet west of Eggert Dr to Forrestal Rd with a street buffer between the street and the path ranging from 3 to 5 feet along the south side of the road (Figure 2). The sidepath becomes an 8-foot-wide shoulder from Forrestal Rd to Old Angler's Inn along the same south side of the road (Figure 3). In addition, most of MacArthur Blvd within the project boundary lacks a shoulder on the north side (Figure 4).

This roadway is heavily used by pedestrians and bicyclists, including large numbers of recreational bicyclists who tend to prefer to bicycle on the road.



Figure 2. 8-foot sidepath along MacArthur Blvd south side from 600 feet west of Eggert Dr to Forrestal Rd



Figure 3. Existing sidepath on MacArthur Blvd south side becomes a shoulder at Forrestal Dr



Figure 4. Most of MacArthur Blvd lacks a shoulder on the north side along the project's extent

There is currently only one high-visibility crosswalk across MacArthur Blvd. It is signalized and is located at Brickyard Rd (Figure 5).



Figure 5. Signalized high-visibility crossing at MacArthur Blvd and Brickyard Rd

Despite the presence of no parking signs in the area, the 8-foot-wide south shoulder is heavily used as unauthorized parking near the Old Angler's Inn and near the Marsden Footbridge Trail, which prevents bicyclists from using it as a bicycle facility (Figures 6 and 7).



Figure 6. Unauthorized parking over the 8-foot shoulder, near Old Angler's Inn



Figure 7. Unauthorized parking over the 8-foot shoulder, near the Marsden Footbridge Trail

A channelized right turn is present where MacArthur Blvd intersects Clara Barton Pkwy as shown in Figure 8.



Figure 8. Existing channelized right turn at MacArthur Blvd and Clara Barton Pkwy

Finally, there are currently five bus stop pairs along the project's extent. However, none of these bus stops have high-visibility crosswalks across MacArthur Blvd (Figures 9 and 10).



Figure 9. Pair of bus stops near Vendome Dr with no high-visibility crosswalk



Figure 10. Pair of bus stops near Anchorage Dr with no crosswalk

Project Improvements

The project's main improvements include:

1. A 10-foot wide sidepath along the south side of MacArthur Blvd with a 5-foot-wide grass street buffer wherever feasible, and a 3-foot-wide shoulder on both sides of MacArthur Boulevard (Figures 11 to 16).



Figure 11. Proposed cross section looking east between roughly Old Angler's Inn and just west of Canal Bridge Ct



Figure 12. Proposed cross section looking east between just west of Canal Bridge Ct and Mountain Gate Drive



Figure 13. Proposed cross section looking east between Bolling Lane and Anchorage Drive



Figure 14. Proposed cross section looking east between Forrestal Road and Vendome Drive



Figure 15. Proposed cross section looking east between Vendome Drive and 400 feet west of Eggert Dr



Figure 16. Proposed cross section looking east between 400 feet west of Eggert Dr And Eggert Drive

 Intersection improvements at Clara Barton Parkway, such as removing the channelized rightturn from MacArthur Boulevard to Clara Barton Parkway and realigning the crosswalk (Figures 17 and 18).



Figure 17. MacArthur Blvd and Clara Barton Pkwy intersection existing design



Figure 18. MacArthur Blvd and Clara Barton Pkwy intersection proposed design

- 3. Reconstructed bus stops along MacArthur Boulevard.
- 4. Pedestrian refuge island and crosswalk at Mountain Gate Dr, as shown in Figure 19.



Figure 19. High-visibility crosswalk with pedestrian refuge island at MacArthur Blvd and Mountain Gate Dr

5. A loading zone near Brickyard Road at the request of the National Park Service, for campers to unload their vehicles when accessing the nearby Marsden Campsite Facilities (Figure 20).



Figure 20. Loading zone near the Marsden Footbridge Trail

6. On the eastern limits of the project, a retaining wall has been proposed to minimize impacts to the existing U.S. Army Corps of Engineers maintenance facilities for the Washington Aqueducts and the Rock Run (see Figure 16).

ANALYSIS

As previously mentioned, the project proposes a 10-foot-wide sidepath along the south side of MacArthur Blvd for its whole extent. The project also includes a 5-foot-wide grass street buffer along most of the project, with the street buffer narrowing to 2 feet wide with a precast concrete curb or a concrete traffic barrier along two constrained sections. In addition, the project proposes 3-foot-wide shoulders on both sides of MacArthur Blvd.

The project also eliminates a channelized right turn and provides one new high-visibility crossing at an intersection connecting a nearby residential area, among other improvements.

Planning staff recommends the following changes to the project:

Transportation Recommendations

1. Widen shoulders to a width of at least 4 feet along the whole length of the project and provide an adequate street buffer between the road and the sidepath.

MacArthur Blvd is a popular bicycling route for recreational bicyclists, who generally prefer to ride on the road and the bikeable shoulders are intended to improve their safety and comfort. The 2018

<u>Bicycle Master Plan</u> (page 58) and the accompanying <u>Bicycle Facility Design Toolkit</u> (page 17) recommend a minimum width for the shoulders of at least 4 feet when the roadway is curbless. Along the same line, the Design Toolkit (page 10) states that sidepaths should have a 5-foot minimum street buffer from traffic to improve the safety and comfort for walking and bicycling. However, the project proposes shoulders which are just 3 feet wide on both sides of MacArthur Blvd and the street buffer is as narrow as 2 feet (Figures 13 and 18).

Planning staff believes these conditions should be improved in the next stage of design to be in line with best practices. Thus, Planning staff is proposing either of the following two alternatives to achieve the 4 feet wide shoulders and an optimal street buffer:

- Alternative 1: Widen the shoulder to 4 feet wherever possible while maintaining the 5 feet street buffer. Where widening the shoulder to 4 feet would result in excessive impacts or would necessitate reducing the street buffer to less than 5 feet wide, provide a 42-inch brown box beam, wooden guard rail or a similar material that evokes a park-like aesthetic.

This alternative widens the shoulders to 4 feet where feasible, while maintaining the width of the street buffer, by increasing the width of the cross section by 2 feet. Where additional space is not available to widen the shoulders, MCDOT can widen the shoulders to 4 feet by narrowing the street buffer to 3 feet and providing guardrail between the sidepath and the shoulders to maintain the comfort of the sidepath.

In addition, the 42-inch brown box beam guardrail should also be installed anywhere the street buffer is less than 5 feet, instead of the precast concrete cycle track barrier curb or the concrete traffic barrier shown in the plans (Figures 2 and 7 of this report).

- Alternative 2: Along the entire length of the project provide a 42-inch brown box beam, wooden guard rail or something similar in the street buffer, using a material that evokes a park-like aesthetic. Increase both shoulders to 4 feet wide and reduce the street buffer from 5 feet wide to 3 feet wide.

This alternative would consistently widen the bikeable shoulders to 4 feet on both sides of the road for the whole extent of the project <u>without increasing the width of the cross</u> <u>section</u>. It achieves this by narrowing the street buffer from 5 feet to 3 feet and installing a guardrail in the street buffer along the whole extent of the project to protect pedestrians and bicyclists from vehicle traffic.

While this alternative is more expensive, the guardrail will also eliminate the possibility of parking encroachment into the street buffer and the sidepath and reduce the environmental impacts of a wider cross-section.

Figure 21 provides a suggested cross-section for this Alternative 2.



Figure 21. MacArthur Blvd Alternative 2 cross section

Figure 22 provide examples of box beam guardrails referred to in Alternatives 1 and 2.



Figure 22. Box beam guardrail examples for being used on Alternatives 1 and 2

2. Provide a raised barrier that cannot be traversed by motor vehicles between the bikeable shoulders and the sidepath from Old Angler's Inn to Brickyard Rd to prevent motorists from parking in the bikeable shoulder, grass street buffer and / or sidepath.

As discussed in the Parking Concerns and Potential Solutions section of this report, the proposed sidepath and bikeable shoulders will displace unauthorized parking that occurs on the south side of MacArthur Blvd between Old Angler's Inn and Brickyard Rd during peak periods of visitation to the Billy Goat Trail and the C&O Towpath. While the proposed 6-inch high curb (similar to the one shown in Figure 23) and recommendations for improved signage to offsite parking areas may discourage some people from parking in the bikeable shoulders, grass street buffer and sidepath, some visitors may continue to park in this area by driving over the proposed curb barrier.

While enforcement is welcome, it is impossible to continuously enforce the area, so a taller physical barrier is needed that continues all the way to Brickyard Rd, such as shown in Figure 22.



Figure 23: Project's proposed 6-inch curb separation

3. The MacArthur Blvd target speed should be 25 mph, as it will likely be classified as a Neighborhood Connector upon completion of the Complete Streets Design Guide and the subsequent update to the Master Plan of Highways and Transitways. Along this line, the design elements of the road should be adjusted to this lower speed, including high-visibility and raised crosswalks.

MacArthur Blvd is likely to be classified as a Neighborhood Connector upon completion of the Complete Streets Design Guide. Neighborhood Connectors are recommended to have a target speed of 25 mph. While the posted speed limit is 30 mph, the existing average speeds range from 37 – 39 mph, so providing speed management treatments will be vital to getting traffic to slow down to 25 mph.

According to the Federal Highway Administration's (FHWA) "Guide for Improving Pedestrian Safety at Uncontrolled Crossing Locations" (Figure 24), on two-lane roadways with traffic volumes below 9,000 vehicles per day and posted speed limits of 30 mph or slower, high-visibility crosswalks, raised crosswalks and pedestrian refuges are candidate treatments at uncontrolled crossings.¹

¹ Average daily traffic volumes (AADT) are about 7,000 vehicles north of Clara Barton Parkway and about 2,300 vehicles south of Clara Barton Parkway, per a study by MCDOT.

	Posted Speed Limit and AADT																									
	Vehicle AADT <9,000							Vehicle AADT 9,000-15,000							Vehicle AADT >15,000											
Roadway Configuration 2 lanes (1 lane in each direction)		≤30 mph			35 mph			≥40 mph		≤30 mph		35 mph		≥40 mph		ph	≤30 mph			35 mph			≥40 mph			
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3 lanes with raised median (1 lane in each direction)	4	2 5	3	07	5	0 9	0	5	0	047	5	3	0	5	00	0	5	0	0 4 7	5	09	0	5	0	0	50
3 lanes w/o raised median (1 lane in each direction with a two-way left-turn lane)	0 4 7	2 5	3 6 9	0	5	000	0	5	0 6 0	0 4 7	5	3 6 9	0	5	000	0	5	0 6 0	0 4 7	5	0 6 9	0	5	0 6 0	0 5	6
4+ lanes with raised median (2 or more lanes in each direction)	0	5 8	0 9	0	5 8	0	0	5 8	0	0	5 8	0 9	0	5 8	0	0	5 8	0	0	5 8	0	0	5 8	0	0	5 8 0
4+ lanes w/o raised median (2 or more lanes in each direction)	0	5 8	0 6 9	07	5 8	000	0	5 8	000	07	5 8	009	0	5 8	000	0	5 8	000	0	5 8	000	0	5 8	000	0	50
 Given the set of conditions in a Signifies that the counterm treatment at a marked uncor Signifies that the counterm considered, but not mandai engineering judgment at a crossing location. Signifies that crosswalk visibi always occur in conjunction countermeasures." The absence of a number signifis a enerally not an appropriate 	cell, easure ontrol easure ed or mark lity er with fies the treat	re is led re s reed ahai oth	s a c cro hou quir unc ncer ic the nt, b	canc ssin Id a ed, I neni lenti	tide lwo bas olle ts s ifier	ate ocat iys t eed i ed houl d	ion. De upor Id	re		1 23 456789	Hin cro an Ra Ad an In- Cu Pe Ro Ro Pe	gh-v ossv d cr isec van d yi Stre des ctar ad I des	isib valk ossi d crc ce Y eld vet P exter triar nguli Diet triar	ility app ield (sto edensio n rel ar R n Hy	cro prod war valk (He p) I estri apid tuge apid	ssw ich, ning re Ta ine an (d-Fla J-Fla I Be	alk ode g sig cross and ashi aco	ma qua ns top ssin ng l	rkin hte i Her g si Bea PHB	gs, nig) re F gn con	pari httir or)	king ne li Pede RFB)	res ght estr	tricting	tions leve s sig	n

Table 1. Application of pedestrian crash countermeasures by roadway feature.



- 4. Provide high-visibility raised crosswalks, with median refuge where feasible, for crossing MacArthur Blvd to improve connections with residential communities and/or between bus stop pairs at the following four intersections:
 - 4.1. Clara Barton Parkway (connecting bus stop pair)
 - 4.2. Anchorage Dr (connecting to residential area and connecting bus stop pair)
 - 4.3. Vendome Dr (connecting to residential area and connecting bus stop pair)
 - 4.4. Eggert Dr (connecting bus stop pair)

Planning staff believes safer crossings are needed at these four locations for accessing residential areas and bus stops.

High-visibility crosswalks have been proven to be an effective way to reduce crashes between pedestrians and motor vehicles at uncontrolled intersections. In addition, as mentioned in recommendation #3, FHWA includes raised crossings as candidate treatments for roads with MacArthur Blvd characteristics.

The project plans show that some of the existing bus stops will be replaced or relocated. Planning staff recommends that high-visibility crosswalks be implemented at the new location of the bus stops across MacArthur Blvd, to provide safer connections to the sidepath.

5. Where the sidepath crosses driveways, maintain the sidepath's elevation across the driveway. If necessary, the sidepath should be pulled away from the roadway at driveways.

The sidepath crosses a total of seven driveways that are being reconstructed as part of the project. Following the 2018 Bicycle Master Plan Design Toolkit, all these driveways should be raised to the sidepath level, so that the pathway for pedestrians and bicyclists remains even.

6. Provide high-visibility crosswalks along the sidepath across Canal Bridge Ct and Witex Rd.

High-visibility crosswalks should be provided at these crossings **along the sidepath** in order to warn drivers approaching MacArthur Blvd of the presence of a sidepath with pedestrian and cyclists crossing.

7. Eliminate the proposed curbside parking for the 10700 MacArthur Blvd property and explore other alternatives different than curb parking.

As shown in Figure 25, the project proposes to provide curbside parking for the 10700 MacArthur Blvd property. This is the only property for which the project is providing such accommodation. Typically, residential on-street parking is only provided on arterial streets where driveways cannot be physically accommodated. However, providing a driveway for 10700 MacArthur Blvd is feasible and physically possible here. In addition, providing on-street parking is not ideal as it may cause motor vehicles to block the shoulder and lead to "dooring" on the sidepath. Thus, staff recommends investigating alternatives to avoid potential conflicts between parked cars and bicyclists riding on the shoulder.



Figure 25. Curbside parking provided for 10700 MacArthur Blvd shown in red box

While the plans appear to show that the project is reconstructing a driveway for the 10700 MacArthur Blvd property, in actuality, the driveway belongs to the 10642 MacArthur Blvd property, as show in Figure 26 (the black thick lines are the property lines).



Figure 26. Correct property lines for 10700 and 10642 MacArthur Blvd

Taking this into consideration, Planning staff recommends one of the following alternatives for consistency purposes and to avoid potential conflicts between cyclists and parked cars that building the curb parking for 10700 MacArthur Blvd might cause:

- Alternative 1: Provide the 10700 MacArthur Blvd property with its own new driveway, parallel and adjacent to the 10642 MacArthur Blvd driveway.
- Alternative 2: Coordinate with residents from 10700 and 10642 MacArthur Blvd so that 10700 MacArthur Blvd property can use and share the existing driveway from 10642 MacArthur Blvd property.
- 8. Convert the shoulder to a conventional bike lane at the intersections and delineate the crossing with dashed green paint.

Approaching the Clara Barton Parkway intersection in the eastbound direction, the 3-foot south shoulder transitions to a 3-foot wide conventional bike lane between the through lane and the right turn lane (Figure 27). This is a substandard dimension for a conventional bike lane and must be widened to at least 5 feet.



Figure 27. MacArthur Blvd and Clara Barton Pkwy intersection showing substandard 3-foot bike lane in red box

According to the 2018 Bike Plan and its Design Toolkit, the width of the through bike lane at this location should ideally be 6 feet with a minimum of 5 feet wide. Thus, Planning staff recommends that the through bike lane at this location be widened to at least 5 feet wide.

The same treatments should be considered anywhere where the shoulders cross intersections.

9. Investigate providing a safe crossing across MacArthur Blvd to connect Masters Drive with the Marsden Footbridge Trail as well as improving the goat trail connection between Masters Dr and MacArthur Blvd.

Figure 28 summarizes the nine transportation related recommendations (in red) as well as the projects' proposed improvements (orange) and the existing pedestrian infrastructure (in blue).



Figure 28. Planning staff's transportation-related recommendations, the project's proposed improvements, and existing pedestrian infrastructure

Historic Preservation

Background

The proposed sidepath is adjacent to a former African American cemetery (Mt. Glory Baptist Church Cemetery) just east of the intersection of MacArthur Blvd and Clara Barton Parkway on the south side of MacArthur Blvd (sheets 21-22). The church and cemetery were established sometime after the church purchased one half acre in April 1920. The graves were moved in 1963 to Fisherman's Cemetery (also called Lincoln Park Cemetery) in Rockville prior to construction of Clara Barton Parkway. There is no way to confirm how complete the exhumations were. An overlay of a 1963 plan of the church and cemetery site (Figure 29) suggests the cemetery was probably south of the right-of-way for MacArthur Blvd (property line in red below).



Figure 29. Circa 1963 plan of Mt Glory Baptist Church and Cemetery

There was also a former cemetery on the north side of MacArthur Blvd in the vicinity of Vendome Dr. (Beechmont Cemetery, sheets 29, 30, 31). The limit of disturbance (LOD) here does not extend beyond the existing roadway on the north side, so impacts to the former cemetery are not expected. If the LOD changes here to include the north side of MacArthur Blvd, then archaeological investigations similar to those to be completed adjacent to the Mt Glory Baptist Church Cemetery site are recommended.

There are two drainage features that run under MacArthur Blvd (on sheets 18 and 20) that were recorded as archaeological sites with the Maryland Historical Trust as possibly dating to the 19th century or early 20th century. MCDOT is aware of these features, and plans for the bikeway will not affect them.

The project is near the C&O Canal Historic District, but not inside, and doesn't appear to affect it or any other historic sites.

Recommendations

10. Prior to proceeding to 70% design, hire an archaeological consultant to confirm whether graves are present in the area of the right-of-way that will be impacted. Investigations should be consistent with the Guidelines for Cemetery Investigations in Montgomery County (Appendix A of the Montgomery County Planning Board Guidelines for Burial Sites https://montgomeryplanning.org/wp-content/uploads/2019/06/PB-Guidelines-for-Burial-Sites_final.pdf).

- 11. Historic Preservation Program staff will be permitted to review the draft and final archaeological reports and make further recommendations regarding additional work should significant features or potential burial sites be discovered.
- 12. If unmarked burials are discovered, Historic Preservation staff will be permitted to consult with MCDOT regarding project impacts and the potential for public outreach, including consultation with the Maryland Historical Trust and descendants if any are identified.

Environmental Guidelines

Environmental Analysis

This project is located primarily within the MacArthur Boulevard right-of-way and within the Rock Run and Potomac Direct watersheds. The existing road crosses several small tributaries that flow directly into the Potomac River. This section of the road also crosses the mainstem of Rock Run. The applicant has minimized disturbance to sensitive areas such as extreme steep slopes associated with the Potomac River Gorge, wetlands and stream buffers.

Stormwater Management

A Stormwater Management concept approval was approved by the Department of Permitting Services on December 10, 2019.

Forest Conservation

The Application meets the requirements of Chapter 22A of the Montgomery County Forest Conservation Law. The Application is exempt from submission of a forest conservation plan. A Forest Conservation Exemption (#42019039E) was granted with conditions under the provisions of Section 22A-5(e) as "a State or County highway construction activity..." M-NCPPC staff confirmed the Exemption in a letter dated February 3, 2020 (Attachment 2).

While the project is exempt, the applicant is still required under section 22A-9 of the County code 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) Mitigate for loss of specimen or champion trees. Mitigation amounts are based on the size and character of the tree.

This road improvement proposes to clear 1.3 acres of forest. Mitigation for the loss of this forest will take place at an off-site Forest Mitigation Bank. Mitigation for the loss of specimen trees will be shown on an amended Tree-Save Plan as required. The Plan must be amended to reflect the most recent project design and limits of disturbance at the time of the sediment control permit. Field location and protection of trees will take place at the pre-construction meeting. Additional measures for the protection and preservation of individual trees may occur at that time.

Conditions of approval of the Forest Conservation Exemption are as follows:

- **13.** A revised Chapter **22A-9** Plan "Tree Save Plan" must be submitted to the Planning Department for review and approval at the time of sediment control permit.
- 14. The revised Tree Save Plan must provide perimeter tree save measures which protect and mitigate damage to adjacent save trees and forest.
- 15. The Tree Save Plan must provide reforestation (forest planting) equal to the rate of forest cleared.
- 16. The standards of reforestation (forest planting) described in the Forest Conservation Law (Chapter 22A) subsections 22A-12(e), (g) and (h), must be met on the Tree Save Plan.
- 17. The Planning Department requires onsite or nearby mitigation tree planting for the removal of specimen trees and this mitigation planning must be shown on the Tree Save Plan.

Parks

The proposed improvements for Segment 1 will not impact any M-NCPPC parkland.

Parking Concerns and Potential Solutions

Within the project limits of the MacArthur Blvd Bikeway Improvements Project – Segment 1, the Great Falls Park and the Old Angler's Inn are popular destinations that attract numerous visitors to this area, and parking demand often exceeds supply. There are two existing parking lots within the immediate area: the Angler's Recreation Area parking lot and the Old Angler's Inn parking lot. The Angler's Recreation Area parking lot typically serves the visitors to the Great Falls Park and is managed by the National Park Service, while the Old Angler's Inn parking lot is a private lot only available to the restaurant's patrons.

Throughout the preliminary design phase, parking concerns have been brought up by residents, as well as bicyclists and trail users who frequent this area, mainly due to the overwhelming parking demands on weekends. While MacArthur Blvd is signed as no-parking throughout, vehicles are often parked on the south shoulder of the roadway between Old Angler's Inn and Brickyard Rd. The proposed sidepath along the south side of MacArthur Blvd will include concrete barriers at curb height to <u>discourage</u> vehicles from parking on the shoulder, street buffer and sidepath. Recommendation #2 in this staff report is to raise the height of the barrier to <u>prevent</u> all vehicles from parking in the shoulder, street buffer and sidepath. While this may solve the concerns of vehicles parking on the sidepath, parking demands will continue to require coordination with various stakeholders to mitigate and resolve.

MCDOT has been coordinating with the National Park Service (NPS) throughout the preliminary design phase. There is a parking lot redesign planned for the Angler's Recreation Area parking lot to better accommodate visitor parking by the NPS. However, there is no funding schedule for final design and construction in the federal budget. Through coordination with the National Park Service, some interim solutions were identified – such as better wayfinding signage to direct patrons to nearby parking lots with greater capacity (namely, the Great Falls Tavern Parking Lot three miles to the north of the Angler's Recreation Area and the Carderock Recreation Area Parking Lot two miles to the south) at the major access points of the Great Falls Park as well as on their website. In addition, a loading area at the Marsden Bridge near Brickyard Road will be provided and signed appropriately.

Some residents have also suggested providing additional wayfinding signage for visitors who might be utilizing Stable Lane to park and walk to the closest access point to the towpath. MCDOT will explore this option further during the final design phase. Nevertheless, further coordination with the county's Police Department, which enforces parking restrictions, will also be needed in order to successfully implement the interim solutions.

An alternative strategy that could alleviate parking demands is to encourage visitors to utilize other transportation modes to travel to this area, such as taking transit and bicycling. The purpose of this project is to improve safety for pedestrians and cyclists, which will create more viable travel options for visitors. There could be opportunities to look at transit services and markets to address travel demand to the area, and these would be explored further during the final design phase.

MASTER PLAN CONFORMANCE

The MacArthur Blvd Bikeway Improvements Project – Segment 1 is subject to three master plans: the 2002 Potomac Subregion Master Plan, the 2018 Bicycle Master Plan and the 2018 Master Plan of Highways and Transitways.

The 2002 Potomac Subregion Master Plan recommends a Bikeway Class 1 (a.k.a. sidepath) along MacArthur Blvd from Falls Rd to I-495.

The 2018 Bicycle Master Plan (page 300) includes the following recommendation for MacArthur Blvd:

BIKEWAY	FROM	то	FACILITY TYPE	BIKEWAY TYPE
MacArthur Blvd	Old Angler's Inn	I-495	Separated Bikeway and Bikeable Shoulders	Sidepath and Bikeable Shoulders

The 2018 Master Plan of Highways and Transitways classifies MacArthur Blvd from the Capital Beltway to Falls Rd as a two-lane Arterial with a master plan right-of-way of 80 feet. The project complies with both these conditions.

The project is in conformance with the three plans it is subject to: the 2002 Potomac Subregion Master Plan, the 2018 Bicycle Master Plan and the 2018 Master Plan of Highways and Transitways.

PUBLIC OUTREACH

MCDOT held a public meeting on June 7, 2018 at Carderock Springs Elementary School. Prior to the meeting, MCDOT used a newsletter to inform the public about the project, invite them to the public meeting, and provide them with a prepaid postage comment form. The newsletter and meeting materials are available at https://www.montgomerycountymd.gov/dot-dte/projects/mcarthurseg1/index.html

CONCLUSION

Based on information provided by the Applicant, **Staff recommends approval of the Mandatory Referral with comments listed on pages 2 and 3 of this report to be transmitted to the Montgomery County Department of Transportation (MCDOT).**

ATTACHMENTS

Attachment 1. MacArthur Boulevard Bicycle and Pedestrian Improvements Plan View

Attachment 2. Forest Conservation Exemption dated February 3rd, 2020





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

February 3, 2020

MCDOT – Division of Transportation Engineering c/o Angel Cheng, P.E. 100 Edison Park Dr. Fourth Floor Gaithersburg, MD 20878

Re: MacArthur Boulevard Bikeway Improvements (Old Angler's to Eggert Drive) 35% design Forest Conservation Exemption Request and Simplified NRI/FSD No. 42019039E Conditionally Confirmed and Approved on 2/3/2020

Dear Angel Cheng:

On January 30, 2020, Development Applications and Regulatory Coordination staff of the Montgomery County Planning Department received a revised Simplified Natural Resource Inventory / Forest Stand Delineation "Simplified NRI/FSD" and Tree Save Plan (Chapter 22A-9 Plan) for Bikeway Improvements on MacArthur Boulevard. The forest conservation exemption requested is for a county road construction activity.

The review of the forest conservation exemption request is complete. The project is part of the approved Capital Improvement Program (CIP). The revised Simplified NRI/FSD submitted January 30, 2020, depicts a 35% design and is part of a Mandatory Referral review. This Simplified NRI/FSD and Tree Save Plan are not for construction use. The submitted Tree Save Plan notes the current 35% design impact to forest and specimen trees, notes how forest mitigation will be done offsite at a private forest conservation bank and notes how specimen tree mitigation will be provided onsite. The Tree Save Plan shows the proposed clearing of approximately 1.30 acres of forest including portions of forest within stream buffer. Specimen trees are shown to be removed. Each sheet of this Simplified NRI/FSD notes how a revised Tree Save Plan (Chapter 22A-9 plan) will be submitted for review and approval at the time of sediment control permit.

Forest Conservation Exemption Request No. 42019039E for the MacArthur Boulevard Bikeway Improvements between Old Angler's Inn and Eggert Drive is confirmed with conditions. The revised Simplified NRI/FSD and Tree Save Plan submitted on January 30, 2020 for the project is approved with conditions.

The conditions of approval are (1.) A revised Chapter 22A-9 Plan "Tree Save Plan" must be submitted to the Planning Department for review and approval at the time of sediment control permit. (2) The revised Tree Save Plan must provide perimeter tree save measures which protect and mitigate damage to adjacent save trees and forest. (3) The Tree Save Plan must provide reforestation (forest planting) equal to the rate of forest cleared. (4). The standards of reforestation (forest planting) described in the Forest Conservation Law (Chapter 22A) subsections 22A-12(e). (g) and (h), must be met on the Tree Save Plan. and (5) The Planning Department requires onsite or nearby mitigation tree planting for the removal of specimen trees and this mitigation planting must be shown on the Tree Save Plan.

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

If there are subsequent modifications to the approved Simplified NRI/FSD and Tree Save Plan, a separate amendment may be required for Planning Department review and approval prior to those activities occurring.

Sincerely, ttophen

Stephen Peck Senior Planner and Inspector Development Applications and Regulatory Coordination M-NCPPC - Montgomery County Planning Department

CC: Jennifer Powers, The Wilson T. Ballard Company David Anspacher, Montgomery County Planning Department Stephen Aldrich, Montgomery County Planning Department