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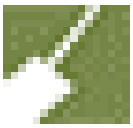
# WB&A Trail Extension Feasibility Study



June 2018

# **WB&A Trail Extension Feasibility Study**

Final Report



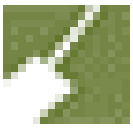
# WB&A Trail Extension Feasibility Study

## *Final Report*

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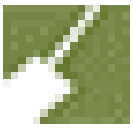
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## 1.0 INTRODUCTION

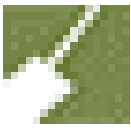
The Maryland-National Capital Park and Planning Commission (M-NCPPC), Prince George's County Planning Department received a grant from the Metropolitan Washington Council of Governments (MWCOG) Transportation / Land Use Connections Program to complete a feasibility analysis to examine the potential for extending the Washington, Baltimore, and Annapolis (WB&A) Trail along MD 704 from MD 450 to the Washington, District of Columbia (DC) boundary. Implementing this would result in connections with the DC trail network, specifically with the Marvin Gaye Trail in DC that runs along Watts Branch.

The extension of the WB&A Trail from the existing terminus is recommended in M-NCPPC's Countywide Master Plan of Transportation approved in November 2009 and in M-NCCPC's Subregion 4 Master Plan approved in June 2010. Both documents serve as strategic plans that serve as a guide for future development.

## 2.0 STUDY OVERVIEW

The WB&A Extension Feasibility Study examines the potential for extending the WB&A Trail along the north side of MD 704 (Martin Luther King Jr. Highway) from the existing terminus. The existing WB&A Trail is a paved shared use trail that extends from MD 450 Annapolis Road in Prince George's County to the Patuxent River at the Anne Arundel County line. See Figure 1 for a map of the study area. The purpose of this study is to analyze the feasibility of extending the existing trail from the current terminus in Lanham to the DC boundary in Seat Pleasant. Currently the WB&A trail does not connect into DC; extending the trail would provide trail connectivity for a large portion of central Prince George's County. Extending the WB&A trail has the potential to connect dozens of towns and in turn increasing pedestrian and bicycle trips along MD 704.

This report describes the concepts that were analyzed, identifies potential design constraints, and funding sources. A map was prepared that graphically summarizes the results of the analysis and illustrative sketches were prepared of proposed trail sections.



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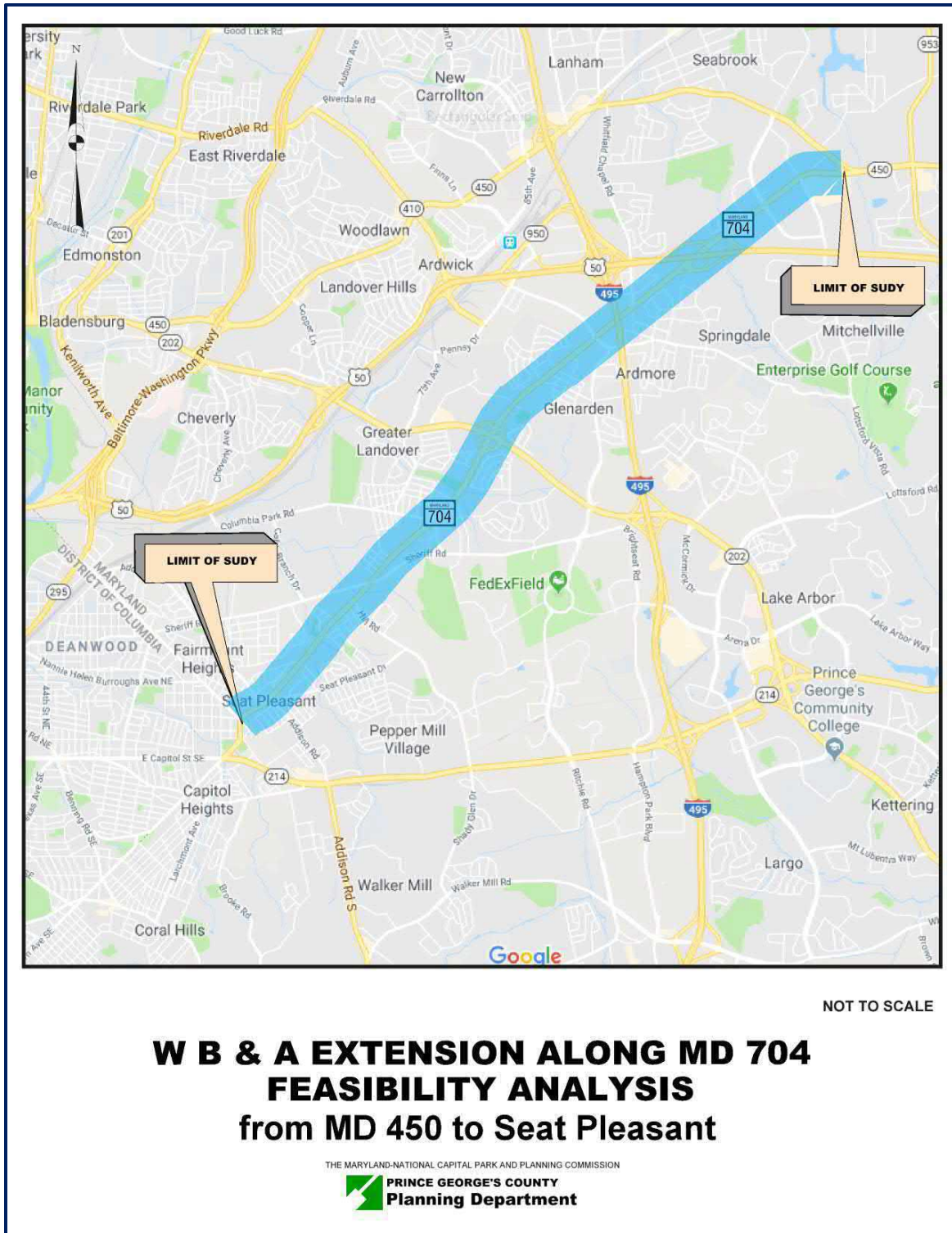
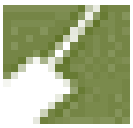


Figure 1 – Study Area





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## 2.1. Background

The existing WB&A Trail is a paved shared-use trail that runs from MD 450 in Prince George's County to the Patuxent River at the border of Prince George's and Anne Arundel Counties. Efforts are underway to extend the WB&A Trail north-eastward over the Patuxent River and toward the Thurgood Marshall Baltimore-Washington International Airport.

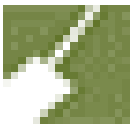
The Maryland-National Capital Park and Planning Commission, Prince George's County received a grant from the MWCOG Transportation / Land Use Connections Program to complete a feasibility analysis to investigate the extension of the Washington, Baltimore and Annapolis (WB&A) Trail along the northern side of MD 704 within the right of way, resulting in a complete cross county trail connection from Anne Arundel County to Washington D.C.

The 2009 Approved County-wide Master Plan of Transportation (MPOT) and the 2010 Approved Subregion 4 Master Plan each recommend this project. MD 704 is designated as the #1 bicycle corridor priority and the #2 System Preservation / Safety and Neighborhood Conservation priority on the 2017 Prince George's County Transportation Priority Letter to the Maryland Department of Transportation State Highway Administration (MDOT SHA).

## 3.0 EXISTING CONDITIONS

Data was collected for this feasibility study through methods accessible for desktop review including Geographic Information System (GIS) data and aerial imagery. Sources of information included the Prince George's County databases, Federal Emergency Management Agency (FEMA) 100-year floodplains, and the National Wetland Inventory (NWI). Desktop site investigations were conducted using Google Earth and Google Maps, no detailed fieldwork was completed for this feasibility study.

MD 704 is classified by the Maryland Department of Transportation's State Highway Administration (MDOT SHA) as a minor urban arterial that travels west to east from Eastern Avenue, in the District of Columbia, to MD 450 (Annapolis Road) in Prince George's County, Maryland. MD 704 becomes Southern Avenue SE after crossing the boundary of the District of Columbia. Within the study area, MD 704 varies from four to six striped lanes with a raised concrete median dividing opposing traffic. This roadway connects the communities of Seat Pleasant, Landover, Glenarden, and Lanham in Prince George's County, Maryland.



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MD 704 heading east from the Washington D.C. boundary, is a 4-lane divided highway with a posted speed limit of 40 miles per hour. The westbound direction is striped for an on road five-foot bike lane adjacent to the travel lanes that continues to Southland Drive. There is a sidewalk and curb along both sides of the roadway. This area is characterized by commercial properties along both sides and overhead utilities along the westbound roadway.

Beginning at Southland Drive the bike lane is separated by a striped buffer that continues to the Greenleaf Road intersection (see Figure 2). The surrounding area transitions to residential just east of Sheriff Road with commercial properties located at the major intersections. The marked bicycle lane ends at Greenleaf Drive and an additional travel lane begins, creating a 6-lane divided roadway with sidewalks on both sides.

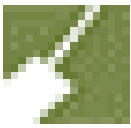


*Figure 2 - MD 704 westbound at Greenleaf Boulevard (looking east)*

The sidewalk ends at Goodland Drive as you approach the MD 202 (Landover Road) interchange where an additional lane in each direction is added and then dropped as the interchange ramps enter and exit MD 202. Under the MD 202 overpass, the roadway consists of six lanes and shoulders only.

The 6-lane divided roadway section continues from Hubbard Road to Ardwick Ardmore Road (see Figure 3). This area is characterized by residential communities on both sides with commercial properties located at the intersections. There is sidewalk on both sides of MD 704 within this section.





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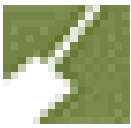


*Figure 3 – MD 704 westbound past Ardwick-Ardmore Road (looking east)*

As you approach the MD 704 Bridge over the Capital Beltway (I-95 / I-495) the sidewalks end and the roadway transitions back to a 4-lane divided with no sidewalks under the US 50 (John Hanson Highway) bridge (see Figure 4).



*Figure 4 - MD 704 westbound past US 50 Overpass (looking east)*

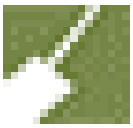


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The sidewalk is reintroduced at Parliament Place, where additional travel / auxiliary lanes are added transitioning back to a 6-lane divided roadway (see Figure 5). From this location to the study limit at MD 450 (Annapolis Road) the area is mainly commercial. The section between Lottford Vista Road and MD 450 (Annapolis Road) has marked bicycle lanes in both directions.



*Figure 5 – MD 704 westbound, Forbes Boulevard (looking east)*



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## 4.0 FEASIBILITY ANALYSIS

This study investigated the feasibility of an off-road, two-way, shared use path along the north side of MD 704 for the limits of the study, following the existing roadside curb.

### 4.1. Design Criteria

The following guidance documents were used in developing the design criteria for this feasibility study:

- AASHTO Guide for the Development of Bicycle Facilities, fourth edition 2012
- MDOT SHA Bicycle Policy and Design Guidelines, 2015

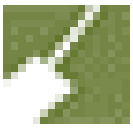
AASHTO's manual and SHA's Bicycle Policy and Design Guidelines each specify the following criteria. The minimum paved width for a two-directional shared path is 10 feet with 2-foot shoulders on both sides for clearance from lateral obstructions. In low volume areas, a path width of 8 feet is acceptable. The distance between the shared path and roadway curb should be, at minimum, 5 feet wide. A 10-foot buffer between the existing curb and the shared use path is being considered for the purposes of this feasibility study.

It should be noted that the MDOT SHA Bicycle Guidance states that "shared use paths are open to use by pedestrians and other authorized non-motorized users. The presence of a shared use path shall not replace the requirement to provide bike lanes. Paths provide a complement to the roadway transportation system and are not a substitute for roadway access."

### 4.2. Methodology

The approach to the analysis contained in this study was to investigate the feasibility of locating a shared use path in the study area along the north side (westbound direction) of MD 704. A graphical line was established using the aerial imagery along the westbound curb line for the length of the study area. From that a 10-foot parallel line was set to account for a buffer area between the roadway and the trail, then a second 14-foot parallel line was set to account for the width of the trail and each of the 2 foot graded shoulders. This line work was overlain with existing property line GIS data, aerial imagery and a visual inspection using Google Earth street view. The adjacent properties within the study area are primarily residential and commercial.





The entire corridor was reviewed to identify ease of implementation, while taking into consideration available right of way, time, and cost. Areas were identified where the 24-foot offset line (10-foot buffer, 10-foot trail, and 2-foot shoulders), representing the trail footprint, fell within the existing right



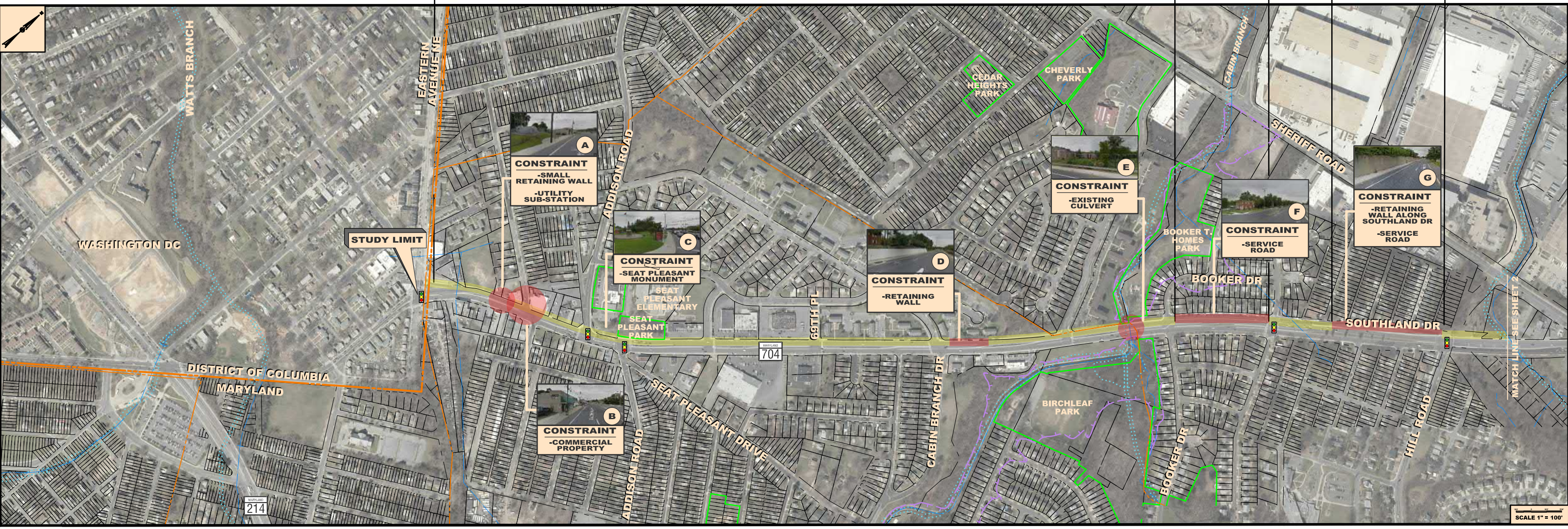
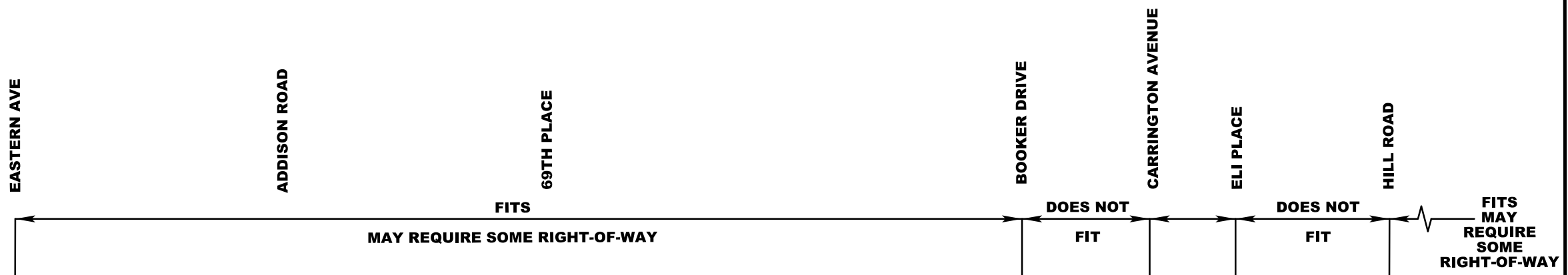
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of way. Four categories were established, described in the table below, to indicate levels of difficulty for implementing the shared use path along MD 704. The areas on the Concept Evaluation Mapping that are a red bandwidth or circle are notated as “Most Challenging” (see Figures 6 - 9). These areas are too constrained for the trail to fit, mostly at overpasses or underpasses or where right of way is limited. Areas requiring some type of reconfiguration to the existing roadway condition were identified and shown by an orange bandwidth and notated as “Moderately Challenging”. Then, areas where small amounts of right-of-way would be required were identified and shown on the mapping by a yellow bandwidth and notated as “Modestly Challenging”. Lastly, areas where the trail fit in the right of way are represented by a green bandwidth on the above referenced mapping and notated as “Least Challenging”.

### Ease of Implementation

Color	Implementation Categories	Description
	Most Challenging	Existing right of way is constrained, and the presence of existing structures makes it difficult to construct the trail at these locations; more detailed data and analysis is needed
	Moderately Challenging	Reconfiguration of the existing roadway is needed to provide the necessary width for the trail, potential road diet to accommodate off road trail
	Modestly Challenging	The trail fits mostly within the existing right of way with small amounts of additional right of way needed to accommodate the full width of the trail
	Least Challenging	The trail fits within the existing right of way and appears to have minimal impacts resulting in a less complicated design and construction






**EASE OF IMPLEMENTATION**


- MOST CHALLENGING
- MODERATELY CHALLENGING
- MODESTLY CHALLENGING
- LEAST CHALLENGING

**WB&A TRAIL EXTENSION  
FEASIBILITY ANALYSIS  
CONCEPT EVALUATION MAP**

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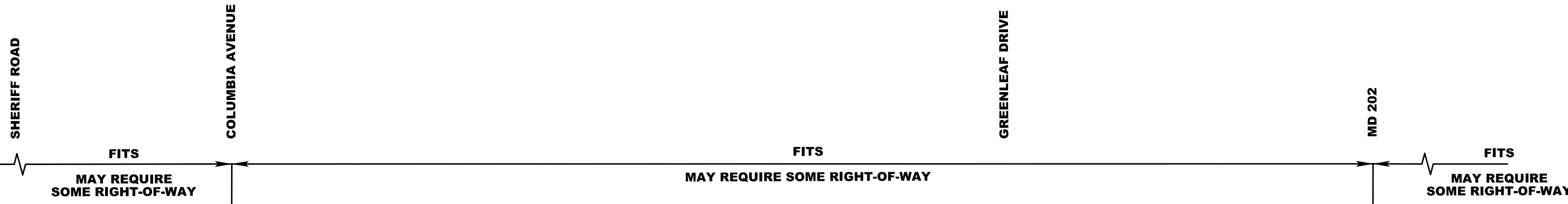
**WALLACE  
MONTGOMERY**



**PRINCE GEORGE'S COUNTY  
Planning Department**

BACKGROUND AERIAL SOURCE  
MD SHA  
2016  
MAY 2018  
FIGURE 6





**EASE OF IMPLEMENTATION**

- MOST CHALLENGING
- MODERATELY CHALLENGING
- MODESTLY CHALLENGING
- LEAST CHALLENGING

**WB&A TRAIL EXTENSION  
FEASIBILITY ANALYSIS  
CONCEPT EVALUATION MAP**

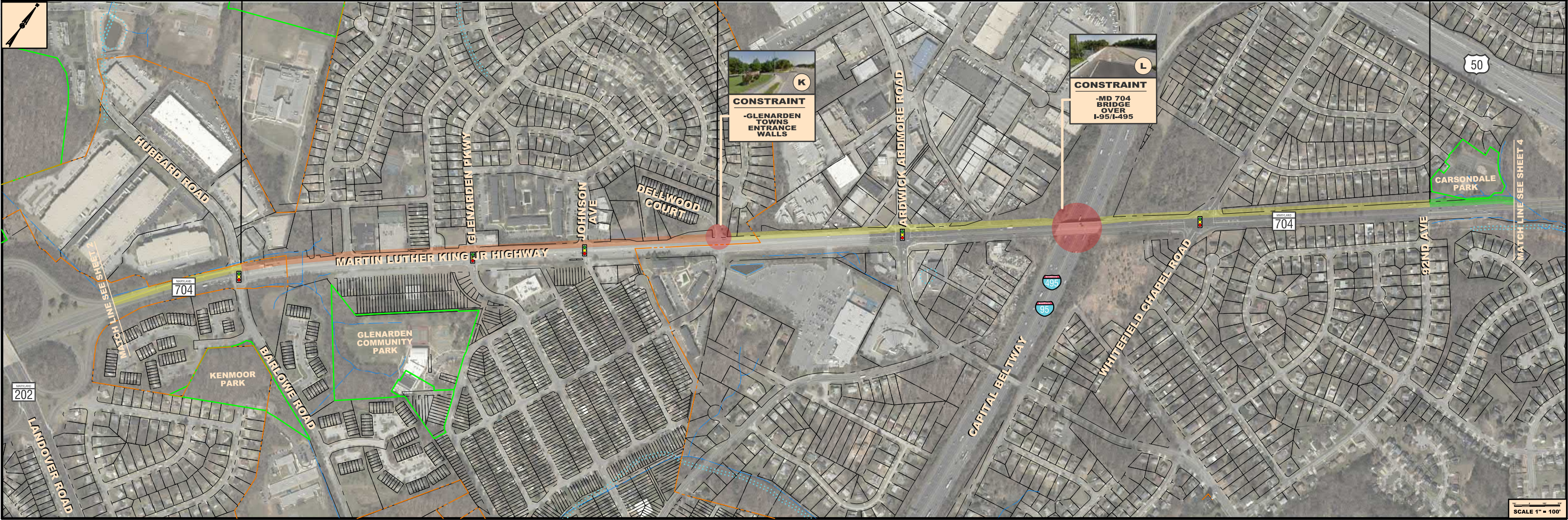
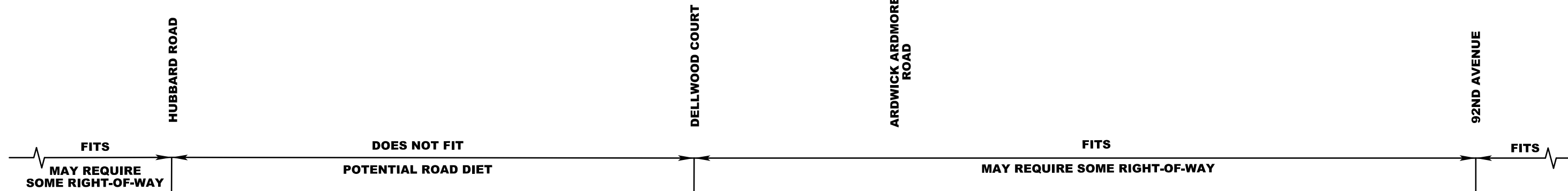
THE MARYLAND-NATIONAL CAPITAL PARK AND PLANNING COMMISSION

**PRINCE GEORGE'S COUNTY  
Planning Department**

BACKGROUND AERIAL SOURCE  
MD SHA  
2016  
MAY 2018  
FIGURE 7







**EASE OF IMPLEMENTATION**

- MOST CHALLENGING
- MODERATELY CHALLENGING
- MODESTLY CHALLENGING
- LEAST CHALLENGING

**WB&A TRAIL EXTENSION  
FEASIBILITY ANALYSIS  
CONCEPT EVALUATION MAP**

THE MARYLAND-NATIONAL CAPITAL PARK AND PLANNING COMMISSION

**PRINCE GEORGE'S COUNTY  
Planning Department**

BACKGROUND AERIAL SOURCE  
MD SHA  
2016  
MAY 2018  
FIGURE 8





FITS  
WITHIN EXISTING  
RIGHT-OF-WAY

US 50

HARGROVE ROAD

PARLIMENT  
PLACE

FORBES BLVD

LOTTSFORD VISTA RD

ANNAPOLIS RD

FITS  
MAY REQUIRE SOME RIGHT-OF-WAY

FITS  
WITHIN EXISTING  
RIGHT-OF-WAY

**CONSTRAINT**  
-US 50  
BRIDGE OVER  
MD 704

M

MATCH LINE SEE SHEET 3

50

JOHN HANSON HIGHWAY

BALD HILL  
BRANCH PARK

MARTIN LUTHER KING JR HIGHWAY

PARLAMENT  
PL

FORBES BLVD

704

LOTTSFORD VISTA ROAD

LOTTSFORD VISTA  
ROAD

450

STUDY LIMIT

WB&A TRAIL

LINCOLN  
VISTA PARK

ANNAPOLIS ROAD

FOLLY  
BRANCH PARK

450

SCALE 1" = 100'

**EASE OF IMPLEMENTATION**

- MOST CHALLENGING**
- MODERATELY CHALLENGING**
- MODESTLY CHALLENGING**
- LEAST CHALLENGING**

**WB&A TRAIL EXTENSION  
FEASIBILITY ANALYSIS  
CONCEPT EVALUATION MAP**

THE MARYLAND-NATIONAL CAPITAL PARK AND PLANNING COMMISSION



**PRINCE GEORGE'S COUNTY  
Planning Department**

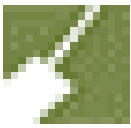
BACKGROUND AERIAL SOURCE  
MD SHA  
2016

MAY 2018

FIGURE 9





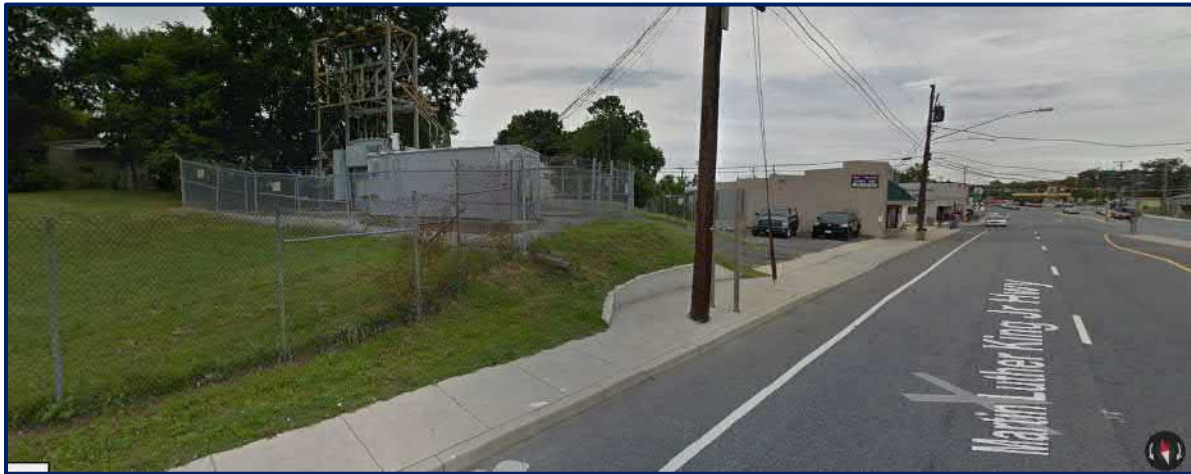


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## 4.3. Most Challenging

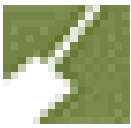
Each constraint identified is shown on the Concept Evaluation Maps (Figures 6 - 9) with a letter identifying the location that corresponds to the figure letter for each photo below the description.

### Constraint A



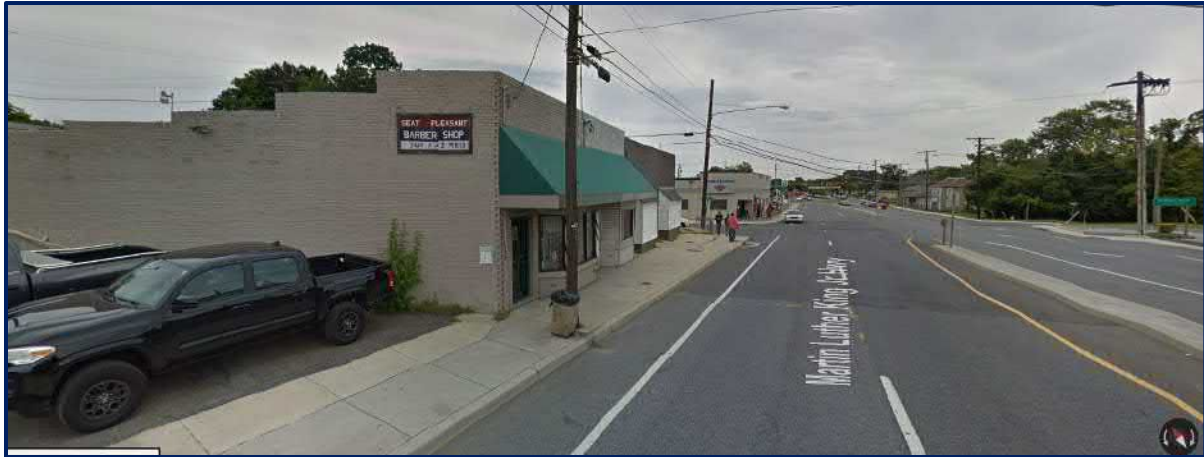
*Photo A – Eastbound MD 704, Small Retaining Wall and Utility Station (Map Data: Street View, Google)*

The first identified constraint along the north side for a 10-foot buffer and 14-foot shared use path is located at the western study limit on the corner of MD 704 and Foote Street. In between the commercial buildings is an area with a small retaining wall in front of a utility sub-station (see Photo A below and Figure 6 Concept Evaluation Map). This area would need to be investigated further to determine if the vertical grade to continue the trail up and along the embankment would meet design criteria or whether the trail would have to be moved further off alignment.



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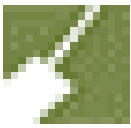
## Constraint B



*Photo B – Eastbound MD 704, Commercial Property from Eastern Avenue to Addison Road (Map Data: Street View, Google)*

The section from the Washington D.C. boundary to Addison Road is constrained by commercial properties adjacent to the roadside edge at the back of the sidewalk on both corners shown in Photo B below and Figure 6 Concept Evaluation Map. The section behind the commercial properties would need to be investigated as a potential option for the trail.





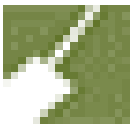
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### Constraint C



*Photo C – Eastbound MD 704, Monument in Park Next to Addison Road (Map Data: Street View, Google)*

A small park area with a monument about forty feet from the curb line is located at the northwest corner of Addison Road and MD 704. A sidewalk runs along the edge of the property with a small walking trail cutting across see Photo C below and Figure 6 Concept Evaluation Map. Further investigation would need to occur in order to pursue incorporating the trail within the existing sidewalk in the park.



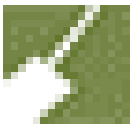
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### Constraint D



*Photo D – Eastbound MD 704, Retaining Wall along Glen Willow (Map Data: Street View, Google)*

The next identified constraint is located along the section of MD 704 from Booker Drive to Southland Drive where an existing retaining wall runs along the Glen Willow residential community, as seen in Photo D below and Figure 6 Concept Evaluation Map. Further analysis would be necessary to investigate the best way to make this connection.



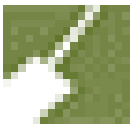
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### Constraint E



*Photo E – Eastbound MD 704, Culvert Carrying Cabin Branch (Map Data: Street View, Google)*

Constraint area E is a retaining wall located just past the Glen Willow residential community, where the roadside drops off and a culvert carries Cabin Branch under MD 704, see Photo E below and Figure 6 Concept Evaluation Map. This area would need further analysis in order to determine how to continue the trail through this area, perhaps with retaining walls, along with the necessary approvals for working within the existing park right-of-way at Cabin John Branch.



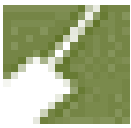
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### Constraint F



*Photo F – Eastbound MD 704, Service Road between Sheriff Road and Columbia Avenue (Map Data: Street View, Google)*

Constraint location F is the service road between Booker Drive and Carrington Avenue. The service road provides residential access to the homes located along it and is located parallel to MD 704 separated by an approximately ten-foot grass panel as shown in Photo F and Figure 6 Concept Evaluation Map. This area would require additional analysis to determine where the trail should be located.



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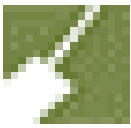
### Constraint G



*Photo G – Eastbound MD 704, Southland Drive (Map Data: Street View, Google)*

Constraint location G is a continuation of the service road, however in this section there is a retaining wall directly along the back of the sidewalk adjacent to the curb. In order to provide access, the service road climbs to reach the homes at a higher elevation, thus necessitating the retaining wall (see Photo G below and Figure 6 Concept Evaluation Map). This area would require investigating the possibility of locating the shared use path behind the residential community between the commercial property along Sheriff Road.





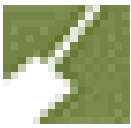
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### Constraint H



*Photo H – Eastbound MD 704, Shell Station Next to Sheriff Road (Map Data: Street View, Google)*

Constraint location H is located on the northwest corner of MD 704 and Sheriff Road near the Shell gas station as shown in Photo H. The skewed intersection with Sheriff Road along with the location of the gas pumps make it difficult to continue the trail alignment as described in Section 4.1. Additional analysis would be required to determine the best location for the trail which may require additional right-of-way (see Photo H and Figure 7 Concept Evaluation Map).



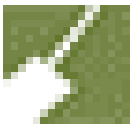
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### Constraint I



*Photo I – Eastbound MD 704, Structure Carrying Cattail Branch (Map Data: Street View, Google)*

Location I is located between Flagstaff Street and Greenleaf Road where an existing structure carries Cattail Branch under MD 704 as shown in Photo I and Figure 7 Concept Evaluation Map. As seen in the photo, the existing sidewalk is adjacent to the curb with no buffer area and is backed by a parapet and railing. In order to provide the shared use path at this location, the structure would need to be investigated as to whether it could be widened to accommodate the shared used trail.



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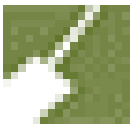
### Constraint J



*Photo J – Eastbound MD 704, MD 202 Overpass (Map Data: Street View, Google)*

Continuing east along MD 704, constraint location J is the MD 202 interchange ramps and overpass. There is not sufficient width to place the trail under the MD 202 overpass bridge since the shoulder is narrow. There are piers located in the median and behind the existing curb and a 2:1 concrete cut slope protection continues to the abutments as shown in Photo J and Figure 7 Concept Evaluation Map.

In order to maintain a trail buffer of five to ten feet, the path will need to be located between the existing west bridge abutment and concrete pier located at the edge of MD 704 westbound shoulder. The existing 2:1 concrete slope protection between the abutment and pier would need to be removed and a retaining wall constructed in front of the west abutment. Another option is to eliminate the trail buffer at the bridge and transition the trail to run along the MD 704 shoulder at the bridge. A protective barrier would need to be constructed along the edge of the MD 704 westbound lanes and the trail would run between this barrier and the existing concrete pier. This option would require the proposed trail typical section be narrowed for a short section. Further structural evaluation would need to be completed to investigate the above possibilities.



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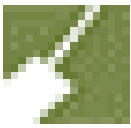
### Constraint K



*Photo K – Eastbound MD 704 at Dellwood Court (Map Data: Street View, Google)*

Photo K shows the next constraint along MD 704, the entrance walls for the Glenarden Towns community as shown in Photo K and Figure 8 Concept Evaluation Map. The entrance signs are in close proximity to the existing road and would be impacted by the shared use trail as described in Section 4.1. Additional analysis would be needed to determine the best alignment for the trail at this location. Coordination with the community would also be needed as part of this effort.





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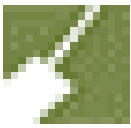
### Constraint L



*Photo L – Eastbound MD 704 at I-95/I-495 Bridge (Map Data: Street View, Google)*

Constraint location L is at the MD 704 Bridge over the Capital Beltway (I-95 / I-495). The overpass bridge provides a narrow median and five-foot shoulder, as seen in Photo L and Figure 8 Concept Evaluation Map. Again, further investigation would need to occur to analyze options on how to carry the shared use trail across the existing structure.





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### Constraint M



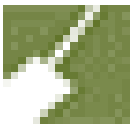
*Photo M – Eastbound MD 704, US 50 Overpass (Map Data: Street View, Google)*

The last constrained section is constraint M at the US 50 interchange as shown in Photo M and Figure 9 Concept Evaluation Map. The overpass bridge abutments are located just behind the curb line and 2:1 concrete cut slopes begin just behind the piers. This is a similar situation as the case for the MD 202 overpass where more structural investigation would be needed to resolve this issue.

#### **4.1. Moderately Challenging**

Two safety and improvement projects have recently been completed by MDOT SHA along MD 704 near the Washington D.C. boundary where the existing roadway pavement was reallocated by resurfacing and restriping that converted the six travel lanes to four travel lanes with a striped on-street bicycle lane. Reducing the number of lanes and reallocating the width to other transportation uses is known as a Road Diet. This was accomplished without reconstructing the existing curb line and underground drainage, where the buffer between the bicycle lane and travel lanes was striping only. Road diets are also implemented by moving the curb line when the number of travel lanes are reduced and provides more width outside of the roadway.

The segment from Hubbard Road to Dellwood Court, approximately 3,200 feet, may have potential for a road diet. This section begins a slope along the right of way along with commercial properties and utility lines. The segment is the only six lane section within the study area and would have to be analyzed by MDOT SHA's Travel Forecasting Division to establish whether one lane in each direction could be



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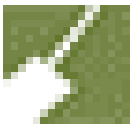
eliminated with no significant impacts to existing traffic. Coordination would have to occur as to whether it would be acceptable to buffer the shared use trail by some other means in order to avoid complete reconstruction of the existing curb and drainage system through this area. This as well as other options should be considered. Figure 12 is a graphic depiction of how the shared use path could look in along the study corridor at locations where a road diet may be implemented.



*Figure 10 – Rendering of future shared use path at potential road diet locations*

### 4.1. Modestly Challenging

The majority of the corridor can be categorized at modestly challenging, where the shared use trail can fit but requires small sections of right-of-way. These areas are shown in Figures 6 – 9 Concept Evaluation Map and are indicated in yellow and flank each of the above discussed identified constraints. The longest segment is from Hill Road to the MD 202 overpass, approximately 9,000 feet. This segment includes the constraint at Cattail Branch.



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### 4.2. Least Challenging

There are only two segments where it appears that the shared use path will fit within the existing right-of-way. They are from:

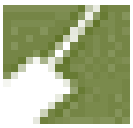
- 92<sup>nd</sup> Avenue to the U.S. 50 overpass
- Lottsford Vista Road to MD 450 Annapolis Road

They are indicated on the mapping in green and identified as the least challenging for implementation. The area between 92<sup>nd</sup> Avenue and the U.S. 50 overpass provides a wider existing right-of-way footprint but is adjacent to the Carsondale Park. Coordination would have to occur with regard to any potential impacts to the park.

The existing right-of-way area between Lottsford Vista Road and MD 450 is fairly open with some trees lining the roadway and no visible overhead utilities. However, this is the area where the approved Vista Gardens West development is to be located. Included as a condition for the approval of this development, is the construction of the WB&A Trail extension through the site within a linear park. Coordination would need to occur with this development to determine the appropriate tie in location for the trail.

Figures 10 and 11 are graphic depictions on how the shared use path could look in along the study corridor.





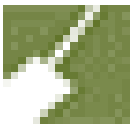
# Maryland-National Capital Park and Planning Commission



*Figure 11 – Rendering of future shared use 10-foot path with 10-foot buffer*



*Figure 12 – Rendering of future 10-foot shared use path with 5-foot buffer*



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### 4.3. Additional Design Review

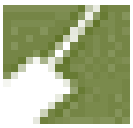
The footprint of the trail for the entire corridor was briefly reviewed to potentially reduce the amount of impacted right-of-way. To reduce the overall footprint, the shared use path was converted to a side path design; the buffer between the roadside and trail would decrease from 10 feet to the required minimum of 5 feet, the trail width would change from 10 feet to 8 feet, and the graded 2-foot shoulder closest to the right of way would be removed. This decreases the overall trail footprint from a 24-foot offset line to a 15-foot offset.

Utilizing a side path instead of the shared use path results in less potential impacts to residential and commercial properties along the modestly challenging sections. For example, Eastern Avenue to Sheriff Road contains a lot of commercial property, reducing the trail to a side path would potentially reduce the impacts to the parking lots and gas service stations adjacent to the road. Overall, the side path design did not have a significant impact to the moderately challenging sections, but the potential overall right-of-way impacts were reduced. The use of a side path throughout the most challenging sections resulted in no significant difference in the side path being able to fit at the constrained locations like retaining walls, bridges, and culverts.

### 4.4. Other Considerations

Items for consideration but not included as part of this study are stormwater management requirements, impacts and mitigation for property, streams, wetlands, parks or historic resources, and utility identification and impacts. Cost estimates were also not included in this study.





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## 5.0 COORDINATION

M-NCPPC conducted two meetings to communicate with the stakeholders and the community about the WB&A Trail extension study.

The meetings were held to gather more information about the planned trail extension and provided stakeholder input, public comments, and recommendations to be considered by the study.

### 5.1. Stakeholder Meeting

On February 13, 2018, M-NCPPC held a meeting with the agencies and interested parties that may have an interest in this feasibility study. Among the attendees were representatives from the Maryland National Capital Park and Planning Commission (M-NCPPC), City of Glenarden, Washington Area Bicyclist Association (WABA), and the Maryland Department of Transportation State Highway Administration (MDOT SHA). The purpose of the meeting was to get input from the operating agencies regarding concerns, design elements that are permitted, and to identify any other existing or planned projects along the corridor.

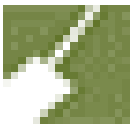
MDOT SHA representatives indicated that an at-grade crossing of MD 450 was approved for the trail within the Vista Gardens West development, no major projects are proposed along the corridor, and there is an existing bike lane from the DC line to Greenleaf Road. The WABA representative followed up with the comment that on street bike lanes are less preferable than an off-road buffered shared use path. Providing a buffered facility may make users more motivated to use the path since they would be separated from traffic. The Mayor of Glenarden discussed that creating a main street concept along MD 704 would be beneficial economically and environmentally. This would also aid eligibility for Safe Routes to School funding for the trail extension.

### 5.2. Community Meeting

On April 10, 2018 a community meeting was held at the Woodmore Town Centre Community Room in Glenarden, Maryland. The purpose of the meeting was to obtain input and feedback and ideas for how the trail can benefit the community. The project background, goals, and design constraints were presented via PowerPoint and existing conditions maps. The meeting was attended by 38 people.

The community members present were very involved and brought up many questions and concerns about the project. Some of the topics discussed included: general dimensions of the trail, how the trail would benefit the community, and how data would be gathered for this study. Some concerns that were

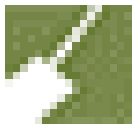
[WB&A Trail Extension Feasibility Study](#)



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discussed was whether the trail would provide ADA compliant access to existing bus stops, directional signage to other trails and streets, rest areas, and pedestrian safety against traffic. The main safety issue presented was that MD 704 is a high-volume and high-speed road is unsafe for bicycle travel. The public wanted to know how the trail would make travelling along this route easier and how it would provide safe intersection crossing options.










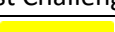


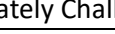

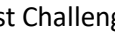

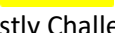

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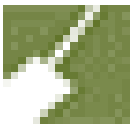
## 6.0 NEXT STEPS

### 6.1. Implementation Phases

The four categories for ease of implementation identified in this study can be used in identifying phasing efforts. The phasing was developed in attempt to design and construct continuous trail segments eliminating the short gaps in the overall trail. The table below indicates potential implementation phases for the WB&A Trail extension:

Potential Implementation Phases

Category	Limits	Improvement Type
 Modestly Challenging	Eastern Avenue to Booker Drive	Phase 3
 Most Challenging	Eastern Avenue to Booker Drive – 5 constraints identified	More detailed data and analysis in needed
 Most Challenging	Booker Drive to Carrington Avenue – 1 constraint identified	More detailed data and analysis in needed
 Modestly Challenging	Carrington Avenue to Eli Place	Phase 3
 Most Challenging	Eli Place to Hill Road – 1 constraint identified	More detailed data and analysis in needed
 Modestly Challenging	Hill Road to Hubbard Road	Phase 3
 Most Challenging	Hill Road to Hubbard Road – 3 constraints identified	More detailed data and analysis in needed
 Moderately Challenging	Hubbard Road to Dellwood Court – potential road diet	Phase 2
 Modestly Challenging	Dellwood Court to 92 <sup>nd</sup> Avenue	Phase 2
 Most Challenging	Dellwood Court to 92 <sup>nd</sup> Avenue – 2 constraints identified	More detailed data and analysis in needed
 Least Challenging	92 <sup>nd</sup> Avenue to US 50 overpass	Phase 1
 Modestly Challenging	US 50 overpass to Lottsford Vista Road	Phase 1
 Most Challenging	US 50 overpass to Lottsford Vista Road – 1 constraint identified	More detailed data and analysis in needed
 Least Challenging	Lottsford Vista Road to MD 450 Annapolis Road	Phase 1



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## 6.2. Funding Opportunities

The Bikeways Program is state grant support for a wide range of bicycle network development activities. The Program supports projects that maximize bicycle access and fill missing links in the state's bicycle system, focusing on connecting bicycle-friendly trails and roads and enhancing last-mile connections to work, school, shopping, and transit. Bikeways program has a sliding scale for cash match depending on location and type of work. This project would likely qualify for an 80% funding for design and construction of the phased connections. The Maryland Bikeways applications are typically accepted May through June.

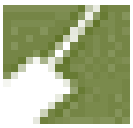
Bikeways Program can be used as match for the Transportation Alternatives Programs, referred to as the Surface Transportation Block Grant Program from the FAST Act, and should be leveraged together for maximum financial benefit. The Transportation Alternatives Program (TAP) is a reimbursable federal aid funding program for transportation related community projects designed to strengthen the intermodal transportation system. In addition to MDOT SHA, the Washington Council of Governments (MWCOG) is responsible for determining the awardees for a portion of the funding each application round. The Bikeways Program funding may serve as the required 20% cash match for this program. The TAP applications are typically from April to May.

Congestion Mitigation and Air Quality (CMAQ) is a federal funding source available to the County for projects that contribute to the attainment or maintenance of the National Ambient Air Quality Standards by reducing emissions. This funding could be a source for this project for up to 80% of the construction cost.

Funding pursuit recommendations depend on the County's match funding availability, public and elected official support, and project management resources. When utilizing federal sources for design, procurement of Architectural/Engineering (A/E) services must follow federal requirements and should be factored into the project schedule. The TAP and Bikeways Program could be utilized for ongoing design services and once a phase is ready for construction, CMAQ funds can also be leveraged for construction.

The Community Legacy Program could potentially provide a portion of the trail funding throughout the phases. Only entities who are identified as a Sustainable Community may apply. For this project, the entire corridor is not located in a Sustainable Community. The two sections that may qualify are the areas located in the Central Avenue Blue Line Metro Corridor and Kentland Palmer Park.





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Funding may also be available through MDOT SHA's Fund 88 (Bicycle Retrofit) Program since the trail extension occurs within 100-feet of a state roadway. If this project qualifies, then the local jurisdiction must agree to maintain improvements after completion, since it will be an off-road improvement. Within the corridor, Glenarden and Seat Pleasant are considered Municipal Planning Funding Areas (MPFAs). The remaining areas are just Priority Funding Areas (PFA). This could qualify the shared use path to be funded 75% by the state and 25% by local government.

Recreational Trails Program (RTP) is a federal funding source administered by the MDOT SHA for the development of community-based recreational trail projects. Eligible projects within this program include: maintenance, restoration, linkages to existing trails, and construction of new trails. Funds are available for up to 80% of the project cost. The remaining 20% of funding should be matched by the project sponsor. Although this funding is federal, it is more flexible and may be utilized with the Bikeways and TAP programs as match. RTP applications are typically submitted in June.