

#### BPAG

July 20, 2022





# Background

- Maryland Code
  - Maintenance responsibility of bicycle pathways along urban highways
  - Summary presented at the November 2021 BPAG meeting
- Request to discuss shared use path maintenance responsibilities at May BPAG meeting





### **Shared Use Paths**

- A paved or unpaved bikeway outside the motor vehicle traveled way and physically separated from motorized vehicular traffic by an open space, curb, curb and gutter, or barrier
- Either within the highway right-of-way or within an independent alignment
- Shared use paths are open to use by pedestrians and other authorized non-motorized users
- Minimum width for a bi-directional path is 10 feet wide, with widths ranging from 10 – 14 foot based on volume
- Sources: MDOT SHA Bicycle Policy and Design Guidelines (2015) and AASHTO Guide for the Development of Bicycle Facilities (2012)





### **Shared Use Path**





### Shared Use Path

Sidepath A path located in the roadway right-of-way





### Shared Use Path

Sidepath A path located in the roadway right-of-way



**Greenway** A path with an independent right-of-way



#### • Washington D.C.

- Maintenance responsibility varies based on who is the property owner (NPS, DDOT, or DPR)
- The agency property owner maintains the path unless there is an agreement which divides responsibility between agencies
- DDOT is the only agency that clears snow from paths
- DDOT completed an internal "Maintenance Guideline Report" for trail, bicycle, and pedestrian facilities in 2010
- An updated inventory/maintenance report was completed in spring 2022
  - This document has been useful in promoting cross organizational conversations and to assess and fill in gaps in maintenance practices





#### Montgomery County, MD

- The Montgomery County Department of Transportation (MCDOT) maintains shared use paths
- However, if the paths are on Montgomery County Park property they are maintained by Montgomery Parks
- Property owners adjacent to side paths are responsible for snow removal with a minimum clear path wide enough for a pedestrian or wheelchair user (Montgomery County Code)
- The Countywide maintenance plan includes maintenance of shared use paths and funding is programmed within the Operating Budget
- All new Capital Improvements Projects must show future maintenance costs so they can be added to the Operating Budget





- Arlington County, VA
  - Department of Parks and Recreation (DPR) maintains most County paths
  - However, some major trails are not on County property:
    - Mount Vernon Trail, owned and maintained by the National Park Service
    - Washington and Old Dominion Trail, owned and maintained by Northern Virginia Regional Parks Authority
    - Custis Trail, owned by VDOT and largely managed and maintained by the County under a memo of agreement
  - A subset of County controlled paths are designated key transportation facilities and are cleared of snow by the County
  - Arlington County does not have a shared use path maintenance plan and paths are not included in a larger maintenance plan





- Shared Use Paths Inventory and Detailed Maintenance Plan, 2016
  - Tracks the current condition of paths, new paths are added as they are built, and work history is documented

### • Components of a maintenance plan include:

- 1. Current maintenance needs (maintenance backlog)
  - One time cost to bring path condition up to an acceptable level
- 2. General maintenance needs
  - Snow removal, sweeping, mowing, cleaning drainage structures, monitoring and evaluating path conditions
- 3. Pavement preservation maintenance (asphalt)
  - Crack sealing (~4 years), fog sealing (~8 years), pavement overlays (~25 years)





- Current Maintenance Needs of Existing Shared Use Paths
  - 1. Inventory
    - Collect data by riding a bicycle along the shared use path using a GoPro camera mounted to the bicycle to take photos every 10 seconds
    - Use ArcGIS Field Maps application to record: surface type, photos, drainage, etc. of intersections, for every 10 miles
    - Randomly select 1 mile out of every 10 miles to record: cracking, oxidation, potholes and raveling, and drainage issues
  - 2. Analysis
    - Use the GoPro photos and 1 mile assessments to analyze pavement condition ranking from poor to excellent
  - 3. Cost
    - Use three year average costs to calculate the needed pavement repairs to bring the shared use path up to acceptable condition levels





#### Figure One: Cracking





Figure Four: Good to Excellent Condition Figure Five: Fair Condition



Figure Six: Poor Condition



Figure Six:



#### Figure Three: Raveling





Major

Pothole/Raveling





#### General Maintenance Needs

- 1. Calculate costs per mile using averaged three year costs
- 2. Snow removal, sweeping, mowing, cleaning drainage structures, monitoring and evaluation conditions

#### Pavement Preservation Maintenance

- 1. Calculate the costs by determining how often general treatments are needed
- 2. For asphalt these include crack sealing, fog sealing, pavement overlays
- 3. Concrete shared use paths require less annual maintenance
- 4. Pervious surface types require specialized cleaning and maintenance





# Washington DC DOT Shared Use Path Maintenance Plan

Shared-Use Path Maintenance Responsibility (October 2021)



Figure 3: Maintenance Jurisdiction of the City's Shared-use Path Network





### **For More Information**

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