



Metropolitan Washington  
**Council of Governments**



# New Ave Bikeway Section D District Connector

Preliminary Design Report  
May 2023



## Table of Contents

I.	Introduction .....	1
II.	Existing Conditions.....	3
	Roadway.....	3
	Site Survey.....	4
	Utilities .....	4
	Natural Resources.....	5
	Cultural Resources .....	5
III.	Stakeholder and Community Outreach .....	5
	Kickoff Meeting – September 26, 2022: .....	5
	Route Selection Meeting – October 10, 2022:.....	5
	Public Informational Field Walk – December 10, 2022: .....	6
	Draft 30% Design – February 21, 2023: .....	6
	Virtual Public Meeting – March 2, 2023: .....	6
IV.	Design Criteria.....	6
	Sharrows .....	6
	Shared Use Path.....	6
	Speed Humps .....	7
	Street Parking.....	8
V.	Description of Proposed Improvements.....	8
	Bikeway Design .....	8
	Stormwater Management .....	10
VI.	Right of Way Requirements.....	11
VII.	Utility Impacts.....	11
VIII.	Construction Cost.....	12
IX.	Considerations for the Next Phase of Design .....	12

**List of Figures**

Figure 1 - Map of New Ave Bikeway Network ..... 2  
Figure 2 - Sharrow Marking..... 6  
Figure 3 - Takoma Park Speed Hump Profile ..... 7  
Figure 4 - Montgomery County Speed Hump Profile..... 7  
Figure 5 – Bike Route Signs ..... 9

**List of Photos**

Photo 1 - Kansas Ln Looking Towards Eastern Ave..... 3  
Photo 2 – Westmoreland Ave Looking from Kansas Ln ..... 3  
Photo 3 - 4th Ave and Orchard Ave Looking from Cockerille Ave ..... 4

**List of Tables**

Table 1 - Summary of Stormwater Requirements ..... 11

**Appendices**

Appendix A: Stakeholder Meeting Summaries  
Appendix B: Preliminary Design Plans  
Appendix C: Preliminary Construction Estimate  
Appendix D: Preliminary Agency and Community Comments, Responses  
Appendix E: Stormwater Management Calculations

## I. Introduction

Preliminary (30%) design was completed for the City of Takoma Park’s New Ave Bikeway Section D – District Connector project. The preliminary design was funded through the Metropolitan Washington Council of Governments (MWCOC) Transportation / Land-Use Connections (TLC) Grant Program. Design was completed in consultation with staff from the City, Maryland National Capital Park & Planning Commission (M-NCPPC), and local community stakeholders.

The objective of the project is to enhance bicyclist mobility by providing a safe, low-stress enjoyable bikeway connection from Poplar Avenue to the District of Columbia, while avoiding impacts to local neighborhoods, property, environmental resources, and utilities.

The project is located within the City of Takoma Park, Montgomery County, Maryland. Project limits for the New Ave Bikeway Section D – District Connector include four (4) low-volume residential streets beginning at the intersection of Kansas Lane and Eastern Avenue (DC Line) to the intersection of Poplar Avenue and New Hampshire Avenue (MD 650) as shown in Figure 1.

This report presents the existing conditions, activities undertaken in developing the 30% design and considerations for the next phase of design.





Figure 1 - Map of New Ave Bikeway Network

## II. Existing Conditions

### Roadway

The New Ave Bikeway Section D – District Connector project limits extend from the intersection of Kansas Lane at Eastern Avenue (DC Line) and continue for approximately 0.5 mile through low-volume, low-speed residential City streets to the intersection of Poplar Avenue at New Hampshire Avenue (MD 650). The neighborhood residential streets are generally characterized as variable width roadways with on-street parking and limited right of way with adjacent property features, including steep slopes, retaining walls, fences, landscaping, and driveways. The existing conditions for each major segment of the project are described below:

Kansas Lane between Eastern Avenue NE and Westmoreland Avenue: This segment of the bikeway is narrow at 23 feet to 24 feet wide (excluding gutter pan) with street parking on the east side, with non-continuous, variable width sidewalk (2 feet to 3.5 feet) on both sides with no additional right of way behind the sidewalk. Kansas Lane at Westmoreland Avenue is a raised intersection. See Photo 1.



Photo 1 - Kansas Ln Looking Towards Eastern Ave

Westmoreland Avenue between Kansas Lane and 4<sup>th</sup> Avenue: This segment of the bikeway is very narrow at 18 feet to 19 feet wide (excluding gutter pan), with street parking on the south side. There is a continuous sidewalk along the north side and the sidewalk along the south side starts at the intersection of Kansas Lane and Westmoreland Avenue and continues until it terminates at approximately 100 feet from the intersection of Westmoreland Avenue and 4<sup>th</sup> Avenue. The southwest corner of the Westmoreland / Kansas intersection is also a school bus stop. See Photo 2.



Photo 2 – Westmoreland Ave Looking from Kansas Ln

4<sup>th</sup> Avenue from Westmoreland Avenue to Cockerille Avenue: This segment of the bikeway is narrow at 19 feet to 22 feet wide (excluding gutter pan), with street parking on both sides and continuous variable width sidewalk on the west side and no sidewalk along the east side of 4<sup>th</sup> Avenue between Westmoreland and Allegheny Avenue. There is continuous 4 feet wide (typical) sidewalk along the east side of 4<sup>th</sup> Avenue between Allegheny Avenue and Cockerill Avenue. There are two (2) speed humps

located along this segment of 4<sup>th</sup> Avenue at approximately 130 feet north of the intersection with Westmoreland Avenue and approximately 50 feet south of the intersection with Orchard Avenue. There are also raised crosswalks at both the north and south legs of the intersection with Cockerille Avenue. See Photo 3.



**Photo 3 - 4th Ave and Orchard Ave Looking from Cockerille Ave**

4<sup>th</sup> Avenue from Cockerille to Poplar Avenue: This segment of the bikeway is 23 to 23.5 feet wide (excluding gutter pan), with street parking permitted on the west side of the street. There is continuous 4-foot wide (typical) sidewalk along the east side of the roadway and there is no sidewalk on the west side of the roadway. There is a speed hump at approximately 275 feet north of Cockerille Avenue.

Poplar Avenue from 4<sup>th</sup> Avenue to Gude Avenue: This segment of the bikeway varies from 24 feet to 26 feet wide (excluding gutter pan), with street parking permitted along the north side and parking with some restrictions along the south side of the roadway. There are two (2) curb extensions along the north side of the roadway that provide the minimum 36 inch wide sidewalk passing zones around utility poles and one curb extension that includes a tree with pervious area. The three (3) curb extension locations also serve as traffic calming measures. There is continuous variable width (4 feet to 5 feet) sidewalk along both sides of Poplar Avenue.

Poplar Avenue from Gude Avenue to New Hampshire Avenue (MD 650): This segment of the bikeway is 22 feet wide typical (excluding gutter pan). There is 5 feet wide sidewalk (typical) along the south side and 4 feet wide sidewalk (typical) along the north side. There is no parking allowed on either side of the roadway for this segment.

### **Site Survey**

A field run topographic survey was completed by the project team in December 2022. The survey includes curb and gutter, sidewalk, fences, utility surface features, drainage structures, street lighting, trees, and signs. A deed mosaic was prepared to establish the existing right-of-way.

### **Utilities**

A utility composite was developed based on available record information provided by utility companies and surface features identified during the field run survey. All line styles are Depicted According to Record (DATR) and in accordance with MDOT SHA CADD standards. The utility composite was developed with Quality Level (QL) C/D information. The utility composite is referenced on the 30% design plans (Appendix B).

### **Natural Resources**

A desktop investigation of mapped resources included review of: The United States Geologic Survey (USGS) Geographic Information Systems (GIS) Quadrangle Mapping; The United States Department of Agriculture; Natural Resource Conservation Service (USDA-NRCS) Web Soil Survey (WSS) for Montgomery County, Maryland; National Wetlands Inventory (NWI) GIS data; Maryland Department of Natural Resources (MDNR) Wetlands and Waters GIS data; Montgomery County Planning Department's MCATLAS map viewer; Federal Emergency Management Agency (FEMA) 100-year floodplain GIS data; and the Chesapeake Bay Critical Area GIS data. The NWI and DNR GIS mapping did not identify any wetlands or waters within the project corridor. FEMA GIS data for Montgomery County indicates that there is no 100-year floodplain within the project study area. The MD-DNR Aquatic Resources Pre-Screening Tool indicated that there are no aquatic resources of concern within the project study area. MCATLAS map viewer did not identify any forests or forest conservation easement areas within the project limits. There are street trees along the corridor that will require tree condition inventory during subsequent stages of design. Environmental permitting agency correspondence was not initiated as part of this scope of work and should be conducted during the next phase of design to confirm that there are no listed rare threatened and endangered species (RTE) concerns.

### **Cultural Resources**

A review of the MEDUSA Online system did not identify any cultural or historic resources within the New Ave Bikeway Section D – District Connector project limits. However, coordination with the Maryland Historical Trust (MHT) to review the project and offer comment shall be initiated after preliminary design.

## **III. Stakeholder and Community Outreach**

Throughout development of the 30% design, City staff and the consultant team conducted meetings with agency stakeholders and the community to obtain feedback. Agendas and minutes from agency stakeholder and community outreach meetings are included in Appendix A. The following meetings were conducted:

### **Kickoff Meeting – September 26, 2022:**

The City hosted a virtual meeting with the Metropolitan Washington Council of Governments and the consultant team to review the project scope, goals and schedule.

### **Route Selection Meeting – October 10, 2022:**

A field meeting was held with the City of Takoma Park staff to discuss two (2) potential alignment (route) options for the New Ave Bikeway District Connector improvements. The team walked both alignments to review the existing site conditions and requirements to implement the District Connector bikeway improvements along both potential routes. A Route Selection Memo was prepared to document the pros and cons for each option and to make a preferred alignment (route) recommendation for preliminary design. The Route Selection Recommendations Memo, dated October 13, 2022, is included in Appendix A.



**Public Informational Field Walk – December 10, 2022:**

City planning staff held a field walk and ride with community members to collect input for the proposed improvements. Comments were collected and considered in preparing the draft 30% design. Point-by-point responses to community feedback from this meeting are included in Appendix D.

**Draft 30% Design – February 21, 2023:**

Draft 30% plans were submitted to the City of Takoma Park on February 21, 2023. The draft plans were then distributed to other agency stakeholders, including Maryland-National Capital Park and Planning Commission (M-NCPPC) for review and comment. Agency comments received, including responses from the design team are included in Appendix D.

**Virtual Public Meeting – March 2, 2023:**

A virtual public meeting was held to present the draft 30% design to the community for comment. Comments received from the virtual public meeting are included in Appendix D.

## IV. Design Criteria

Design guidelines, standards and planning documents that were consulted for the preliminary design of the New Ave Bikeway Section D – District Connector include Montgomery County Bicycle Master Plan, NACTO Urban Bikeway Design Guide, NACTO Urban Street Design Guide, MDOT SHA Bicycle Policy & Design Guidelines, MDOT SHA Accessibility Policy & Guidelines for Pedestrian Facilities along State Highways, Maryland Manual on Uniform Traffic Control Devices (MdmUTCD), FHWA Public Right-of-Way Accessibility Guidelines (PROWAG), AASHTO Guide for the Development of Bicycle Facilities (2012, 4th Edition), the AASHTO Green Book (2018, 7th Edition) and the City of Takoma Park Streetscape Manual (2021).

### Sharrows

The MDSHA Bicycle Policy & Design Guidelines states that “on roadways with low motor vehicle volumes and/or speeds, bicycles can easily share the travelled way with other traffic and usually do not need special treatments such as bicycle lanes.” Shared lane markings, or sharrows may be considered on roadways where the speed limit is 35 mph or less. Sharrows should be placed a minimum of 4 feet from the face of curb or roadway edge to the center of the sharrow marking. The MdmUTCD states that sharrows should be placed immediately after an intersection and spaced at intervals no greater than 250 feet thereafter.



Figure 2 - Sharrow Marking

### Shared Use Path

The AASHTO Guide for the Development of Bicycle Facilities states that the minimum paved width for a two-directional shared use path is 10 feet. In some circumstances a reduced width of 8 feet can be used instead. At a minimum a 2 feet wide graded shoulder with a maximum of 1V:6H slope should be



provided for clearance from lateral obstructions such as bushes, trees, post mounted signs, and traffic control devices. The shared use path shall have a maximum cross-slope of 2% to satisfy ADA requirements.

**Speed Humps**

The Takoma Park Streetscape Manual provides design guidance for speed humps as a traffic calming treatment. There are two types of speed hump designs that are designated for use in the City of Takoma Park. The Takoma Park standard speed hump is 12 feet in length and is 3 inches to 4 inches in height. The Montgomery County standard speed hump is 12 feet and 3 inches in height. Figure 3 below shows the profile for a Takoma Park standard speed hump and Figure 4 shows the profile for a Montgomery County standard speed hump. The NACTO Urban Design Guide states that both 3-inch and 4-inch humps are safe for bicyclists. A 4-inch hump should be used with caution where bicycle traffic is frequent or rapid.

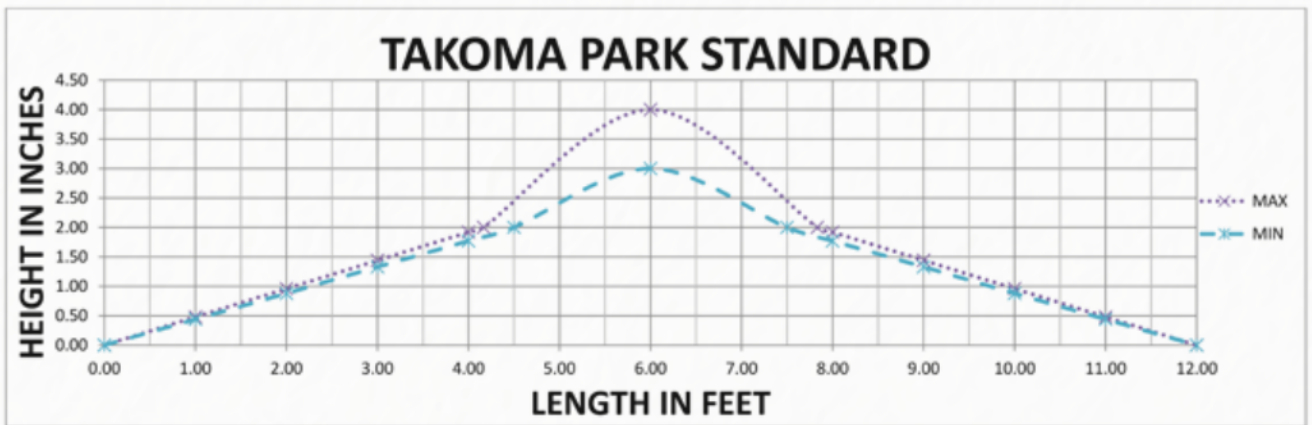


Figure 3 - Takoma Park Speed Hump Profile

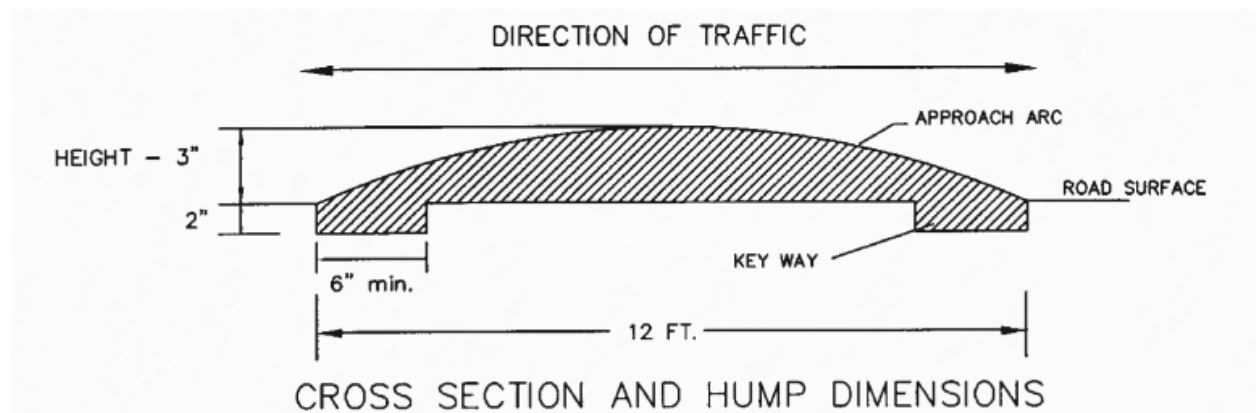


Figure 4 - Montgomery County Speed Hump Profile

## Street Parking

Chapter 31 of the Montgomery County Code prohibits to stop, stand, or park a vehicle in the following scenarios:

- Within 15 feet of a fire hydrant
- Within 20 feet of any crosswalk, whether at an intersection or not, when such crosswalk is marked off by painted lines
- Within 30 feet upon the approach to any flashing signal, stop sign, yield sign, or traffic-control signal located at the side of the roadway
- At any place an official sign prohibits parking

In residential neighborhoods the City of Takoma Park has recently constructed two-way roadways with 21' minimum roadway width and parking on one side of the street.

## V. Description of Proposed Improvements

### Bikeway Design

The objective of the proposed design is to enhance bicyclist mobility by providing a safe, low-stress enjoyable bikeway connection from Poplar Avenue to the District of Columbia, while avoiding impacts to local neighborhoods, property, environmental resources, and utilities. Providing a continuous shared use path throughout the project limits was considered during design development, however after reviewing the corridor it was determined not feasible due to right-of-way constraints, available roadway width, on-street parking requirements and utilities. The proposed improvements include sharrows (typical) along Kansas Lane, Westmoreland Avenue and 4<sup>th</sup> Avenue and a continuous 10 foot wide shared use path (SUP) along Poplar Avenue. The proposed SUP along Poplar Avenue will connect to the proposed SUP at the southern limit of the New Ave Bikeway Section B improvements at the intersection of New Hampshire Avenue (MD 650).

#### Kansas Lane between Eastern Avenue NE and Westmoreland Avenue:

The proposed improvements for this segment of the bikeway include sharrows with bike route and wayfinding signs, and sidewalk reconstruction. To address community concerns, the existing variable width (2-3.5 feet wide) sidewalk on the south side of Kansas Lane will be reconstructed to provide a continuous 5 feet wide sidewalk. A curb extension is also proposed at the southeast corner of the Westmoreland Avenue / Kansas Lane intersection to provide a 5 feet wide, ADA compliant sidewalk that also serves as the location of a school bus stop. An existing utility pole and guy anchor will require relocation to provide the desired 5 feet wide minimum sidewalk clearance. Figure 5 shows examples of bike route signs that may be considered for the improvements.



Figure 5 – Bike Route Signs

Westmoreland Avenue between Kansas Lane and 4<sup>th</sup> Avenue:

The proposed improvements for this segment of the bikeway include bike sharrows and bike route/wayfinding signs. The existing parking along the south side will not be impacted. One of the comments from the public was to switch the parking to the north side of the roadway. We recommend maintaining parking on the south side of Westmoreland Avenue with consideration given to the proposed curb extension at the southeast corner that also serves as a school bus stop.

4<sup>th</sup> Avenue from Westmoreland Avenue to Cockerille Avenue:

The proposed improvements for this segment consist of bike sharrows, bike route/wayfinding signs, and speed hump replacement. The existing parking along this segment will not be impacted. The existing Takoma Park standard speed hump nearest Westmoreland Avenue is proposed to be replaced with the more bike friendly Montgomery County standard speed hump. A shared use path was investigated through this segment on both sides of the roadway. To accommodate a SUP would require a combination of parking removal, ROW acquisition, and property impacts. Considering the low volume of vehicles, it was determined that sharrows are appropriate along this segment to avoid impacts to on-street parking and private property.

4<sup>th</sup> Avenue from Cockerille to Poplar Avenue:

The proposed improvements for this segment consist of bike sharrows, bike route/wayfinding signs, and speed hump replacement. The existing parking along this segment will not be impacted. The existing Takoma Park standard speed hump nearest Poplar Avenue is proposed to be replaced with the more bike friendly Montgomery County standard speed hump. A shared use path was investigated through this segment on both sides of the roadway and determined to not be feasible as it would require impacts to street parking and private property.

Poplar Avenue from 4<sup>th</sup> Avenue to Gude Avenue:

The proposed improvement for this segment consists of proposed curb (i.e., narrowing roadway), 10 foot shared use path, utility pole relocation, and parking removal. In the original 30% design it was proposed to construct an 8 foot path but after the public meeting the community preferred to narrow the roadway by 2 feet to increase the shared use path width to 10 feet. There is an existing utility pole in the middle of the proposed shared use path that will be relocated out of the SUP. The existing parking on the south side of the roadway is proposed to be removed. Parking will be maintained on the north side of the road between 4<sup>th</sup> Avenue and Gude Avenue.

Poplar Avenue from Gude Avenue to New Hampshire Avenue (MD 650):

The proposed improvements in this segment consist of proposed curb (i.e., narrowing roadway), 10 foot shared use path, and Type A curb at the back of path. The proposed 10 foot shared use path matches the width of the proposed New Ave Section B shared use path at New Hampshire Avenue. An 8 inch max height Type A curb is proposed in areas of the back of shared use path to limit grading within the adjacent property and avoid impacts to utility poles. The design also shows the proposed curb extension at the southwest corner of the Poplar Avenue at MD 650 intersection for the proposed New Ave Section B improvements. Turning movements were evaluated at the intersection to accommodate an SU-40 design vehicle without tracking into opposing lanes. We do not recommend extending the south curb return any further than that shown on the plans.

One of the comments from M-NCPPC was to convert Poplar Avenue from 4<sup>th</sup> Avenue to New Hampshire Avenue into a “Neighborhood Greenway”. From our initial review we do not recommend a greenway because of its proximity to New Hampshire Avenue. The MCDOT Bicycle Master Plan states neighborhood greenways should be applied to streets with low volumes (less than 3,000 ADT) and that are parallel to major roadways. Poplar Avenue is perpendicular to New Hampshire Avenue and it is estimated the ADT is above the minimum threshold. This can be investigated further during subsequent design phases to determine the viability of a Neighborhood Greenway for this segment.

**Stormwater Management**

Stormwater management for the proposed design is in accordance with the *Maryland Stormwater Design Manual (Revised May 2009)* and *Takoma Park City Code, Section 16.04*. Per the guidelines in this manual, for “redevelopment” areas the goal is 50% removal of existing impervious. All POIs classify as redevelopment, therefore, 50% of existing pavement within the LOD that is not removed is required to be treated at a PE of 1.0 inch for water quality purposes. New impervious area is to be treated at the appropriate composite PE, based on soil type.

**POI 1** is located at an existing inlet along westbound Eastern Avenue before the intersection with Kansas Lane. The work proposed in this POI involves sidewalk reconstruction and ADA compliant upgrades.

**POI 2** is located at an existing inlet along northbound Kansas Lane between Eastern Avenue and Westmoreland Avenue. The work proposed in this POI involves sidewalk reconstruction and ADA compliant upgrades.

**POI 3** is located at an existing inlet along eastbound Westmoreland Avenue between Kansas Lane and 4<sup>th</sup> Avenue. The work proposed in this POI involves sidewalk reconstruction and ADA compliant upgrades.

**POI 4** is located at an existing inlet along westbound Poplar Avenue after the intersection with Gude Avenue. The work proposed in this POI involves shared use path construction and ADA compliant upgrades.

**POI 5** is located at an existing inlet along eastbound Poplar Avenue between Gude Avenue and New Hampshire Avenue. The work proposed in this POI involves shared use path construction and ADA compliant upgrades.

The stormwater requirements for these POIs are summarized below in Table 1. See Appendix E for detailed calculations.

**Table 1 - Summary of Stormwater Requirements**

<b>POI</b>	<b>ESDv POI (CF)</b>	<b>ESDv Redevelopment (CF)</b>
1	0	0
2	-90	103
3	0	0
4	90	172
5	138	172
<b>TOTAL</b>	<b>-</b>	<b>447</b>

Across most of the project corridor, residential property is directly adjacent to all sidewalks. A microbioretention is proposed in POI 2 at the corner of Eastern Avenue and Kansas Lane to provide 1311 CF of ESDv. With over-treatment in POI 2, water quality is provided in excess for the project as a whole. A waiver for quantity control under 16.04.080 will most likely be required for POIs 4 and 5 as there is a net increase of impervious area within those POIs.

Drainage upgrades withing the project corridor are limited to those structures which are impacted by the proposed work and an open back inlet for the SWM facility. As there is a minimal increase in impervious area for all POIs where storm drain improvements are proposed, it is assumed that peak flows will not increase, and therefore existing storm drain pipes will have adequate capacity to convey flow. There are no known flooding concerns in this area.

## **VI. Right of Way Requirements**

Right of way impacts are not anticipated based on the proposed improvements. Regarding the proposed sidewalk reconstruction at the southwest corner of Westmoreland Avenue and Kansas Lane, further research of right of way deeds should be performed during the next phase of design to confirm if the proposed sidewalk improvements are within the existing right of way or an existing easement.

## **VII. Utility Impacts**

There are two utility pole relocations required to accommodate the improvements. The two (2) utility poles that require relocation are located at the southwest corner of the Westmoreland Avenue and



Kansas Lane intersection (station 13+75, RT) and on Poplar Avenue at approximately station 21+10 LT. The pole at station 13+75, RT will be relocated within the existing right-of-way to provide a 3 feet wide minimum sidewalk clearance. The pole at station 21+10, LT will be relocated to 1 foot behind the shared use path.

## **VIII. Construction Cost**

The estimated construction cost for the New Ave Bikeway – District Connector improvements is \$480,850. This includes a 30% contingency and 6% contingency for utility relocations. See Appendix C for the detailed cost estimate, including a list of assumptions and exclusions.

## **IX. Considerations for the Next Phase of Design**

As the City pursues future phases of design, the following items should be reviewed to ensure coordination of next steps to further evaluate and detail the recommended improvements required to enhance the City's New Ave Bikeway Section D – District Connector improvements:

- Perform tree condition survey and assess tree impacts (Kansas Lane and Poplar Avenue)
- Review right of way (ROW) deeds to confirm if ROW impacts are required at the southeast corner of Kansas Lane and Westmoreland Avenue.
- Coordinate with Maryland Historic Trust
- Coordinate with Natural Resources Agencies
- Prepare SWM Concept Package, secure City Approval
- Apply for Forest Exemption Request
- Submit Mandatory Referral Application to M-NCPPC
- Perform a utility designation (QL-B/A). Assess utility impacts and coordinate with utility owners
- Subsurface Geotechnical Investigation, including soil borings to confirm viability of SWM practices

## **APPENDIX A**

### **Stakeholder Meeting Summaries**

**MWCOG TLC Program FY2023**  
**Contract No. 21-093**  
**DESIGN KICK-OFF MEETING**  
**AGENDA**

**Project:** City of Takoma Park, 2 Projects:  
**Metropolitan Branch Trail Upgrade**  
**New Ave Bikeway – District Connector (Section D)**  
Preliminary (30%) Design

**Date & Time:** Monday, September 26, 2022 - 11:00 AM  
Virtual Teams Meeting

**Attendees:**

NAME	AGENCY	PROJECT ROLE	EMAIL
Alex Freedman	City of Takoma Park, Planning & Community Development Division	Project Manager	<a href="mailto:alexanderf@takomaparkmd.gov">alexanderf@takomaparkmd.gov</a>
Erin Morrow	MWCOG	Project Liaison	<a href="mailto:emorrow@mwkog.org">emorrow@mwkog.org</a>
Rick Adams	RK&K	Project Director	<a href="mailto:radams@rkk.com">radams@rkk.com</a>
Rob Gillespie	RK&K	Project Manager	<a href="mailto:rgillespie@rkk.com">rgillespie@rkk.com</a>

**1. Introductions**

**2. Overview of TLC Program Roles**

- a. MWCOG
  - i. TLC Project Expectations
- b. City of Takoma Park
- c. Stakeholders – contacts
  - i. **MBT Upgrade**
    - WMATA, Montgomery College, neighborhood associations
  - ii. **New Ave Section D**
    - neighborhood associations, MDOT SHA
- d. Consultants – RK&K with CDDI as DBE subconsultant

**3. Project Area, Objectives**

- a. **MBT Upgrade**
  - i. City maintained section of MBT, 0.45 miles
    - Trail runs adjacent Takoma Ave / Fenton St from DC Line to Silver Spring
    - Improve safety per current design standards and best practices
      - alignment, width, clearances, lighting, intersection treatments sustainable paving
      - minimize impacts to local neighborhoods / property, environmental resources, utilities



b. **New Ave Section D**

- i. City's southern-most section of the New Ave Bikeway
- Intersection of MD 650 / Poplar Ave thru low-volume neighborhood streets connecting to Kansas Lane (bike lanes) at DC line
    - Provide a safe, low-stress enjoyable bikeway connection
    - minimize impacts to local neighborhoods / property, environmental resources, utilities

**4. Deliverables**

- a. [MBT Upgrade - Existing Conditions Memo](#)
- b. [New Ave Section D - Route Selection Memo](#)
- c. Preliminary Plans (30%)
- d. Cost Estimates
- e. Design Reports
- f. Presentation

**5. Schedule**

*Work must be completed by June 30, 2023.*

Work Plan and Schedule			
Task	Week	Status	Completion Date
1. Call / Kickoff with City & MWCOG	0	Complete	9/26/2022
2. Review Background Information, WMATA Records	2		10/12/2022
3. Submit Miss Utility Design Ticket, Request Records	2		10/12/2022
4. <a href="#">Field Walk w/ City: Route Selection (New Ave Sec D)</a>	3		10/21/2022
5. <a href="#">Field Walk w/ City &amp; other Stakeholders (MBT)</a>	5		11/2/2022
6. <a href="#">Submit Route Selection Memo (New Ave Sec D)</a>	5		11/4/2022
7. Perform Surveys, Prepare Utility Files & Base Maps	11		12/16/2022
8. <a href="#">Submit Existing Conditions Memo w/ Recommendations (MBT)</a>	12		12/21/2022
9. Submit Preliminary (30%) Designs	18		2/1/2023
10. Receive City/Agency Stakeholder Comments	22		3/1/2023
11. Draft Concept Design Report	25		3/22/2023
12. Final Concept Design Report, Plans & Estimates	28		4/12/2023
13. Final Presentation	TBD		TBD

**6. Next Steps**

- Request record plans from utility owners and WMATA (MBT)
- Schedule Field walks
  - Select Preferred Route for New Ave Section D
  - Discuss objectives / requirements with WMATA, Montgomery College for MBT
- Schedule Topographic and Boundary surveys

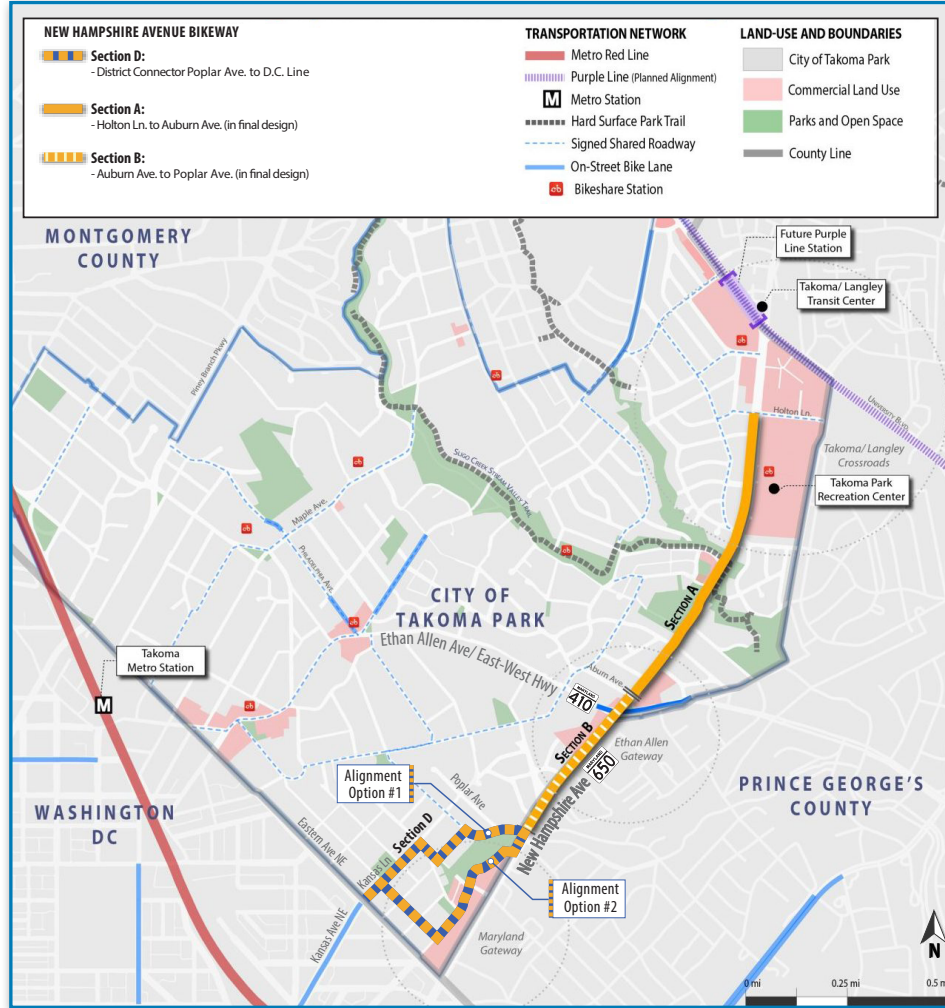
Attachment: Vicinity Maps



# Takoma Park Metropolitan Branch Trail Upgrade



# New Ave Bikeway–District Connector (Section D)





**MWCOG TLC Program FY2023  
Contract No. 21-093  
ROUTE SELECTION MEETING  
AGENDA**

**Project:** **New Ave Bikeway – District Connector (Section D)**  
Preliminary (30%) Design

**Date & Time:** Monday, October 10, 2022 - 11:30 AM  
Project Site

**1. Introductions**

**2. Project Limits – Section D**

- a. City's southern-most section of the New Ave Bikeway
  - i. Intersection of MD 650 / Poplar Ave thru low-volume neighborhood streets connecting to Kansas Lane (bike lanes) at DC line

**3. Evaluate Route Options**

- a. Route Option #1
  - i. Poplar Ave – 4<sup>th</sup> Ave – Westmoreland Ave – Kansas Ln
- b. Route Option #2
  - i. MD 650 southbound (350') – behind Takoma Tire & Auto (southwesterly direction) – Sligo Mill Rd – Paper Street – Westmoreland Ave – Kansas Ln

**4. Select Preferred Route**

**5. Next Steps**

- a. Prepare Route Selection Memo
- b. Commence Surveys, Utility Records Collection

Attachments:  
Map with Route Options



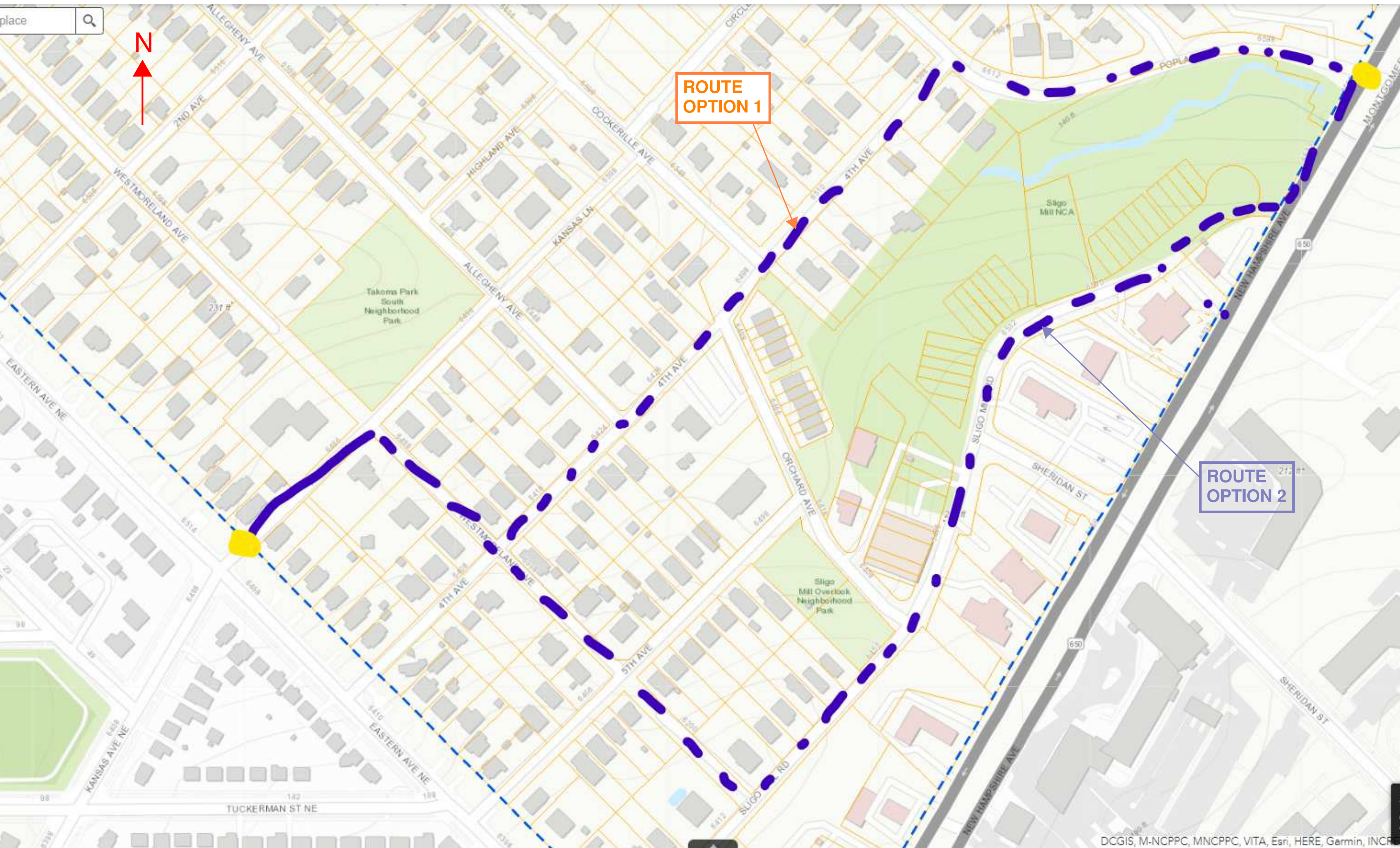


place



ROUTE  
OPTION 1

ROUTE  
OPTION 2







700 East Pratt Street, Suite 500  
 Baltimore, MD 21202  
 Phone 410.728.2900  
 www.rkk.com

# MEMORANDUM

**Date:** October 13, 2022

**To:** City of Takoma Park, MD  
 Mr. Alexander Freedman, Community Development Manager  
 Ms. Daryl Braithwaite, Director of Public Works

MWCOG  
 Department of Transportation Planning  
 Ms. Erin Morrow, Transportation Engineer

**From:** RK&K  
 Mr. Robert Gillespie, PE, Project Delivery Leader

**Re:** **New Ave Bikeway Section D – District Connector:  
 Route Selection**

## I. ATTENDEES

NAME	AGENCY	PROJECT ROLE	EMAIL
Alex Freedman	<a href="#">City of Takoma Park, Planning &amp; Community Development Division</a>	<a href="#">Project Manager</a>	<a href="mailto:alexanderf@takomaparkmd.gov">alexanderf@takomaparkmd.gov</a>
Daryl Braithwaite	<a href="#">City of Takoma Park Public Works</a>	<a href="#">Advisory / Support</a>	<a href="mailto:daryl@takomaparkmd.gov">daryl@takomaparkmd.gov</a>
Ian Chamberlain	<a href="#">City of Takoma Park Public Works</a>	<a href="#">Advisory / Support</a>	<a href="mailto:ianc@takomaparkmd.gov">ianc@takomaparkmd.gov</a>
Rob Gillespie	<a href="#">RK&amp;K</a>	<a href="#">Project Manager</a>	<a href="mailto:rgillespie@rkk.com">rgillespie@rkk.com</a>

## II. BACKGROUND & PURPOSE OF MEETING

The *New Ave Bikeway Section D – District Connector* project is funded through the Metropolitan Washington Council of Governments (MWCOG) Transportation/Land-Use Connections (TLC) Grant Program and being developed in consultation with staff from the City of Takoma Park and other local stakeholders.

The objective of the project is to enhance bicyclist mobility by providing a safe, low-stress enjoyable bikeway connection from Poplar Avenue to the District of Columbia, while avoiding impacts to local neighborhoods, property, environmental resources and utilities.

A field meeting was scheduled to review existing site conditions and requirements to implement the New Ave Bikeway Section D – District Connector along two (2) potential routes and to select a preferred route for subsequent surveys and preliminary engineering. The attendees identified in Section I met at the corner of Poplar Avenue and New Hampshire Avenue (MD 650) to walk both potential routes on October 10, 2022.

### III. PROJECT LIMITS

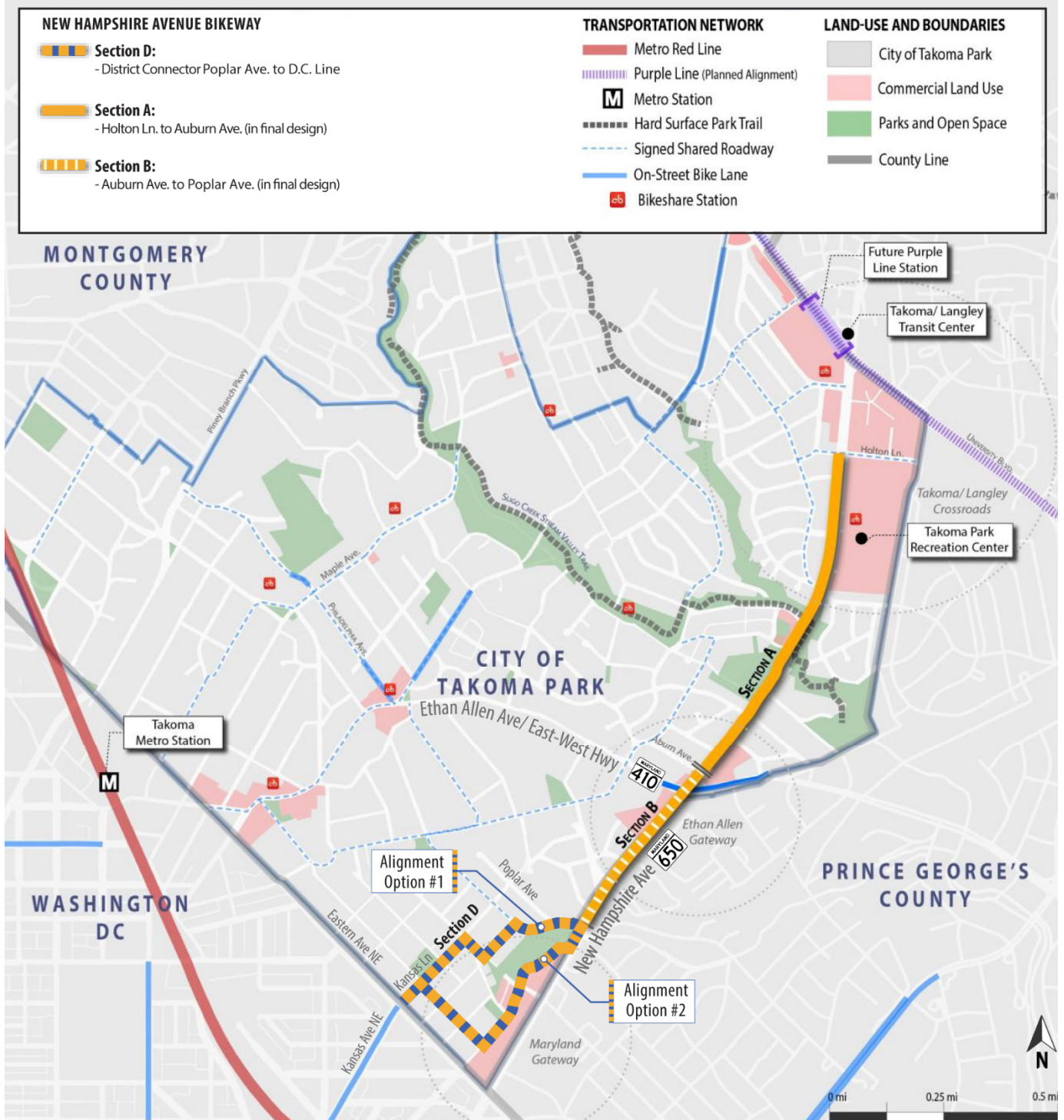
The City of Takoma Park’s New Ave Bikeway is divided into three (3) sections of the approximately 1.7 – mile corridor which extends along the southbound side of New Hampshire Avenue (MD 650) from Holton Lane south to Poplar Avenue and then through residential neighborhood City streets to the District of Columbia line. The division of the bikeway into smaller sections allows the City to pursue various grant funding opportunities to move the design and ultimately construction of the project forward. The sections are depicted in Figure 1, with the limits and design status described below:

- **SECTION A:** approximately 4,100 linear foot segment between Holton Lane to Auburn Avenue. Project is currently in final design.
- **SECTION B:** approximately 2,200 linear foot segment from Auburn Avenue to Poplar Avenue. Final Design completed in September 2022.
- **SECTION D:** approximately 2,650 linear foot segment from Poplar Avenue to the DC Line at Kansas Avenue NE. Preliminary design will be completed under this MWCOG TLC Grant by June 30, 2023.

Two potential routes were identified for the District Connector - Section D as depicted in Figure 1 and the attachment, with the limits described below:

- **ALIGNMENT (ROUTE) OPTION # 1** begins at the northwest corner of the intersection of New Hampshire Avenue (MD 650) and Poplar Avenue. The route would continue west along Poplar Avenue for approximately 750 feet to the intersection of 4<sup>th</sup> Avenue, where it would continue south of 1,250 feet to the intersection of Westmoreland Avenue; continue west for 315 feet to Kansas Lane; and turn south along Kansas Lane for 375 feet to the DC line at the intersection of Eastern Avenue NE, where it would tie-into the existing bike lanes that continue south along Kansas Avenue NE.
- **ALIGNMENT (ROUTE) OPTION # 2** begins at the northwest corner of the intersection of New Hampshire Avenue (MD 650) and Poplar Avenue. The route would continue south along MD 650 for approximately 350 feet, where it would turn in a south-westerly direction and extend for 325 feet along a vacant wooded lot that runs behind the Takoma Tire and Auto Shop and is shown on the Montgomery County / M-NCPPC GIS database as a future cul-de-sac extension of Sligo Mill Road; it would continue to the current dead end of Sligo Mill Road and extend south along Sligo Mill Road for 1,250 feet; then extend west for approximately 330 feet along a “paper street” with dedicated right of way for a future extension of Westmoreland Avenue to the intersection of 5<sup>th</sup> Avenue; continue north along Westmoreland Avenue for 655 feet to Kansas Lane; then turn south along Kansas Lane for 375 feet to the DC line at the intersection of Eastern Avenue NE, where it would tie-into the existing bike lanes that continue south along Kansas Avenue NE.

**FIGURE 1: PROJECT AREA MAP**





## IV. EXISTING CONDITIONS

The existing conditions for both Section D route options mostly follow established City of Takoma Park residential neighborhood streets with variable width, on-street parking and limited right of way with adjacent property features, including steep slopes, retaining walls, fences, landscaping and driveways. The exception being that for Route Option #2, there is a 350 feet segment of the Bikeway that would follow adjacent to the southbound MD 650 travel lanes within MDOT SHA right of way and adjacent to M-NCPPC (Parks) property with sensitive environmental features. The existing conditions for each major segment associated with both routes are described below:

- Poplar Avenue (Route Option # 1): variable width sidewalk (4-5 feet wide) and street parking on both sides. There are on-street parking restrictions in some locations. The roadway width west of the signalized intersection with MD 650 is 24-26 feet wide with adjacent steep slopes and no additional right of way behind the sidewalks. See Photo 1.
- 4<sup>th</sup> Avenue from Poplar Ave to Cockerille Ave (Route Option # 1): This segment includes a 5-foot wide concrete sidewalk along the east side of 4<sup>th</sup> Avenue with adjacent slopes and no right of way behind the sidewalk. There is street parking permitted on the west side of the street.
- 4<sup>th</sup> Avenue from Cockerille Ave to Westmoreland Ave (Route Option # 1): This segment is very narrow at 22'-23' wide with variable width sidewalk and street parking on both sides (typical) with no additional right of way behind the sidewalk.
- Southbound New Hampshire Ave (Route Option # 2): This segment includes a 5-foot wide sidewalk with no buffer adjacent to the southbound MD 650 travel lanes with adjacent traffic barrier w-beam (guardrail) protecting steep slopes with forest stands within the Takoma Branch Stream Valley. See Photo 2.
- Planned Extension of Sligo Mill Rd (Route Option # 2): This segment includes a vacant wooded area that extends from southbound MD 650 travel lanes in a southwesterly direction behind the Takoma Tire and Auto Shop to what is shown on the Montgomery County / M-NCPPC GIS database as a planned development and extension of Sligo Mill Road from the current intersection with Sheridan Street approximately 550 feet terminating as a cul-de-sac. As shown in the attached map, the planned parcels and cul-de-sac are shown within M-NCPPC (Parks) property.
- Sligo Mill Rd (Route Option # 2): There is sporadic sidewalk along Sligo Mill Road beginning on the east side at Sheridan Street extending to Orchard Avenue. The section of Sligo Mill Road from Orchard Avenue to the DC Line at Eastern Avenue NE does not have any pedestrian or bike facilities. However, the City is completing design for a 5 foot wide sidewalk along the west side of Sligo Mill Road within these limits. The retrofit of the 5 foot wide sidewalk requires a reduction to the curb-to-curb roadway width to avoid property and utility impacts.

PHOTO 1: POPLAR AVE  
LOOKING EAST



PHOTO 2: SOUTHBOUND  
MD 650

- Extension of Westmoreland Ave / “Paper Street” (Route Option # 2): This segment is undeveloped with several mature trees surrounding the adjacent properties at 6414 Sligo Mill Road, 6411 5<sup>th</sup> Avenue and 6413 5<sup>th</sup> Avenue.
- Westmoreland Ave between 5<sup>th</sup> Ave and 4<sup>th</sup> Ave (Route Option # 2): This roadway segment is narrow at 23’-24’ wide with street parking on both sides, no existing sidewalk and adjacent steep grades with very limited right of way.
- Westmoreland Ave between 4<sup>th</sup> Ave and Kansas Ln (Route Options # 1 and # 2): This roadway segment is very narrow at 18’ wide, with street parking on the south side and sidewalk (typical) on both sides with no additional right of way behind the sidewalk. See Photo 3.
- Kansas Ln between Westmoreland Ave and Eastern Ave NE (Route Options # 1 and # 2): This roadway segment is narrow at 22’ wide with street parking on the east side and sporadic, variable width sidewalk (2.5’-4’) on both sides with no additional right of way behind the sidewalk. See Photo 4.



PHOTO 3: WESTMORELAND AVE AT KANSAS LN

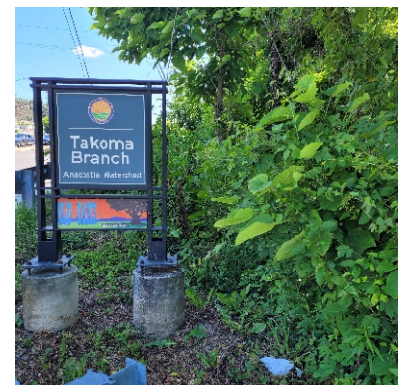


PHOTO 4: KANSAS LN LOOKING TOWARDS EASTERN AVE NE

## V. EVALUATION OF OPTIONS & RECOMMENDATIONS

After completion of the field walk of both potential routes on October 10, 2022, the following considerations were provided for selecting a preferred route for preliminary design:

- ALIGNMENT (ROUTE) OPTION # 1
  - **PROS:**
    - Avoids environmental impacts, including forest stand and the Takoma Branch stream valley
    - Entire route follows low-volume, low-speed side streets
    - Does not require permit-approval from MDOT SHA or M-NCPPC
  - **CONS:**
    - Narrow streets with limited right-of-way not feasible for retrofit of consistent bicycle facilities:
      - Requires combination of shared use path, where space allows and share the road signing where space does not allow



Note: A potential sub-alternate for Route Option # 1 was identified as extending the Section D Bikeway south along 4<sup>th</sup> Avenue from Westmoreland Avenue to Eastern Avenue NE, where District DOT has planned multi-modal improvements.

- **ALIGNMENT (ROUTE) OPTION # 2**

- **PROS:** None were identified

- **CONS:**

- Southbound MD 650: Implementation of shared use path (8' wide effective with 1'-2' wide buffer) for approximately 350 feet requires the following:

- Environmental impacts to forest stand and the Takoma Branch stream valley
- Utility impacts to overhead facilities and a large vault located behind the traffic barrier w-beam
- Narrowing of southbound MD 650 travel lanes
- MDOT SHA and M-NCPPC design reviews and permit-approvals

- Planned Extension of Sligo Mill Rd:

- Environmental impacts to forest stand
- M-NCPPC design reviews and permit-approvals
- Potential bikeway impacts from future development

- Extension of Westmoreland Ave / “Paper Street”

- Tree impacts on public / private property
- Potential bikeway impacts from future road improvement

- Sligo Mill Rd (Orchard Ave to DC Line):

- City has a separate sidewalk improvement project in design that includes reducing the roadway width to retrofit a 5 foot wide sidewalk with no buffers. The roadway width accommodates street parking on one side and one travel lane.
  - Reducing the roadway width any further is not viable
  - Widening the sidewalk another 3 feet towards properties would require impacts to property and utilities



**PHOTO 5: SOUTHBOUND MD 650  
LOOKING NORTH AT POPLAR AVE**

New Ave Bikeway Section D – District Connector

Route Selection Memorandum

October 13, 2022

- Narrow streets with limited right-of-way not feasible for retrofit of consistent bicycle facilities:
  - Requires combination of shared use path, where space allows and share the road signing where space does not allow

**The design team selected Alignment (Route) Option # 1 as the preferred alternative** for preliminary design of the New Ave Bikeway Section D – District Connector. A sub-alternate to Option # 1 that extends the Section D Bikeway south along 4<sup>th</sup> Avenue from Westmoreland Avenue to Eastern Avenue NE, where District DOT has planned multi-modal improvements, will also be identified on the preliminary design plans.

Attachment

*Route Options Map with Montgomery County / M-NCPPC GIS data*

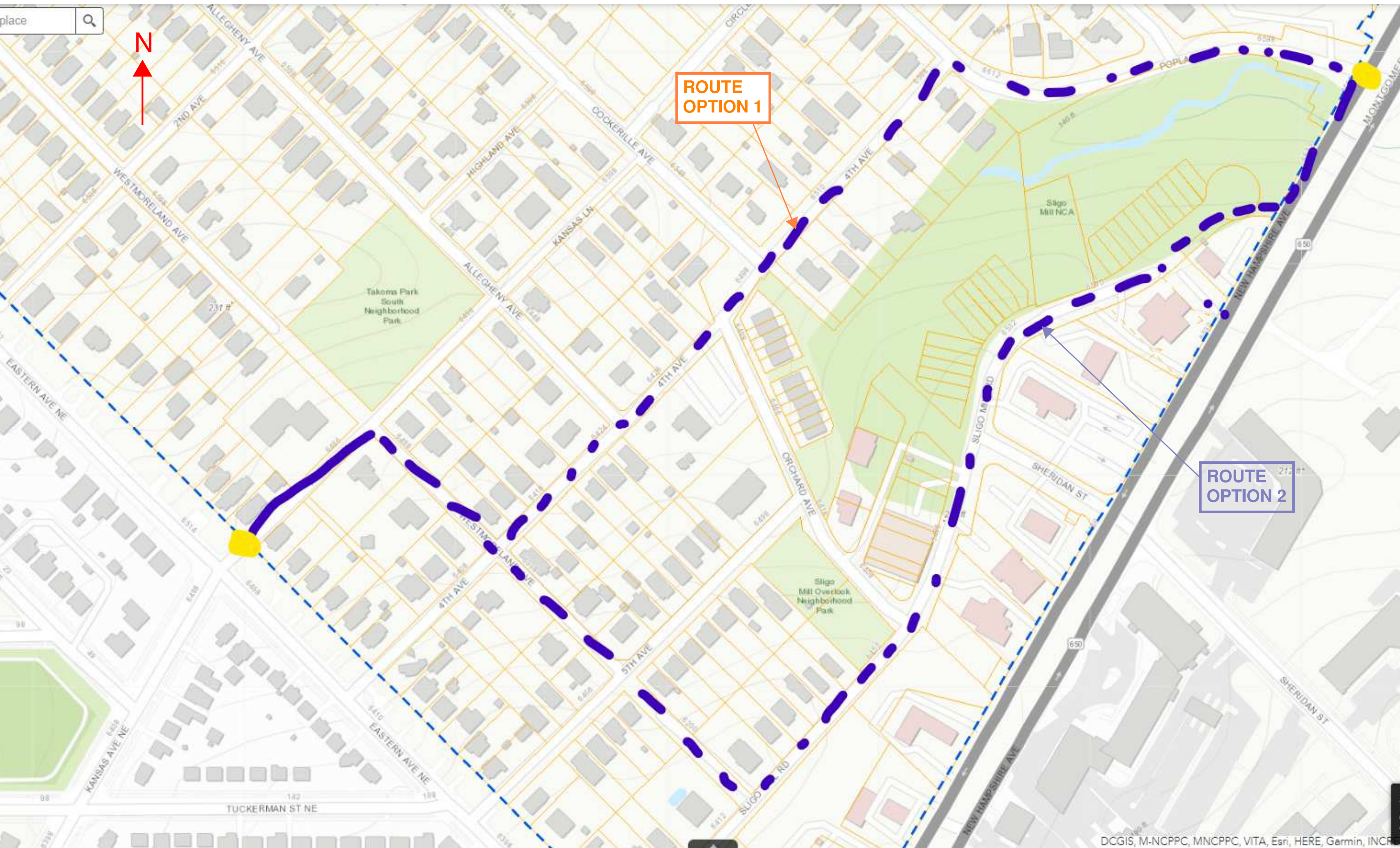


place



ROUTE  
OPTION 1

ROUTE  
OPTION 2





## **APPENDIX B**

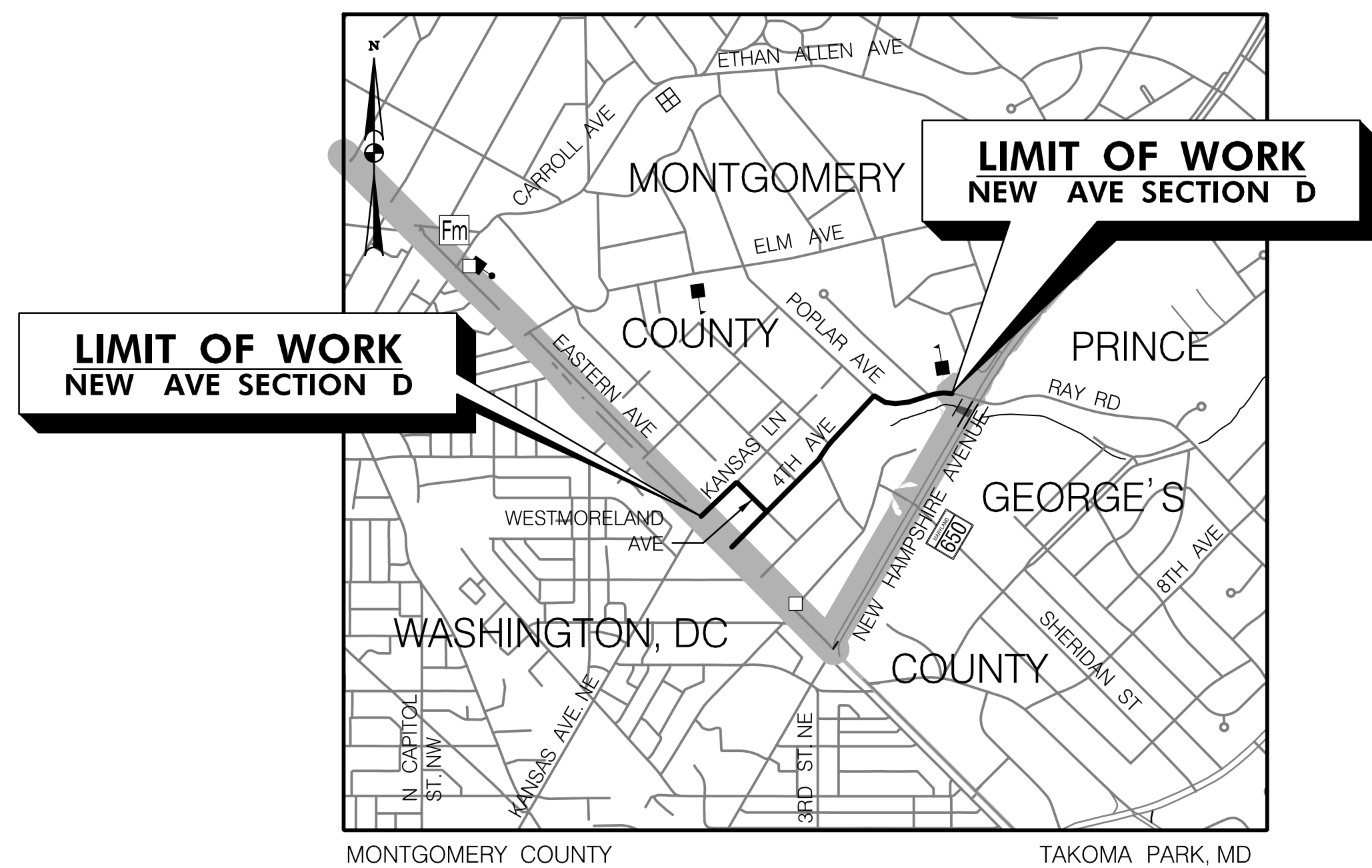
### **Preliminary Design Plans**



# THE CITY OF TAKOMA PARK AND THE METROPOLITAN WASHINGTON COUNCIL OF GOVERNMENTS (MWCOCG) NEW AVE BIKEWAY SECTION D DISTRICT CONNECTOR MWCOCG CONTRACT NO. 21-093

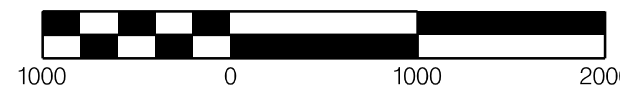
## INDEX OF SHEETS

SHEET NO.	DRAWING NO.	SHEET NAME
1	TS-01	TITLE SHEET
2	AB-01	NOTES, ABBREVIATIONS, AND SYMBOLS
3	GS-01	GOMETRY SHEET
4	HT-01	TYPICAL SECTIONS
5-9	HD-01 TO HD-05	PLAN SHEETS



## LOCATION MAP

SCALE: 1" = 1000'



**PROJECT LENGTH = 0.51 MILES**

HORIZONTAL DATUM	NAD 83 /11
VERTICAL DATUM	NAVD 88

**30% DESIGN SUBMITTAL  
MAY 2023**

**NOT FOR CONSTRUCTION**



P: 410.728.2900  
700 East Pratt Street, Suite 500 | Baltimore, MD 21202

Engineers | Construction Managers | Planners | Scientists  
www.rkk.com

Responsive People | Creative Solutions

BY: aguilera -

# ABBREVIATIONS

AASHTO ..... American Association of State Highway Transportation Officials	HDWL..... Headwall	RW or RW... Right of Way
ADT.....Average Daily Traffic	HERCP.....Horizontal Elliptical Reinforced Concrete Pipe	RCP ..... Reinforced Concrete Pipe
AHD.....Ahead	HP.....High Point	RCPP ..... Reinforced Concrete Pressure Pipe
APPROX.....Approximate	IN.....Inch	R.Q.D. .... Rock Quality Designation
BL or BL.....Baseline	I.S.T.....Inlet Sediment Trap	R.M. .... Rootmat
BK .....Back /Book	INV.....Invert	S ..... South
BIT.....Bituminous	J.B.....Junction Box	SAN.....Sanitary Sewer
B.C.....Bituminous Concrete	K .....K Inlet	SB or SB ..... Southbound
B.M.....Bench Mark	L .....Length	S.D. .... Storm Drain
BOT.....Bottom	LF .....Linear Feet	S.D.D. .... Surface Drain Ditch
C.C.....Center of Curve	L.L.....Liquid Limit	SE ..... Super Elevation
CAP.....Corrugated Aluminum Pipe	LP .....Low Point	SF ..... Silt Fence
CAPA.....Corrugated Aluminum Pipe Arch	L.P.....Light Pole	SF ..... Square Feet
CATV.....Cable Television	LT.....Left	SHT.....Sheet
C.B.R.....California Bearing Ratio	MAC.....Macadam	SPP ..... Structural Steel Plate Pipe
CL or CL.....Centerline	M.C.....Moisture Content	SPPA ..... Structural Steel Plate Pipe Arch
CL .....Class	MAX.....Maximum	S.P.T.....Standard Penetration Testing
CLF.....Chainlink Fence	M.D.D.....Maximum Dry Content	SRP ..... Steel Spiral Rib Pipe – Aluminized Type 2
CMP.....Corrugated Metal Pipe	MOD.....Modified	SRPA ..... Steel Spiral Rib Pipe Arch – Aluminized Type 2
C.O.....Cleanout	MIN.....Minimum	SSD ..... Stopping Sight Distance
COMB.....Combination	N.....North	SSF ..... Super Silt Fence
CONC.....Concrete	NB .....Northbound	STD.....Standard
CONSTR.....Construction	NE .....Northeast	STA.....Station
COR.....Corner	N.P.....Non-Plastic	SO.....Single Opening
CORR.....Correction	O.C.....On Center	SY ..... Square Yards
CPP-S.....Corrugated Polyethylene Pipe – Type 'S'	OHE.....Overhead Electric	SWM.....Stormwater Management
CSP .....Corrugated Steel Pipe – Aluminized Type 2	O.M.....Optimum Moisture	T .....Tangent
CSPA .....Corrugated Steel Pipe Arch – Aluminized Type 2	PAV T.....Pavement	T .....Telephone
DC.....Degree of Curve	PC .....Point of Curvature	T.C.....Top of Cover
D.H.V.....Design Hourly Volume	PCC .....Point of Compound Curvature	T.G.....Top of Grate
D.I.....Drop Inlet	PC .....Point of Crown	T or TL ..... Traverse Line
DIA.....Diameter	PGE .....Profile Grade Elevation	T.M.....Top of Manhole
D.O.....Double Opening	P.G.E.....Profile Ground Elevation	TRAV.....Traverse
E .....East	P.G.L.....Profile Grade Line	TS .....Temporary Swale
E .....Electric	P.GL.....Profile Ground Line	T.S.....Top of Slab
E .....External Distance	P.R .....Point of Rotation	T.S.....Topsoil
EA .....Each	P.I.....Plasticity Index	TYP.....Typical
EB .....Eastbound	PI .....Point of Intersection	U.D.....Under Drain
ELEV.....Elevation	POC.....Point On Curve	U.G.....Underground
ES.....End Section	POT.....Point On Tangent	U.P.....Utility Pole
EX or EXIST.....Existing	PPWP.....Polyvinyl Chloride Profile Wall Pipe	USDA.....United States Department of Agriculture
FT .....Feet	PROP.....Proposed	VCL.....Vertical Clearance
F or FL.....Flowline	PRC.....Point of Reverse Curve	V.C.L.....Vertical Curve Length
F.B.D.....Flat Bottom Ditch	PT .....Point	W .....Water
F.H.....Fire Hydrant	PT .....Point of Tangency	W .....West
FWD.....Forward	PVC.....Point of Vertical Curve	WB .....Westbound
G .....Gas	PVC.....Polyvinyl Chloride	WB .....Wetland Buffer
G.V.....Gas Valve	PVI.....Point of Vertical Intersection	W.M.....Water Meter
H.B.....Handbox	PVRC.....Point of Vertical Reverse Curve	W.S.....Wrapped Steel
HDPE.....High Density Polyethylene	PVT.....Point of Vertical Tangency	WUS.....Waters of the United States
	R .....Radius	W.V.....Water Valve
	R.F.....Rock Fragments	
	RT .....Right	

# CONVENTIONAL SIGNS

PROPOSED MEDIAN BARRIER .....		PROPOSED PIPE / CULVERT .....	
ELECTRICAL HAND BOX – SIGNALS .....		EXISTING PIPE / CULVERT .....	
FLOW LINE .....		EXISTING DROP INLET .....	
STATE, COUNTY OR CITY LINES .....		UTILITY POLE .....	
PROPOSED TRAFFIC BARRIER .....		WETLAND .....	
EXISTING TRAFFIC BARRIER .....		WETLAND BUFFER .....	
PROPOSED FENCE LINE .....		WATERS OF THE U.S. ....	
EXISTING FENCE LINE .....		HEDGE /TREE LINE .....	
RIGHT OF WAY LINE .....		DECIDUOUS TREE.....	
EXISTING ROADWAY .....		CONIFEROUS TREE .....	
RAILROAD .....		GROUND ELEVATION .....	
BASE LINE OR SURVEY LINE .....		GRADE ELEVATION .....	
FIRE HYDRANT .....			
HISTORIC BOUNDARY .....			
WATERS OF THE U.S. ....			
WETLAND BOUNDARY .....			

# GENERAL NOTES

- THIS PROJECT WAS DESIGNED IN ACCORDANCE WITH THE 2012 PUBLICATION OF AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS (AASHTO) "GUIDE FOR THE DEVELOPMENT OF BICYCLE FACILITIES" AND THE 2015 MARYLAND STATE HIGHWAY ADMINISTRATION BICYCLE POLICY AND DESIGN GUIDELINES.
- ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE MARYLAND STATE HIGHWAY ADMINISTRATION'S STANDARD SPECIFICATIONS FOR CONSTRUCTION AND MATERIALS AND BOOK OF STANDARDS FOR HIGHWAYS & INCIDENTAL STRUCTURES, AND THE MARYLAND MUTCD.
- LIMITED TOPOGRAPHIC AND PROPERTY SURVEYS WERE COMPLETED BY CDDI IN DECEMBER 2022. HORIZONTAL DATUM IS BASED ON NAD 83/2011 AND VERTICAL DATUM IS BASED ON NAVD 88.
- CALL "MISS UTILITY" AT 1-800-257-7777, 48 HOURS PRIOR TO THE START OF WORK. THE EXCAVATOR MUST NOTIFY ALL PUBLIC UTILITY COMPANIES WITH UNDERGROUND FACILITIES IN THE AREA OF PROPOSED EXCAVATION AND HAVE THOSE FACILITIES LOCATED BY THE UTILITY COMPANIES PRIOR TO COMMENCING EXCAVATION.
- REPAIRS TO UTILITIES OR PROPERTY DAMAGE AS A RESULT OF THE CONTRACTOR'S NEGLIGENCE OR METHOD OF OPERATION SHALL BE MADE AT THE CONTRACTOR'S EXPENSE BEFORE PROCEEDING WITH CONSTRUCTION.
- THE CONTRACTOR SHALL MAINTAIN PEDESTRIAN AND VEHICULAR ACCESS TO ALL PROPERTIES WITHIN THE PROJECT LIMITS AND SHALL COORDINATE WITH PROPERTY OWNERS TO MAINTAIN INGRESS/EGRESS DURING THE ENTRIE PERIOD OF CONSTRUCTION.
- RIGHT OF WAY AND EASEMENT LINES SHOWN ON THESE PLANS ARE FOR ASSISTANCE IN INTERPRETING THE PLANS.
- THE LOCATION OF UTILITIES SHOWN ON THE PLANS ARE FOR INFORMATION AND GUIDANCE ONLY. NO GUARANTEE IS MADE OF THE ACCURACY OF SAID LOCATIONS.
- THE DESIGN OF THIS PROJECT HAS INCORPORATED FACILITIES TO ACCOMMODATE PERSONS WITH DISABILITIES IN COMPLIANCE WITH STATE AND FEDERAL REQUIREMENTS.

CITY OF TAKOMA PARK  
NEW AVE BIKEWAY  
SECTION D  
DISTRICT CONNECTOR

## NOTES AND ABBREVIATIONS SHEET

SCALE	NTS	DATE	MAY 2023	CONTRACT NO.	T.B.D.
DESIGNED BY	AMA	COUNTY	MONTGOMERY		
DRAWN BY	AMA	LOGMILE			
CHECKED BY	RJG				
F.A.P. NO.	T.B.D.				
DRAWING NO.	AB 01	SHEET NO.	2	OF	09



P: 410.728.2900  
700 East Pratt Street, Suite 500 | Baltimore, MD 21202

Engineers | Construction Managers | Planners | Scientists  
www.rkk.com

Responsive People | Creative Solutions

BY: aagular -



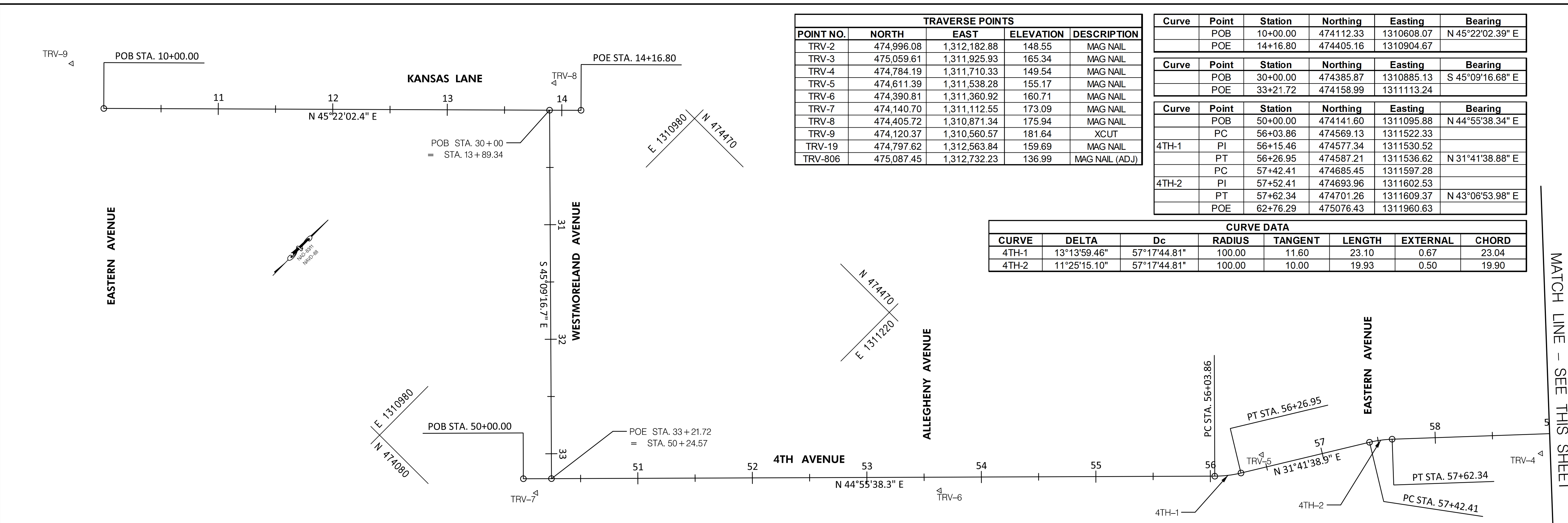
TRAVERSE POINTS				
POINT NO.	NORTH	EAST	ELEVATION	DESCRIPTION
TRV-2	474,996.08	1,312,182.88	148.55	MAG NAIL
TRV-3	475,059.61	1,311,925.93	165.34	MAG NAIL
TRV-4	474,784.19	1,311,710.33	149.54	MAG NAIL
TRV-5	474,611.39	1,311,538.28	155.17	MAG NAIL
TRV-6	474,390.81	1,311,360.92	160.71	MAG NAIL
TRV-7	474,140.70	1,311,112.55	173.09	MAG NAIL
TRV-8	474,405.72	1,310,871.34	175.94	MAG NAIL
TRV-9	474,120.37	1,310,560.57	181.64	XCLT
TRV-19	474,797.62	1,312,563.84	159.69	MAG NAIL
TRV-806	475,087.45	1,312,732.23	136.99	MAG NAIL (ADJ)

Curve	Point	Station	Northing	Easting	Bearing
	POB	10+00.00	474112.33	1310608.07	N 45°22'02.39" E
	POE	14+16.80	474405.16	1310904.67	

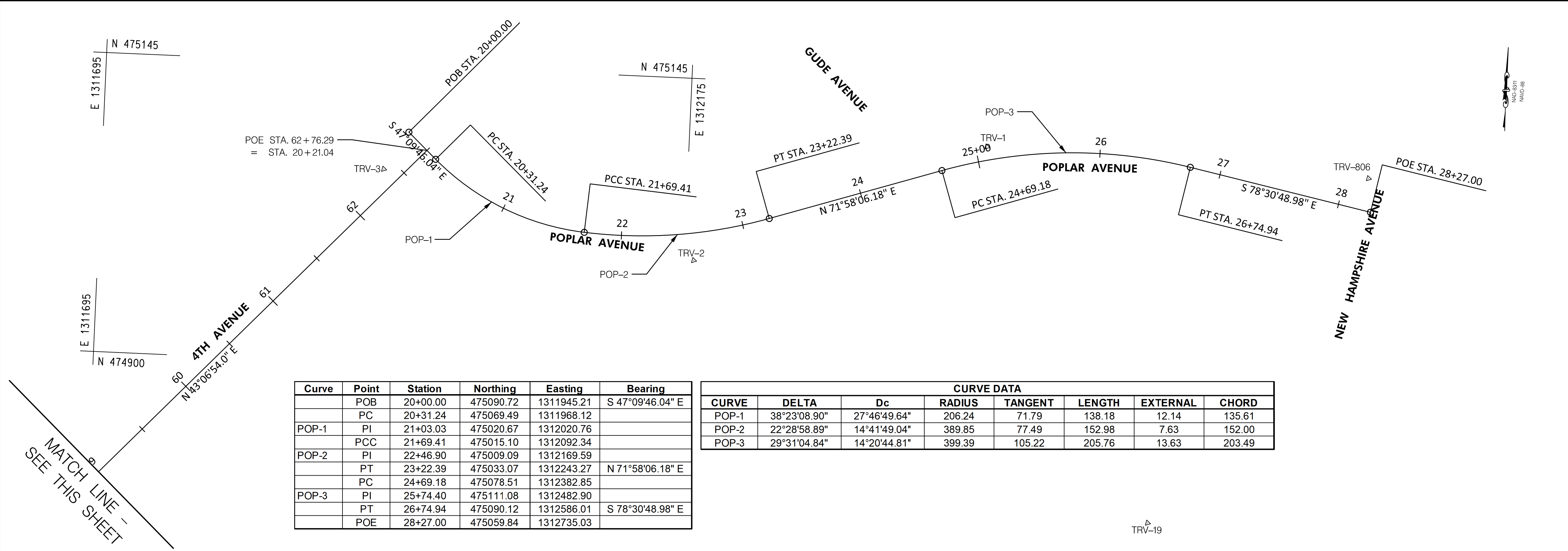
Curve	Point	Station	Northing	Easting	Bearing
	POB	30+00.00	474385.87	1310885.13	S 45°09'16.68" E
	POE	33+21.72	474158.99	1311113.24	

Curve	Point	Station	Northing	Easting	Bearing
	POB	50+00.00	474141.60	1311095.88	N 44°55'38.34" E
	PC	56+03.86	474569.13	1311522.33	
4TH-1	PI	56+15.46	474577.34	1311530.52	
	PT	56+26.95	474587.21	1311536.62	N 31°41'38.88" E
	PC	57+42.41	474685.45	1311597.28	
4TH-2	PI	57+52.41	474693.96	1311602.53	
	PT	57+62.34	474701.26	1311609.37	N 43°06'53.98" E
	POE	62+76.29	475076.43	1311960.63	

CURVE DATA							
CURVE	DELTA	Dc	RADIUS	TANGENT	LENGTH	EXTERNAL	CHORD
4TH-1	13°13'59.46"	57°17'44.81"	100.00	11.60	23.10	0.67	23.04
4TH-2	11°25'15.10"	57°17'44.81"	100.00	10.00	19.93	0.50	19.90



MATCH LINE - SEE THIS SHEET

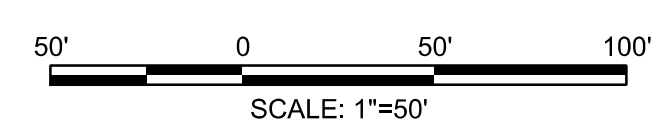


Curve	Point	Station	Northing	Easting	Bearing
	POB	20+00.00	475090.72	1311945.21	S 47°09'46.04" E
	PC	20+31.24	475069.49	1311968.12	
POP-1	PI	21+03.03	475020.67	1312020.76	
	PCC	21+69.41	475015.10	1312092.34	
POP-2	PI	22+46.90	475009.09	1312169.59	
	PT	23+22.39	475033.07	1312243.27	N 71°58'06.18" E
	PC	24+69.18	475078.51	1312382.85	
POP-3	PI	25+74.40	475111.08	1312482.90	
	PT	26+74.94	475090.12	1312586.01	S 78°30'48.98" E
	POE	28+27.00	475059.84	1312735.03	

CURVE DATA							
CURVE	DELTA	Dc	RADIUS	TANGENT	LENGTH	EXTERNAL	CHORD
POP-1	38°23'08.90"	27°46'49.64"	206.24	71.79	138.18	12.14	135.61
POP-2	22°28'58.89"	14°41'49.04"	389.85	77.49	152.98	7.63	152.00
POP-3	29°31'04.84"	14°20'44.81"	399.39	105.22	205.76	13.63	203.49

CITY OF TAKOMA PARK  
NEW AVE BIKEWAY  
SECTION D  
DISTRICT CONNECTOR

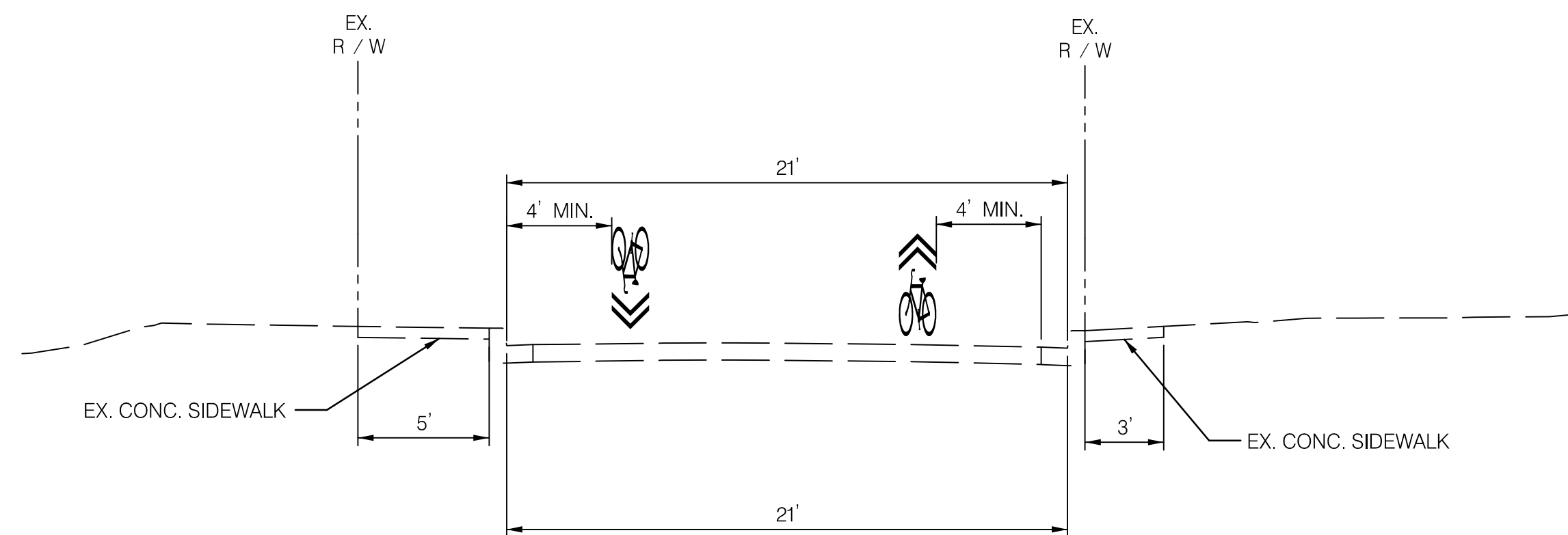
**RK&K**  
P: 410.728.2900  
700 East Pratt Street, Suite 500 | Baltimore, MD 21202  
Engineers | Construction Managers | Planners | Scientists  
www.rkk.com  
Responsive People | Creative Solutions



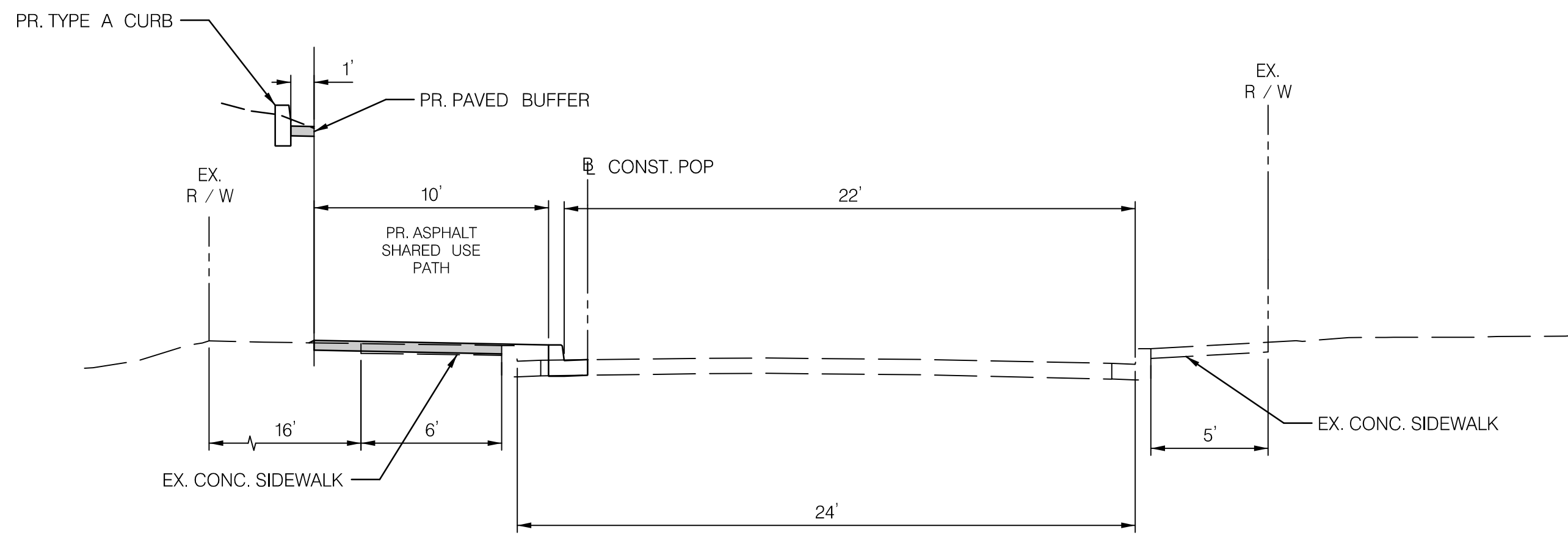
GEOMETRY SHEET	
SCALE 1"=50'	DATE MAY 2023 CONTRACT NO. T.B.D.
DESIGNED BY AMA	COUNTY MONTGOMERY
DRAWN BY AMA	LOGMILE
CHECKED BY RJG	
F.A.P. NO. T.B.D.	
DRAWING NO. GS-01	SHEET NO. 03 OF 09

PLOTTED: 5/3/2023  
FILE: \\ad.rkk.com\file\Cloud\Projects\2021\12\1270\_OGTL\Task 4.2 - Takoma Park New Ave D\CADD\Plan\PGS-0001\_NewAveD.dgn

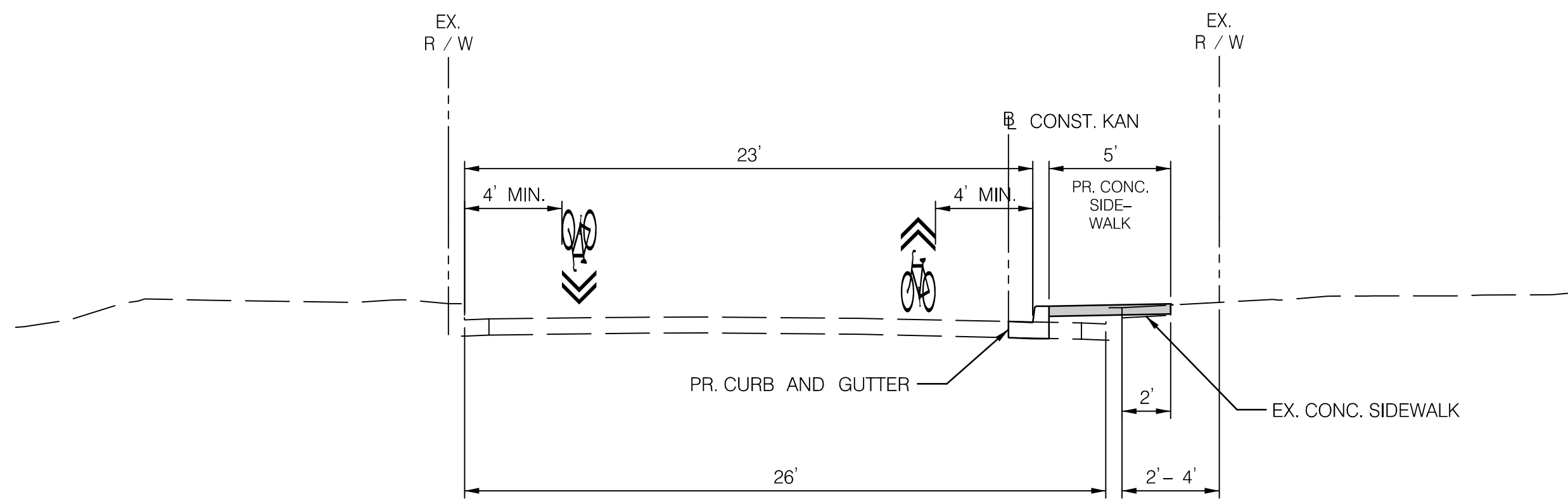
BY: aguilan -



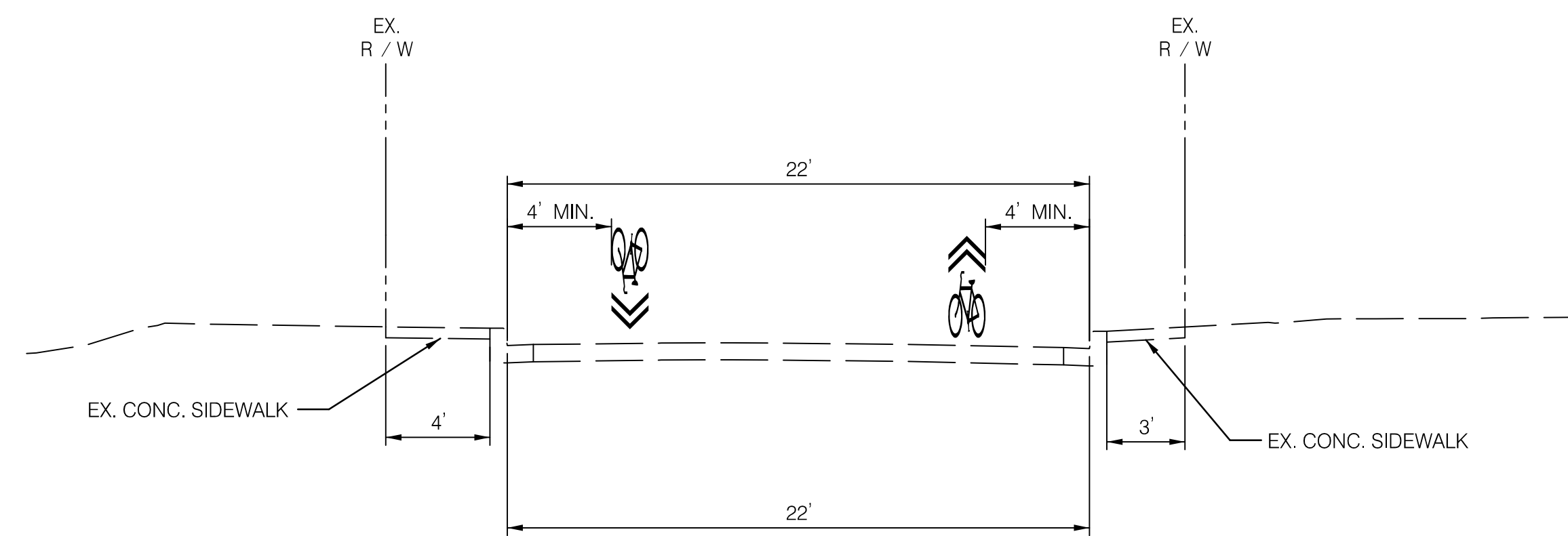
**WESTMORELAND AVENUE**  
FROM KANSAS LANE TO 4TH AVENUE



**POPLAR AVENUE**  
FROM 4TH AVENUE TO NEW HAMPSHIRE AVENUE



**KANSAS LANE**  
FROM EASTERN AVENUE TO WESTMORELAND AVENUE



**4TH AVENUE**  
FROM WESTMORELAND AVENUE TO POPLAR AVENUE

NOTES:

1. LOCATION OF PROPOSED SHARROW MARKINGS AND BIKE ROUTE SIGNS ARE AS SHOWN ON PLAN SHEETS HD-01 TO HD-05.

**CITY OF TAKOMA PARK**  
**NEW AVE BIKEWAY**  
**SECTION D**  
**DISTRICT CONNECTOR**

**TYPICAL SECTIONS**

SCALE 1"=5' DATE MAY 2023 CONTRACT NO. T.B.D.

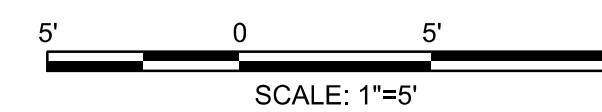
DESIGNED BY AMA COUNTY MONTGOMERY

DRAWN BY AMA LOGMILE

CHECKED BY RJG

F.A.P. NO. T.B.D.

DRAWING NO. HT-01 SHEET NO. 04 OF 09



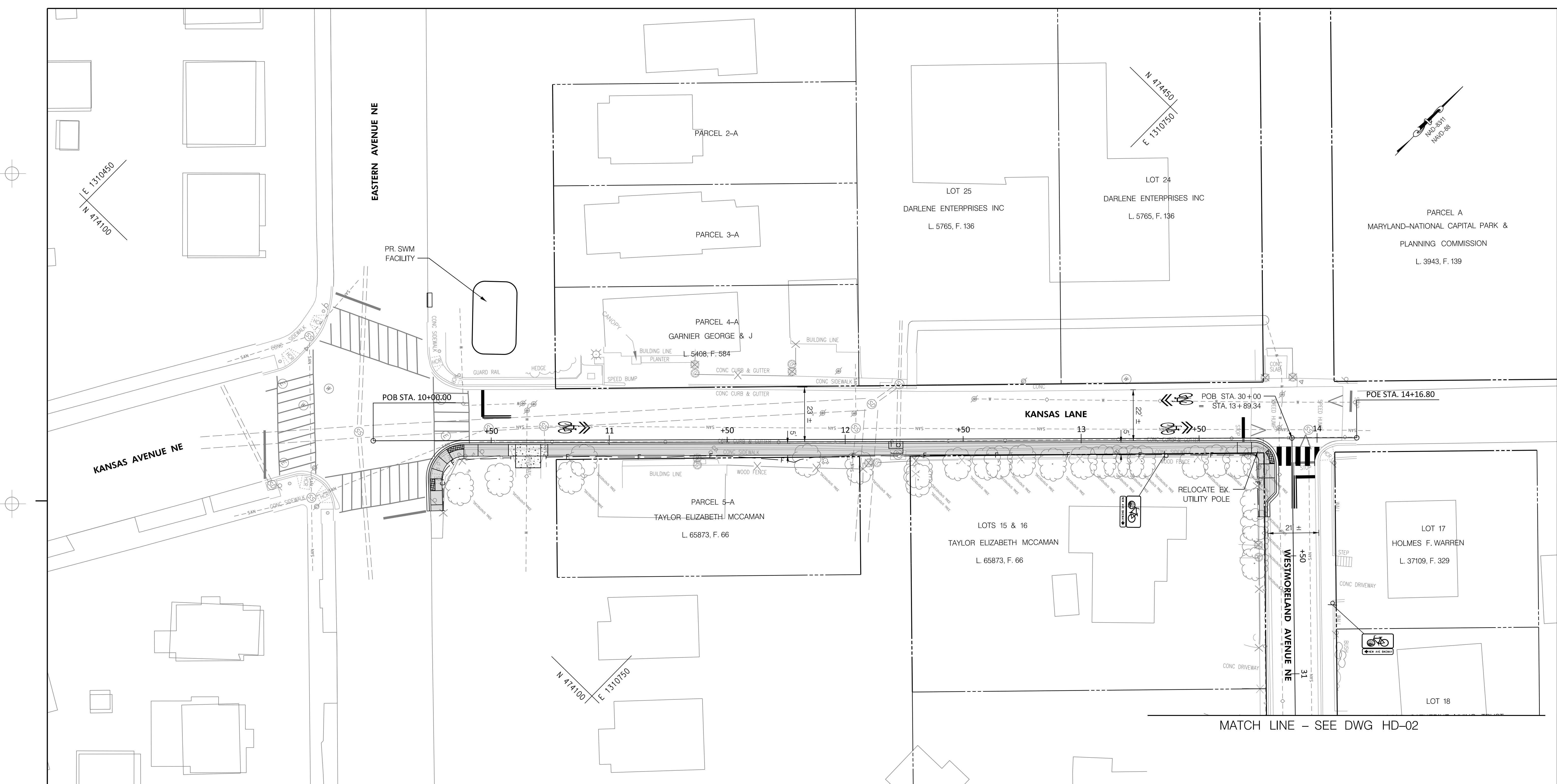
P: 410.728.2900  
700 East Pratt Street, Suite 500 | Baltimore, MD 21202

Engineers | Construction Managers | Planners | Scientists  
www.rkk.com

Responsive People | Creative Solutions

BY: aguilera -



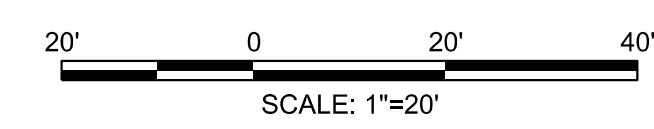


MATCH LINE - SEE DWG HD-02

**LEGEND:**

	PROPOSED CONCRETE SIDEWALK
	PROPOSED ASPHALT SHARED USE PATH
	PROPOSED CONCRETE DRIVEWAY APRON
	TREE TO BE REMOVED
	PROPOSED BIKE SHARROW MARKINGS
	PROPOSED BIKE ROUTE SIGN
	PROPOSED HIGH VISIBILITY CONTINENTAL STYLE CROSSWALK

**RK&K**  
 P: 410.728.2900  
 700 East Pratt Street, Suite 500 | Baltimore, MD 21202  
 Engineers | Construction Managers | Planners | Scientists  
 www.rk.com  
 Responsive People | Creative Solutions



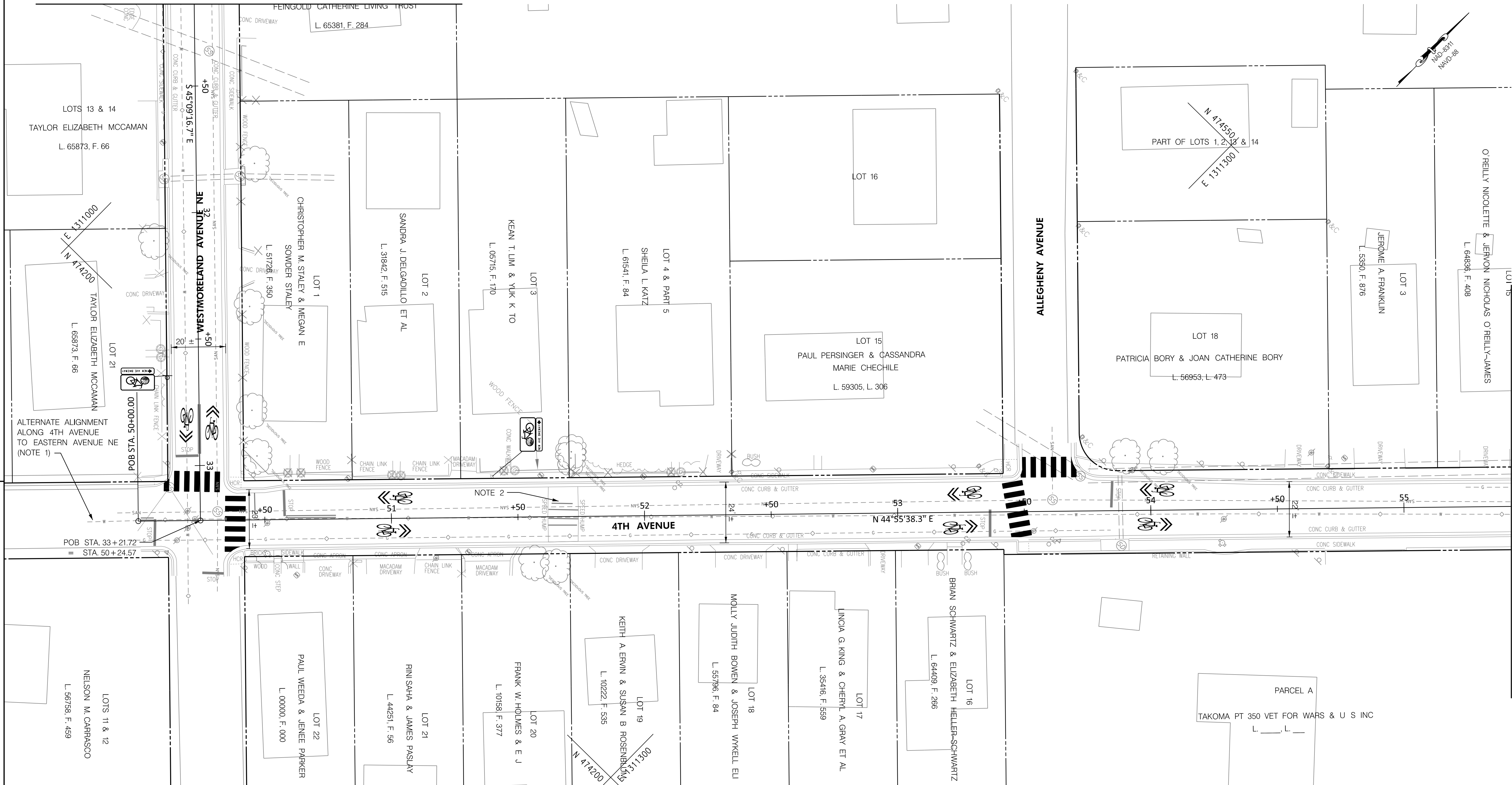
**CITY OF TAKOMA PARK**  
**NEW AVE BIKEWAY**  
**SECTION D**  
**DISTRICT CONNECTOR**

ROADWAY PLAN	
SCALE	1"=20' DATE MAY 2023 CONTRACT NO. T.B.D.
DESIGNED BY	AMA COUNTY MONTGOMERY
DRAWN BY	AMA LOGMILE
CHECKED BY	RJG
F.A.P. NO.	T.B.D.
DRAWING NO.	HD-01 SHEET NO. 05 OF 09

PLOTTED: 5/25/2023  
 FILE: \\ad.rk.com\ts\Cloud\Projects\2021\21270\_OGTL\Task 4.2 - Takoma Park New Ave D\CADD\Plan\PHD-0001\_NewAveD.dgn

BY: tboecher -

MATCH LINE - SEE DWG HD-01

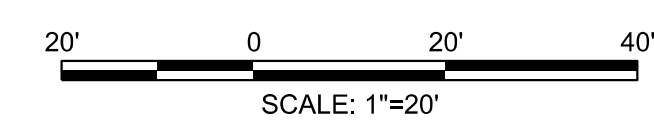


MATCH LINE - SEE DWG HD-03

**LEGEND:**

	PROPOSED CONCRETE SIDEWALK
	PROPOSED ASPHALT SHARED USE PATH
	PROPOSED CONCRETE DRIVEWAY APRON
	TREE TO BE REMOVED
	PROPOSED BIKE SHARROW MARKINGS
	PROPOSED BIKE ROUTE SIGN
	PROPOSED HIGH VISIBILITY CONTINENTAL STYLE CROSSWALK

- NOTES:**
- ALTERNATE ALIGNMENT FOR CONSIDERATION: EXTEND BIKEWAY ALONG 4TH AVENUE FROM WESTMORELAND AVENUE NE, WEST TO THE INTERSECTION OF EASTERN AVENUE NE AND TIE-INTO THE DISCTRICT DOT'S PROPOSED MULTI-MODAL IMPROVEMENTS.
  - REPLACE TAKOMA PARK STD. SPEED HUMPS WITH MONTGOMERY COUNTY STD. SPEED HUMPS.

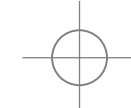


<b>CITY OF TAKOMA PARK</b>	
NEW AVE BIKEWAY SECTION D DISTRICT CONNECTOR	
<b>ROADWAY PLAN</b>	
SCALE	1"=20' DATE MAY 2023 CONTRACT NO. T.B.D.
DESIGNED BY	AMA COUNTY MONTGOMERY
DRAWN BY	AMA LOGMILE
CHECKED BY	RJG
F.A.P. NO.	T.B.D.
DRAWING NO.	HD-02 SHEET NO. 06 OF 09

**RK&K**  
P: 410.728.2900  
700 East Pratt Street, Suite 500 | Baltimore, MD 21202  
Engineers | Construction Managers | Planners | Scientists  
www.rk.com  
Responsive People | Creative Solutions

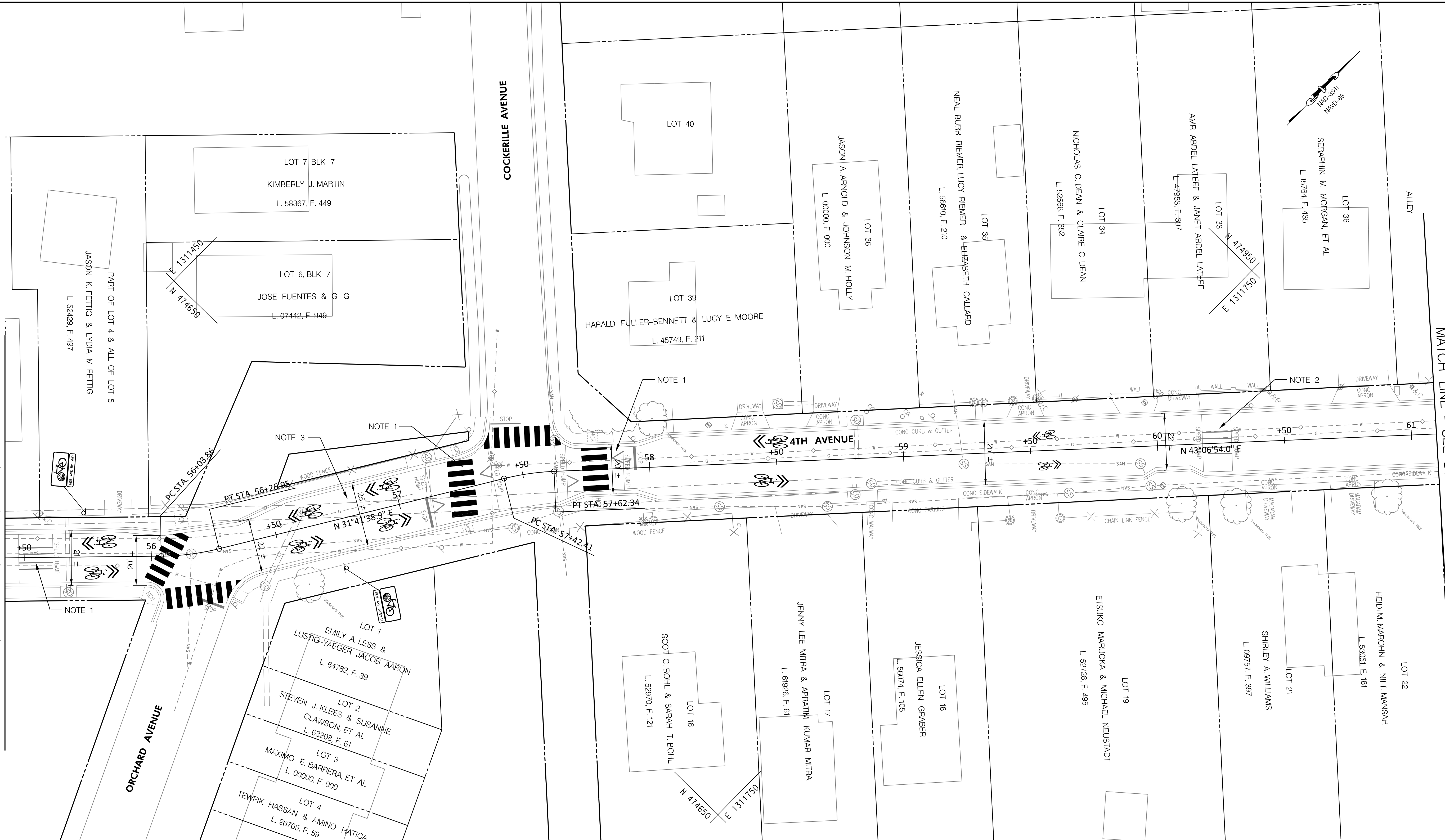
BY: tboecher -





MATCH LINE - SEE DWG HD-02

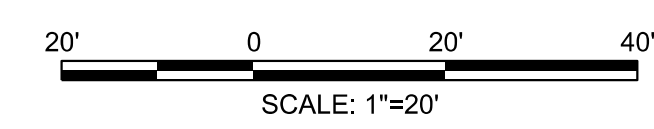
MATCH LINE - SEE DWG HD-04



**LEGEND:**

	PROPOSED CONCRETE SIDEWALK
	PROPOSED ASPHALT SHARED USE PATH
	PROPOSED CONCRETE DRIVEWAY APRON
	TREE TO BE REMOVED
	PROPOSED BIKE SHARROW MARKINGS
	PROPOSED BIKE ROUTE SIGN
	PROPOSED HIGH VISIBILITY CONTINENTAL STYLE CROSSWALK

- NOTES:**
- MONTGOMERY COUNTY STD. SPEED HUMPS TO REMAIN.
  - REPLACE TAKOMA PARK STD. SPEED HUMPS WITH MONTGOMERY COUNTY STD. SPEED HUMPS.
  - CONSIDER EXTENDING WESTBOUND CURB SOUTH TO REDUCE ROADWAY WIDTH TO 22 FEET ALONG 4TH AVENUE BETWEEN COCKERILLE AVENUE AND ORCHARD AVENUE. THIS WILL REQUIRE MODIFICATION TO THE EXISTING SPEED HUMPS AND INLET STRUCTURE.



**CITY OF TAKOMA PARK  
NEW AVE BIKEWAY  
SECTION D  
DISTRICT CONNECTOR**

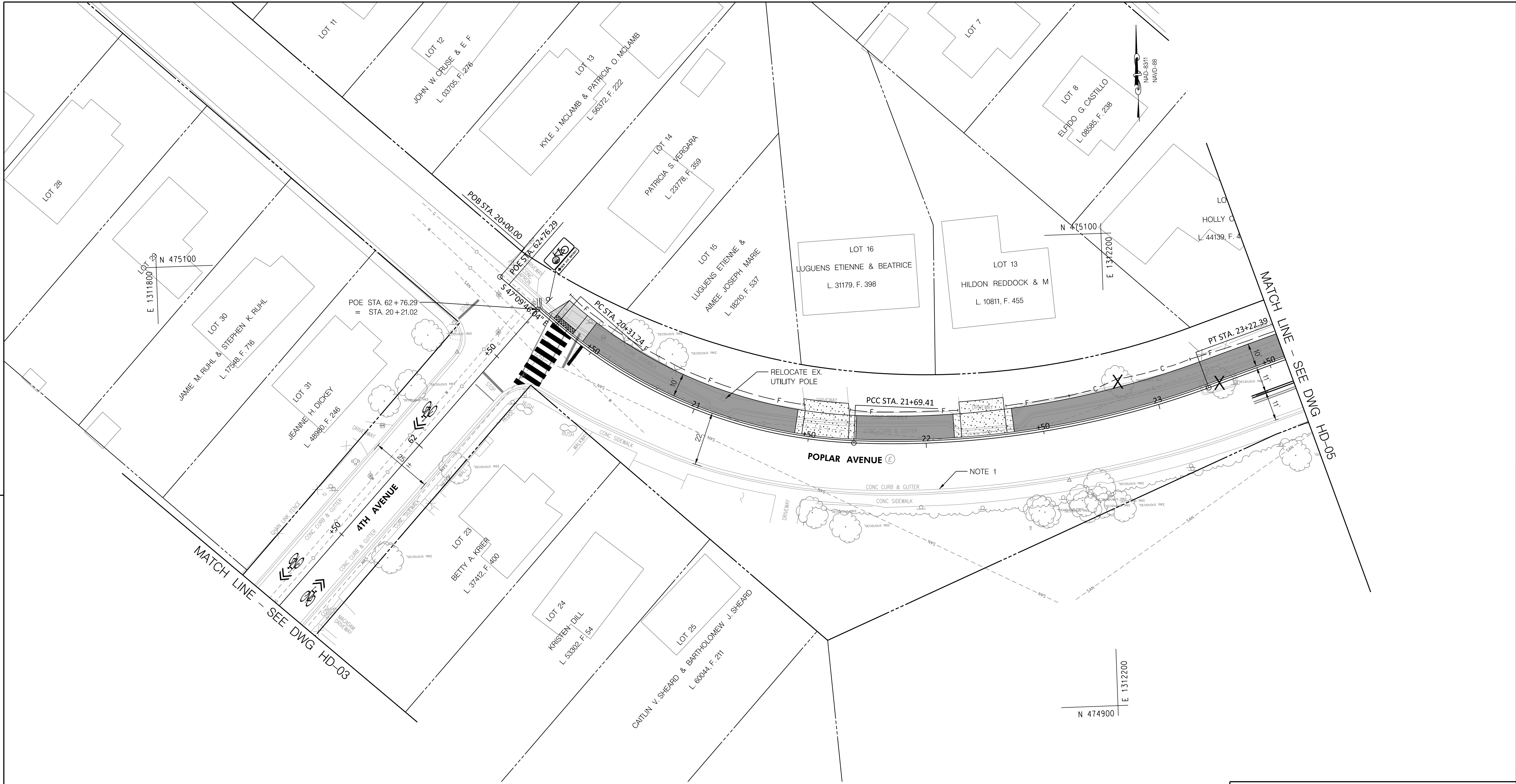
**ROADWAY PLAN**

SCALE	1"=20'	DATE	MAY 2023	CONTRACT NO.	T.B.D.
DESIGNED BY	AMA	COUNTY	MONTGOMERY		
DRAWN BY	AMA	LOGMILE			
CHECKED BY	RJG				
F.A.P. NO.	T.B.D.				
DRAWING NO.	HD-03	SHEET NO.	07	OF	09

**RK&K**  
 P: 410.728.2900  
 700 East Pratt Street, Suite 500 | Baltimore, MD 21202  
 Engineers | Construction Managers | Planners | Scientists  
 www.rkk.com  
 Responsive People | Creative Solutions

PLOTTED: 5/25/2023  
 FILE: \\ad.rkk.com\its\Cloud\Projects\2021\1270\_OGTL\Task 4.2 - Takoma Park New Ave D\CADD\Plan\PHD-0003\_NewAveD.dgn





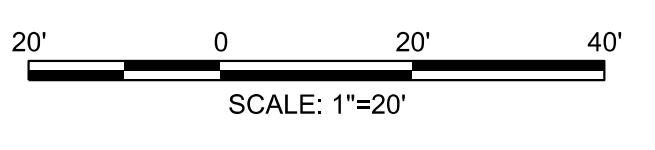
MATCH LINE - SEE DWG HD-03

MATCH LINE - SEE DWG HD-05

**LEGEND:**

	PROPOSED CONCRETE SIDEWALK
	PROPOSED ASPHALT SHARED USE PATH
	PROPOSED CONCRETE DRIVEWAY APRON
	TREE TO BE REMOVED
	PROPOSED BIKE SHARROW MARKINGS
	PROPOSED BIKE ROUTE SIGN
	PROPOSED HIGH VISIBILITY CONTINENTAL STYLE CROSSWALK

**NOTE:**  
 1. PROHIBIT PARKING ON SOUTH SIDE OF POPLAR AVENUE FROM 4TH AVENUE TO NEW HAMPSHIRE AVENUE.



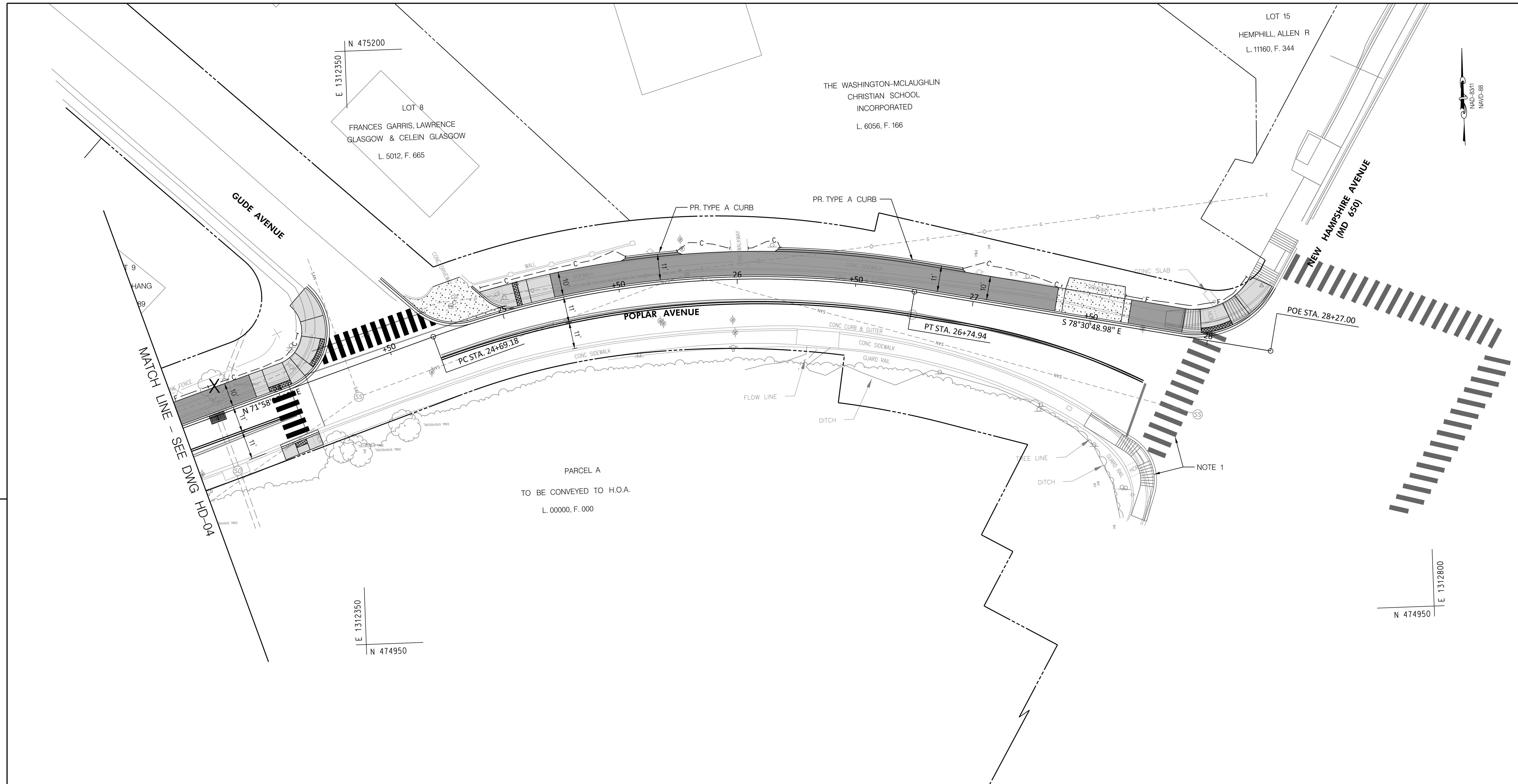
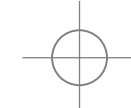
**CITY OF TAKOMA PARK  
 NEW AVE BIKEWAY  
 SECTION D  
 DISTRICT CONNECTOR**

ROADWAY PLAN	
SCALE	1"=20' DATE MAY 2023 CONTRACT NO. T.B.D.
DESIGNED BY	AMA COUNTY MONTGOMERY
DRAWN BY	AMA LOGMILE
CHECKED BY	RJG
F.A.P. NO.	T.B.D.
DRAWING NO.	HD-04 SHEET NO. 08 OF 09

**RK&K**  
 P: 410.728.2900  
 700 East Pratt Street, Suite 500 | Baltimore, MD 21202  
 Engineers | Construction Managers | Planners | Scientists  
 www.rk.com  
 Responsive People | Creative Solutions

BY: tboecher -





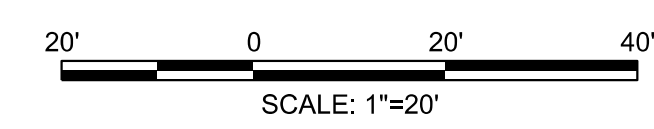
BY: tboecher -

**RK&K**  
 P: 410.728.2900  
 700 East Pratt Street, Suite 500 | Baltimore, MD 21202  
 Engineers | Construction Managers | Planners | Scientists  
 www.rkk.com  
 Responsive People | Creative Solutions

**LEGEND:**

	PROPOSED CONCRETE SIDEWALK
	PROPOSED ASPHALT SHARED USE PATH
	PROPOSED CONCRETE DRIVEWAY APRON
	TREE TO BE REMOVED
	PROPOSED BIKE SHARROW MARKINGS
	PROPOSED BIKE ROUTE SIGN
	PROPOSED HIGH VISIBILITY CONTINENTAL STYLE CROSSWALK

**NOTE:**  
 1. CURB EXTENSION AND CONTINENTAL STYLE CROSSWALK MARKINGS SHOWN ARE PROPOSED BY THE CITY OF TAKOMA PARK'S NEW AVE BIKEWAY SECTION B IMPROVEMENTS.



**CITY OF TAKOMA PARK  
 NEW AVE BIKEWAY  
 SECTION D  
 DISTRICT CONNECTOR**

ROADWAY PLAN			
SCALE	1"=20'	DATE	MAY 2023
CONTRACT NO.	T.B.D.	DESIGNED BY	AMA
COUNTY	MONTGOMERY	DRAWN BY	AMA
LOGMILE		CHECKED BY	RJG
		F.A.P. NO.	T.B.D.
DRAWING NO.	HD-05	SHEET NO.	09 OF 09

## **APPENDIX C**

### **Preliminary Construction Estimate**

PRELIMINARY ENGINEER'S ESTIMATE



DATE: May 2023

ITEM	MDOT SHA CCS	ITEM DESCRIPTION	QUANTITY	UNITS	UNIT PRICE	TOTAL ESTIMATE
101	110100	CLEARING AND GRUBBING	1	LS	\$5,000.00	\$5,000.00
102	130875	MOBILIZATION AND DEMOBILIZATION	1	LS	\$28,000.00	\$28,000.00
103	130840	CONSTRUCTION STAKEOUT	1	LS	\$10,000.00	\$10,000.00
104	120500	MAINTENANCE OF TRAFFIC	1	LS	\$30,000.00	\$30,000.00
105	120784	TEMPORARY ORANGE CONSTRUCTION FENCE	1,000	LF	\$3.50	\$3,500.00
106	100000	TREE PROTECTION FENCING (CONTINGENT)	600	LF	\$6.00	\$3,600.00
<b>SUBTOTAL CATEGORY 1</b>						<b>\$80,100.00</b>
201	201030	CLASS 1 EXCAVATION	292	CY	\$75.00	\$21,930.56
202	201031	CLASS 1 -A EXCAVATION (CONTINGENT)	30	CY	\$90.00	\$2,700.00
203	202050	SELECT BORROW FOR CLASS 1-A EXCAVATION (CONTINGENT)	30	CY	\$70.00	\$2,100.00
204	202065	COMMON BORROW	199	CY	\$40.00	\$7,960.00
205	203030	TEST PIT EXCAVATION	10	CY	\$160.00	\$1,600.00
<b>SUBTOTAL CATEGORY 2</b>						<b>\$36,290.56</b>
301	302418	18 INCH REINFORCED CONCRETE PIPE, CLASS IV	16	LF	\$100.00	\$1,600.00
302	374005	STANDARD 5 FT COG INLET-MINIMUM DEPTH	1	EA	\$8,000.00	\$8,000.00
303	374100	5 FOOT COG/COS OPENING	1	EA	\$7,000.00	\$7,000.00
304	378175	STANDARD SINGLE OPENING TYPE K INLET OPEN END GRATE - MINIMUM DEPTH	1	EA	\$4,000.00	\$4,000.00
305	379120	STANDARD TYPE S INLET, DOUBLE GRATE TANDEM - MINIMUM DEPTH	1	EA	\$6,000.00	\$6,000.00
306	390620	NO. 7 AGGREGATE FOR STORMWATER MANAGEMENT FACILITIES	10	CY	\$110.00	\$1,100.00
307	390630	NO. 57 AGGREGATE FOR STORMWATER MANAGEMENT FACILITIES	40	CY	\$100.00	\$4,000.00
308	390650	COARSE SAND FOR STORMWATER MANAGEMENT FACILITIES	10	CY	\$130.00	\$1,300.00
309	390660	BIORETENTION SOIL MIX	50	CY	\$120.00	\$6,000.00
310	390665	STORMWATER MANAGEMENT FACILITY AS-BUILT CERTIFICATION	1	LS	\$5,000.00	\$5,000.00
<b>SUBTOTAL CATEGORY 3</b>						<b>\$44,000.00</b>
501	504500	SUPERPAVE ASPHALT MIX 9.5mm FOR SURFACE, PG 64S-22, LEVEL 2	48	TON	\$200.00	\$9,699.97
502	504560	SUPERPAVE ASPHALT MIX 19.0mm FOR BASE, PG 64S-22, LEVEL 2	82	TON	\$250.00	\$20,537.08
503	520111	4 INCH GRADED AGGREGATE BASE COURSE	959	SY	\$14.00	\$13,429.11
504	549603	5 INCH YELLOW PREFORMED THERMOPLASTIC PAVEMENT MARKINGS	786	LF	\$4.00	\$3,144.00
505	549609	12 INCH WHITE PREFORMED THERMOPLASTIC PAVEMENT MARKINGS	191	LF	\$15.00	\$2,865.00
506	549417	16 INCH WHITE PREFORMED THERMOPLASTIC PAVEMENT MARKING LINES	39	LF	\$15.00	\$585.00
507	549617	24 INCH WHITE PREFORMED THERMOPLASTIC PAVEMENT MARKING LINES	216	LF	\$22.00	\$4,752.00
508	549620	WHITE PREFORMED THERMOPLASTIC PAVEMENT MARKING LEGENDS AND SYMBOLS	216	SF	\$30.00	\$6,480.00
509	561119	6 INCH PORTLAND CEMENT CONCRETE PAVEMENT FOR DRIVEWAY MIX 9	186	SY	\$190.00	\$35,382.22
<b>SUBTOTAL CATEGORY 5</b>						<b>\$96,874.38</b>
601	634204	TYPE A CURB ANY HEIGHT OR DEPTH	100	LF	\$120.00	\$12,000.00
602	634301	STD. TYPE A COMBINATION CURB AND GUTTER, 12 INCH GUTTER PAN 8 INCH MINIMUM DEPTH	1,091	LF	\$38.00	\$41,458.00
603	634331	STD. TYPE C COMBINATION CURB AND GUTTER, 12 INCH GUTTER PAN 8 INCH MINIMUM DEPTH	153	LF	\$35.00	\$5,355.00
604	655104	5 INCH CONCRETE SIDEWALK	3,372	SF	\$8.00	\$26,976.00
605	655120	DETECTABLE WARNING SURFACE FOR CURB RAMPS	177	SF	\$34.00	\$6,018.00
606	600000	POROUS FLEXIPAVE SIDEWALK (CONTINGENT)	200	SF	\$32.00	\$6,400.00
<b>SUBTOTAL CATEGORY 6</b>						<b>\$86,207.00</b>
701	704345	PLACING FURNISHED TOPSOIL 4 INCH DEPTH	147	SY	\$8.00	\$1,178.67
702	705500	TURFGRASS ESTABLISHMENT	147	SY	\$8.00	\$1,178.67
703	700000	ROOT ZONE PRUNING (CONTINGENT)	150	LF	\$25.00	\$3,750.00
<b>SUBTOTAL CATEGORY 7</b>						<b>\$6,107.33</b>
801	801130	SQUARE PERFORATED TUBULAR STEEL SIGN POSTS	5	EA	\$200.00	\$1,000.00
802	801135	SQUARE TUBULAR STEEL ANCHOR BASES	5	EA	\$200.00	\$1,000.00
803	801605	SHEET ALUMINUM SIGNS	20	SF	\$100.00	\$1,983.33
<b>SUBTOTAL CATEGORY 8</b>						<b>\$3,983.33</b>
<b>SUB-TOTAL (CAT. 1 THRU 8)</b>						<b>\$353,562.61</b>
<b>30% CONTINGENCY</b>						<b>\$106,068.78</b>
<b>UTILITY RELOCATIONS (6% OF CAT. 1 THRU 8)</b>						<b>\$21,213.76</b>
<b>TOTAL CONSTRUCTION COST</b>						<b>\$480,845.14</b>

ASSUMPTIONS / EXCLUSIONS:

- Utility impacts and costs will need to be verified during detailed design.
- Right of Way Acquisitions are not anticipated and therefore costs are excluded. Right of Entry Agreements may be required.
- Root Zone Pruning, Tree Protection Fencing and Porous Flexible Sidewalk are contingent items and will be used as directed by the City Arborist.

## **APPENDIX D**

### **Preliminary Agency and Community Comments, Responses**



## New Ave Bikeway – Section D Community Route Walk

December 10, 2022 @ 1:00pm

### Attendees:

- Alex Freedman (Host, City of Takoma Park)
- Randy Gibson (Councilmember, Ward 3)
- Cindy Dyballa (Councilmember, Ward 2)
- Paul Weeda (Ward 3)
- Jim Hahn (Ward 2)
- Heather Hahn (Ward 2)
- Ashley Brookshier (Ward 3)
- Lori Bowes (Ward 5)
- Neal Riemer (Ward 3)

### Feedback: *(RK&K's responses in blue text)*

1. Mixed reactions about the utilization of the M-NCPPC conservation land –
  - Some were interested in exploring that option, because it would be less disruptive to the neighborhood and offer a good connection to the environment, including what appears to be an access point on via Cockerille Ave to 4<sup>th</sup> Ave.
  - Most were not interested in the added cost, engineering challenges, permitting challenges, and expanded timeline of trying to negotiate with M-NCPPC → “Don’t let perfect be the enemy of the good.”

**Response: One of the main reasons for selecting Option #1 was to avoid impacts to M-NCPPC property, which as noted, would include significant added costs and timeline for design and permitting approvals to mitigate environmental (forest stand and Takoma Branch stream valley) and utility impacts.**

2. Suggestion that the north side of Poplar might be the more useful side to have facilities on. – **Response: We concur and this is in agreement with our preliminary field review. We will further evaluate during preliminary design.**
3. Interest in seeing separate walking and biking facilities, when combined into a single sidewalk/trail, if space allows. – **Response: Based on very limited right of way through the project corridor, including constraints to maintain existing street parking, etc., we do not anticipate providing separate facilities for walking and biking to be feasible.**
4. Where hardened protective lanes aren’t possible, would some sort of barrier, like bollards or wheel stops be possible? – **Response: This will be investigated further during detailed design; however, there is very limited ROW and roadway width in existing conditions.**
5. Existing sidewalk network through the neighborhood is a little “disjointed” – **Response: This is acknowledged and was observed through our field investigations and may be explained as the City’s best efforts to shoe-horn in sidewalk retrofit improvements on one side of the street or the other where impacts to right of way, utilities, etc. could best be avoided / minimized.**
6. Concern from neighbors (as represented by the one neighbor on the walk) for cut through traffic – **Response: The proposed bikeway improvements will not increase vehicular traffic through the project limits.**

7. Recognition that where 4<sup>th</sup> Ave narrows, there may need to be different infrastructures from the wider sections. – **Response: This was observed from our field investigations. To retrofit the bikeway improvements within the neighborhood while avoiding property and utility impacts and retaining wall construction, we anticipate using sharrows in locations with limited ROW and shared use paths in locations with available ROW.**
8. Orchard & 4<sup>th</sup> Ave and Westmoreland & Kansas are both informal school bus pick-up spots; currently kids just stand, lingering at the corner, for pick-up.- **Response: Both of these locations have existing sidewalk. We can investigate the provision of bus stop pads / wider sidewalk where feasible and where existing right of way permits.**
9. Westmoreland & 4<sup>th</sup> Ave is a tight corner as currently designed; concern that a harder corner may invite a lot of conflict with vehicles. – **Response: We do not anticipate that we will make the curb radii any less at this intersection. We are proposing a sharrow at both legs of this intersection and do not anticipate impacts to the existing curb/sidewalk.**
10. Intersection of Kansas Ln and Westmoreland is challenging: -
  - o Drivers regularly blast through the stop signs on Kansas Ln
  - o There is a blind corner, obscured by fence and evergreen shrubs
  - o The sidewalks on Kansas, between Eastern and Westmoreland are comically bad on both sides, and the non-sidewalks mouth of the parking area on the north side of the street is functionally a gutter, which becomes impassible when it rains.**Response: Kansas Lane has a speed bump installed at this intersection which should prevent vehicles from speeding through this intersection. We will review this speed bump and ensure it meets current City / County standards. Due to limited ROW we do not anticipate the ability to relocate the fence or evergreen shrubs on the southern corner. We observed the same issues with the existing sidewalk along Kansas Lane; the existing “sidewalk” on the east side of Kansas Lane could be widened / retrofitted as a shared use path, but would also require eliminating street parking for this stretch. This will be discussed further with the City to confirm feasibility to eliminate the street parking.**
11. The tour passed two neighbors at two different houses on 4<sup>th</sup> Ave who asked what was going on – both shared excitement about the idea of a bike route along the street. **Great!**
12. There was a general recognition that, from a topography perspective, the route down 4<sup>th</sup> Ave to Westmoreland was the flattest and most viable route. **Response: Comment acknowledged. We will identify on the preliminary design plans a sub-alternate for the bikeway that extends south along 4<sup>th</sup> Avenue to the intersection with Eastern Avenue, where District DOT is planning multi-modal improvements.**
13. Concern that any hardscaping should not negatively impact stormwater issues, or actively help with remediation. – **Response: Concept stormwater design will be performed in conjunction with the proposed improvements. Any necessary stormwater improvements will be established with the proposed design.**
14. General concern was voiced about losing street parking, particularly for houses without off-street driveways. – **Response: This is observed and is one of the reasons why sharrows are being considered through these areas with limited ROW and existing parking.**

Project:	Takoma COGTLC New Ave Section D		
Date:	March 2023		
Reviewer:	City of Takoma Park		
Comment ID	Sheet No. / Drawing No.	Comment	Response
1	HD-01	Can you clarify if the intention is to remove parking on either side of the street? If parking is to be removed from one side or another, there is an interest in removing it from the north side of the street (already limited)	Parking is only available on one side of the street and the intention is to keep this parking. Parking on the other side violates the minimum offsets from crosswalks, driveways, etc.
2	HD-01	There is a utility pole here that currently makes this very ADA in-accessible. Can you confirm in this new design whether this would become ADA accessible?	We are proposing to relocate this utility pole.
3	HD-02	Is it possible to re-design this to be a better speed bump? Right now it has a double-bump that is unpleasant for all users. Are there designs that would be more bike compliant?	We have replaced the Takoma Park standard speed humps with more bike friendly Montgomery County standard speed humps.
4	HD-02	Is there an opportunity to bump out this corner to narrow 4th Ave down to 20 or 22ft?	Based on auto turn analysis it is not recommended to install a speed bum here. A passenger vehicle will be able to navigate the intersection but a SU-40 vehicle will not.
5	HD-03	Is it possible to re-design this to be a better speed bump? Right now it has a double-bump that is unpleasant for all users. Are there designs that would be more bike compliant?	We have replaced the Takoma Park standard speed humps with more bike friendly Montgomery County standard speed humps.
6	HD-03	Is it possible to re-design this to be a better speed bump? Right now it has a double-bump that is unpleasant for all users. Are there designs that would be more bike compliant?	We have replaced the Takoma Park standard speed humps with more bike friendly Montgomery County standard speed humps.
7	HD-03	Is there an opportunity to bump out this corner to narrow 4th Ave down to 20 or 22ft? Maybe even expand the whole curb between this corner and orchard, removing parking?.	Based on auto turn analysis it is not recommended to install a speed bum here. A passenger vehicle will be able to navigate the intersection but a SU-40 vehicle will not.
8	HD-04	Is there an opportunity to bump out this corner to narrow Poplar Ave down to 20 or 22ft?	Based on auto turn analysis it is not recommended to install a speed bum here. A passenger vehicle will be able to navigate the intersection but a SU-40 vehicle will not.
9	HD-04	Can this be turned into a higher-visibility style crosswalk, like a continental design?	Will comply.

10	HD-04	Can you clarify what the intention for parking is on Poplar. Right now it is allowed on the north side and some of the south side. With the extension of the curb on the north side, it seems like maybe parking on the south side will need to be more restricted to certain areas or removed entirely?	We are proposing to remove this parking entirely.
11	HD-05	Is there an opportunity to narrow this whole block of Poplar down to 21 or 22ft?	We have changed the proposed width to 22 feet.
12	HD-05	Is it possible to narrow this roadway opening, perhaps by tightening the southern corner? And then adding a high-visibility crosswalk? If narrowing the opening onto New Hampshire isn't possible, would a pedestrian island here make sense?	Based on auto turn analysis and the proximity to New Hampshire Avenue it is not recommended to modify the intersection any further.
13	HD-05	Is there an opportunity here to combine the storm drain with a landscaped stormwater infiltration structure?	We are proposing to no longer have this structure with the narrowing of the roadway.



Project:	Takoma COGTLC New Ave Section D		
Date:	March 2023		
Reviewer:	MNCPPC		
Comment ID	Sheet No. / Drawing No.	Comment	Response
1	General	Given that the shared use path on Poplar Ave is substandard, that the driveway at the northeast corner of Poplar Ave and Gude Ave creates an additional conflict point that may reduce visibility and that the transition from the shared use path on Poplar Ave to the on-road bikeway on 4th St is a bit awkward, consider converting the Poplar Ave shared use path to a sidewalk and providing an on-street neighborhood greenway on Poplar Ave. To achieve this, the travel speeds on Poplar Ave will need to be reduced with traffic calming.	We do not believe a neighborhood greenway is appropriate on Poplar Ave from Gude Ave to New Hampshire Ave. The MCDOT Bicycle Master Plan states neighborhood greenways should be applied to streets with low volumes (less than 3,000 ADT) and are parallel to major roadways. This street is perpendicular to New Hampshire Ave and it is estimated the ADT is above the minimum threshold. This can be investigated further during subsequent design phases to determine viability of Neighborhood Greenway for this segment.
2	General	In order for the Mandatory Referral process to proceed smoothly, the Applicant should pursue a Forest Conservation Exemption request (if applicable). Projects of this type usually pursue an exemption under 22A(5)(f) - a governmental project reviewed for forest conservation purposes by the State Department of Natural Resources under the Code of Maryland Regulations; or 22A(5)(e) - a State, County, or municipal highway construction activity that is subject to Section 5-103 of the Natural Resources Article of the Maryland Code, or Section 22A-9. All requirements of an exemption for a County or municipal highway construction activity are detailed in Section 22A-6(d) and Section 22A-9;	Will pursue forest conservation exemption during subsequent design phases.
3	General	Although further details will be confirmed at a later stage, please provide as much expected environmental information in the proposal as possible (tree protection measures, tree removals, supplemental/replacement planting, swm, any master plan recommendations, etc).	Tree removals and SWM locations are shown on plans, master plan recommendations are included in report. Additional tree protection details and SWM details will be provided during subsequent design phases.
4	5	The new curb ramp is not oriented perpendicularly to the receiving pad on the east side of Westmorland.	Curb ramp is oriented perpendicular to receiving pad. Do not recommend reconstructing corner and receiving end and increasing LOD.
5	5	If feasible, a 6ft sidewalk along the Kansas Lane roadway would be preferred. Perhaps Kanasa Lane could be narrowed to 21 total feet.	Will coordinate with DPW if they would prefer 6 ft sidewalk and narrower roadway.

6	General	Speed humps installed in the City of Takoma Park can be quite disruptive to bicycle travel on shared streets. Recommend that speed humps be evaluated for bicycle use and re-designed to conform to MCDOT design standards for similar county roads. Locations - 4th Avenue between Poplar Avenue and Cockerille Avenue and 4th Avenue between Orchard Avenue and Allegheny Avenue. An alternative would be to modify the existing speed humps to provide cutouts for bicyclists.	We have recommended that speed humps be converted to more bike-friendly MCDOT speed humps.
7	5,6	Were alternative routes to the Eastern Avenue/Kansas Lane intersection considered for the bike route? Why not use 4th Avenue to Eastern, and then construct a sidepath along the north side of Eastern avenue to Kansas lane?	This route has a significant difference in elevation climb. DPW reviewed the alternative routes considering aspects such as elevation climb and ROW and determined the route shown is preferred.

<b>Project:</b>	Takoma COGTL New Ave Section D			
<b>Date:</b>	March 2023			
<b>Reviewer:</b>	Public Comments			
<b>Comment ID</b>	<b>Sheet No. / Drawing No.</b>	<b>What do you like most about the proposed initial design concept?</b>	<b>What would you change about the proposed initial design concept?</b>	<b>Additional Comments</b>
1		I think a bike path is a great idea	Keep it on flat parts of the area	Is it all the proposed roads to become cycle tracks? Would the tracks be protected? Would parking, stopping & standing to be enforced if it's on an unprotected track
2		The Poplar Ave section with a true bikeway.	I hate the sharrows. As a regular rider and bike commuter, I find that sharrows do nothing to protect me. They're hardly worth the paint, which fades. The segment should be realigned to cross Poplar, enter the woods just west of New Hampshire Ave, cross Takoma Branch, and then use the old Sligo Mill Road asphalt right-of-way in the woods (degraded at the lower end) to travel up the comfortable grade of that historic road, all the way to the new traffic signal at Eastern Avenue, then continue on Sligo Mill Road in DC to Chillum Road, where a left turn can lead one on Peabody to 3rd St NE with connections to the node at Fort Totten, or a right turn leads one block to the Kansas Ave bike route. A Sligo Mill Road alignment will better serve future mixed use development on lower New Hampshire Ave, will provide a shady respite for cyclists climbing the grade, and will provide better connections between Langley Park and Fort Totten. Besides that, the proposed segment D would put cyclists in conflict with evening peak hours cut-through traffic. Please ditch this proposed route and follow the Sligo Mill Road alignment. It worked for horses, so it will work for bikes!	Please text me at 2404721560 if you would like me to show you what I'm talking about.
3		Information shown to drivers to watch out for bicyclists	I am doubtful a protected bike lane would be politically feasible due to it being a car dependent area	
4		Nothing—it's not needed.	Cancel it.	
5		I like that the route is the least hilly alternative.	Make backstreets limited one-way hours, as mornings are heavily trafficked with somewhat fast drivers.	
6		Making it safer to bike and enabling me to have a more direct route to my work in DC.	.	
7		Simple	Can't think of anything	

8		We need more bikeways	We need sidewalks along with the bikeways. Bikes are dangerous when everyone has to walk on the street since there are no sidewalks. It is ludicrous that my children cannot walk to spring park or their bus stop without walking in the road multiple times. Adding more fast moving bikes will be dangerous for everyone, especially on steep hills like on Kansas Ave.	
9		A Connect to the Sligo bike trail is great	Add in speed bumps or something to slow cars as this is a busy road	Kansas Lane to Poplar is used by motorists to connect to New Hampshire in a shortcut. They speed way to fast and slowing mechanisms need to be put in place along side this bike route for the sake of pedestrians (and lots of kids!) and bikers alike
10		I appreciate the attention to safety and the connection to existing bike lanes in DC.	Bike lanes should be paired with continuous sidewalks so that pedestrians can walk safely without having to enter the bike lane.	
11		The area needs development and investment that is pedestrian/bike friendly in the neighborhood. NH Ave and Eastern Ave are underdeveloped and overlooked by the City of Takoma Park, Washington, DC and MD SHA.	4th Ave is a disaster from a pedestrian and vehicular traffic perspective. There are no sidewalks on both sides of the street, so pedestrians are always arbitrarily crossing back and forth across the street. It's a busy vehicular cut through street, that the City of Takoma Park has failed to address meaningfully despite resident complaints. As a cyclist myself, it's clear that putting bike lanes on 4th Ave is a bad idea, until (at a minimum) there are sidewalks on both sides of the street. Otherwise, pedestrians will be regularly stepping into the bike moving lanes.	The proposed route along Sligo Mill and behind Jiffy Lube is by far a better conceptual route. However, I suspect that resources won't be mobilized to do the engineering and works necessary to develop this route, because the area is essentially a "forgotten corner" of Takoma Park. The shame is that using the sub-optimal route along 4th will negatively impact the neighborhood and make the route less desirable and less used by cyclists.
12		The intersection of 4th and Poplar can feel dangerous as many cars traveling from New Hampshire speed through the stop sign and cut through to Eastern. The proposal would make it safer to bike and walk and would hopefully slow down traffic passing through. I bike to work along this route every week day morning and afternoon and the proposed lanes will make this much safer!	No change but consider the Takoma public schools bus stop at 4th and Orchard st	
13		Bikers will be protected on main thoroughfares where people frequently drive less than safely	Nothing	
14		I would ride it all the time! New Hampshire is a death trap for cyclists... but the only way to get up north to Sandy Spring and Olney!	Of course, I hope the project continues along New Hampshire one day to White Oak!	



15		<p>For the most part it has limited disruption to the existing streets which seems appropriate since it's a stretch of &lt;25mph roads with many road calming features throughout</p>	<p>I would just stencil the bike sharing chevrons and put up the bike lane signs and be done with it. It's not clear why the additional sidewalks along Poplar &amp; Kansas are needed as part of this scope and those seem like they will delay the objective to demarcate specific bike lanes on the existing roads. If the goal is to build bike lanes, then it seems like this can be done relatively quickly and at fraction of the cost associated with widening sidewalks, moving utilities and removing trees.</p>	<p>I am concerned cost and delays given that the broader New Ave Bikeway process seems to have been ongoing for a decade now with \$1.7m spent on feasibility studies. Section D focuses on quiet residential streets where car traffic flows at &lt;25mph so it's not clear why the city needs to do anything beyond providing signage and/or adding bike sharing chevrons to the road. While I don't have strong views on whether or not more bikes ought to flow through the community (sure, why not), I am concerned about the slow pace of public works in general and Takoma Park in particular. While I have no experience in city planning and road engineering, I think it would make sense to consider whether bikes could just align into Poplar and Kansas from New Hampshire and Eastern respectively without the need for further extensive capital works. Have the pro and cons of that been considered vs the additional financial cost of the sidewalk/shared use projects?</p>
16		<p>Continuity between bike routes. Like that it goes through path of least resistance because neighborhood is so hilly. And like that it goes along parks.</p>	<p>Nothing</p>	<p>Currently don't bike down that section of New Hampshire because it feels very unsafe to cycle with cars speeding.</p>

## **APPENDIX E**

### **Stormwater Management Calculations**

