



Draft Framework Report Bicycle Master Plan

July 28, 2016

Montgomery County Planning Department
David Anspacher, Project Manager

Agenda

- [1] Staff Presentation
- [2] Testimony
- [3] Deliberations

[1] Staff Presentation

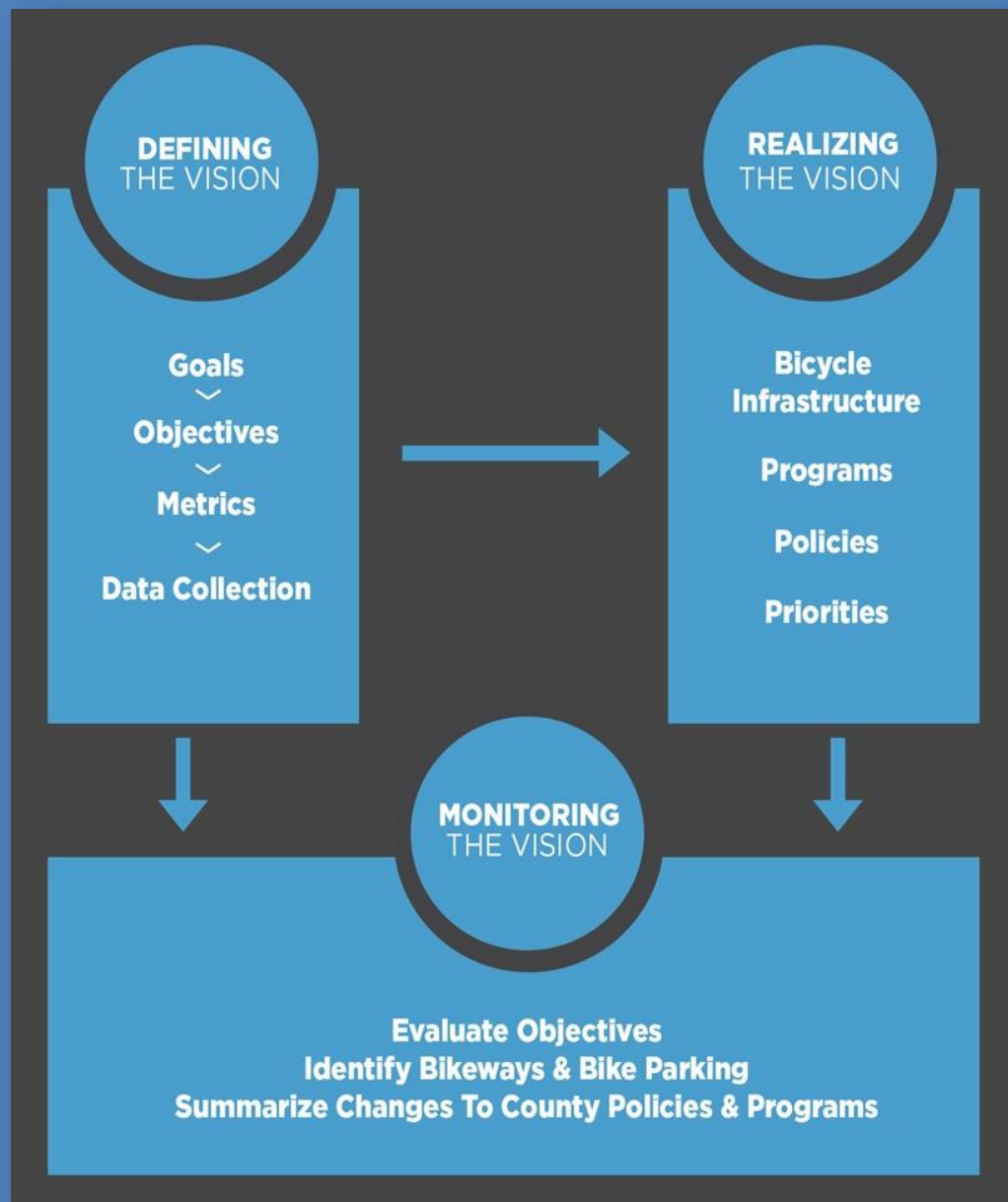
Purpose of Framework Report

- Fulfill Task 4 of Scope of Work
 - Outlines plan approach
 - Discussion of several issues
- Will be used to draft the Bicycle Master Plan

Outreach

- Community Advisory Group
 - 21 member group
 - 7 meetings
- Technical Advisory Group
 - County agencies, municipalities & surrounding jurisdictions
 - Comments from MCDOT, Rockville, Takoma Park

Issue #1: Plan Framework



Issue #1: Plan Framework



Vision Statement

Montgomery County will become a world-class bicycling community.

Everyone in Montgomery County will be able to travel by bicycle on a comfortable, safe and connected bicycle network. Bicycling will become a viable transportation option and elevate the quality of life in the County.

Issue #1: Plan Framework



Goal

Increase bicycling rates in Montgomery County.

Objective

Increase the percent of Montgomery County residents who commute by bicycling to #% by 20##.

Metric

Percentage of residents who commute by bicycle.

Data Collection

Method of transportation that people use for the longest distance segment of their trip to work.

Issue #1: Plan Framework

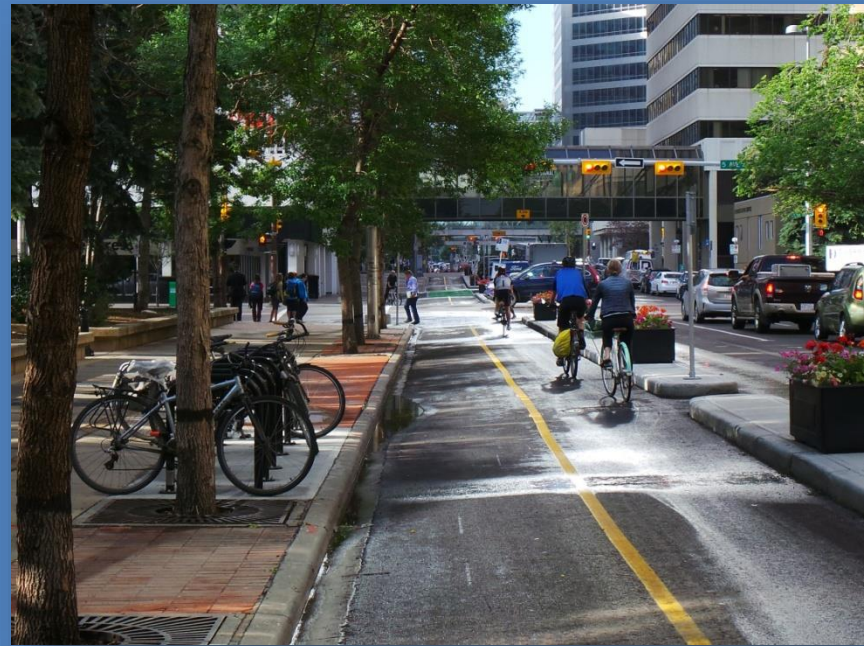
**REALIZING
THE VISION**

**Bicycle
Infrastructure**

Programs

Policies

Priorities



Two-Way Separated Bike Lanes

Issue #1: Plan Framework

**REALIZING
THE VISION**

**Bicycle
Infrastructure**

Programs

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Priorities



Bicycle Parking Station

Issue #1: Plan Framework



Issue #1: Plan Framework



Bicycle Parking at the Chevy Chase Library

Issue #1: Plan Framework

**REALIZING
THE VISION**

**Bicycle
Infrastructure**

Programs

Policies

Priorities



Bike Lanes Requirement on State Highways

Issue #1: Plan Framework



Issue #1: Plan Framework



**MONITORING
THE VISION**

**Evaluate Objectives
Identify Bikeways & Bike Parking
Summarize Changes To County Policies & Programs**

Issue #1: Plan Framework

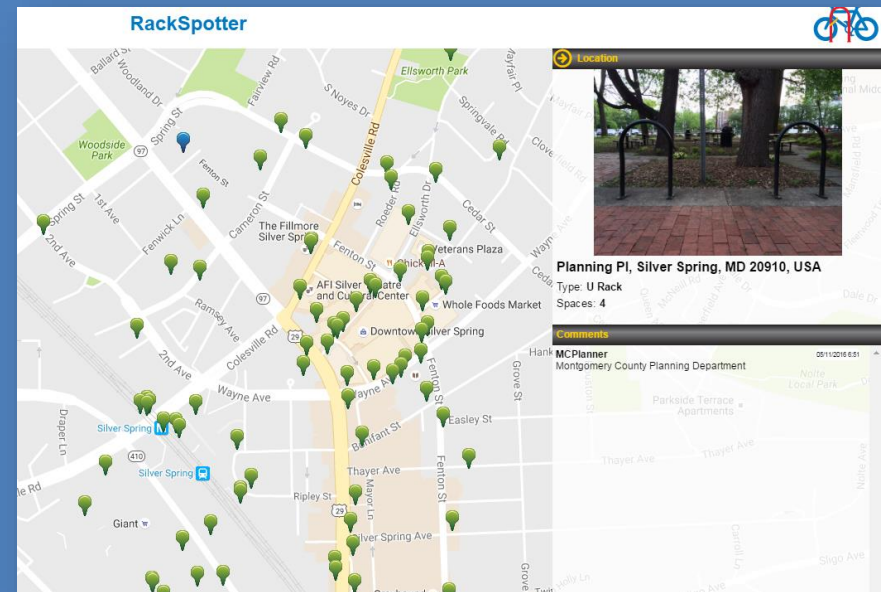
OBJECTIVE	METRIC	ACTUAL		TARGET	
		2017 (BASELINE)	2019 (FUTURE YEAR)	2022 (5-YEAR TARGET)	2027 (10-YEAR TARGET)
GOAL 2: CREATE A HIGHLY-CONNECTED, CONVENIENT AND LOW-STRESS BICYCLING NETWORK					
2.1	Percentage of potential bicycle trips that can be made on a low-stress bicycle network.	TBD			
2.2	Percentage of dwelling units within 2.0 miles of Red Line, Brunswick Line, Purple Line, and Corridor Cities Transitway stations that can access the station on a low-stress bicycling network.	Red Line	18%		
		Brunswick Line	12%		
		Purple Line	15%		
		Corridor Cities Transitway	23%		
2.3	Percentage of dwelling units located within the attendance zone of elementary, middle and high schools that are connected to each school through a low-stress bicycle network.	Elementary Schools	20%		
		Middle Schools	10%		
		High Schools	5%		
2.4	Percentage of dwelling units within 2.0 miles of a public facility will be connected to that facility through a low-stress bicycling network.	Public Libraries	10%		
		Recreation Centers	22%		
		Recreational and Regional Parks	37%		

Issue #2: Data and performance metrics

- Arlington, VA
- Boston, MA
- Cambridge, MA
- Davis, CA
- Fort Collins, CO
- Minneapolis, MN
- Portland, OR
- San Diego, CA
- Salt Lake City, UT
- Sacramento, CA
- Seattle, WA
- Washington, DC

Issue #2: Data and performance metrics

- Bicycle parking metrics
- Bike Arlington RackSpotter app
 - Off-the-shelf web app
 - 600+ racks catalogued
 - About 15 volunteers
- Demonstration

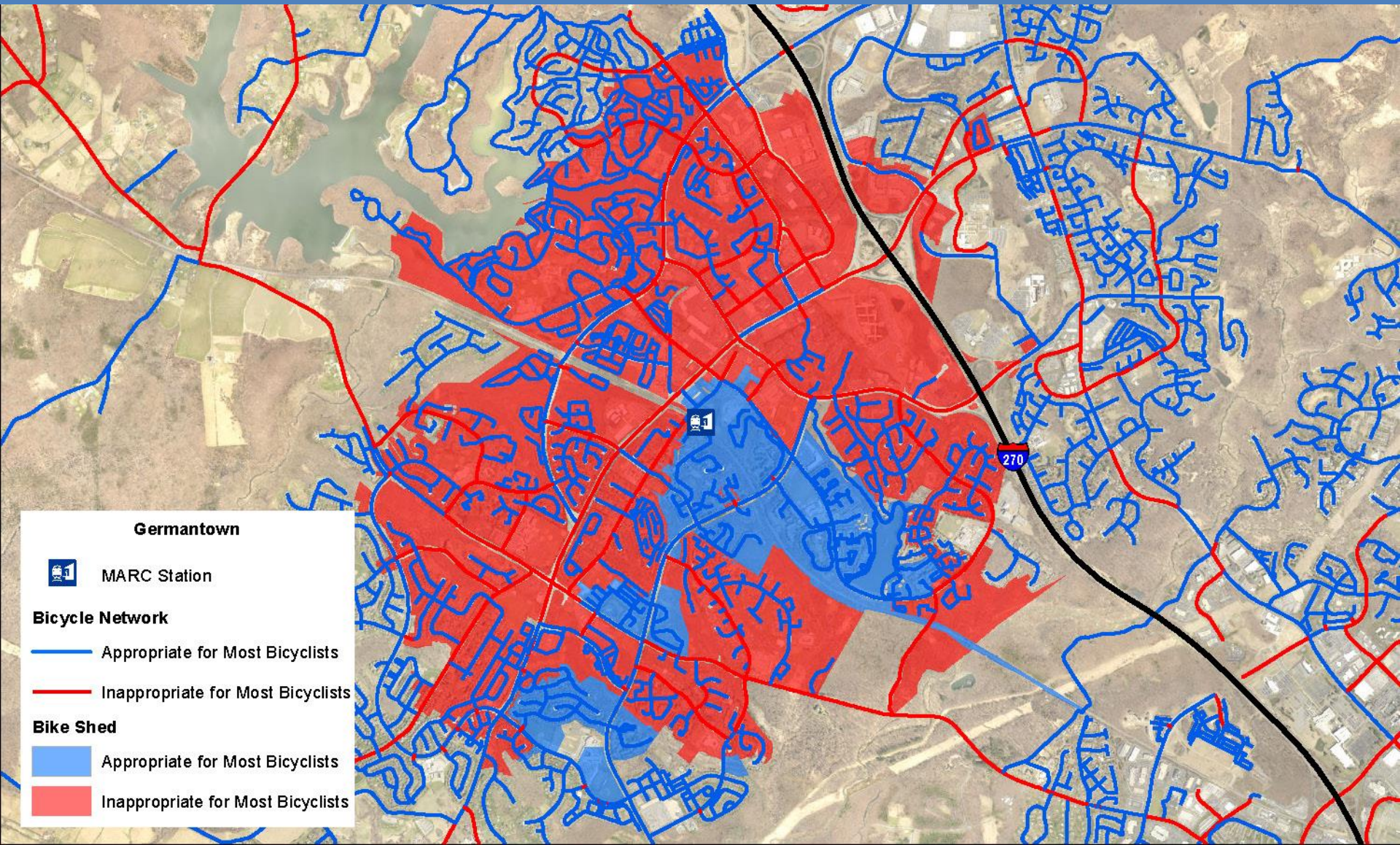


Issue #2: Data and performance metrics

- Analyzing connectivity to:
 - Transit stations
 - Schools
 - Park facilities
 - Libraries
 - Recreation centers

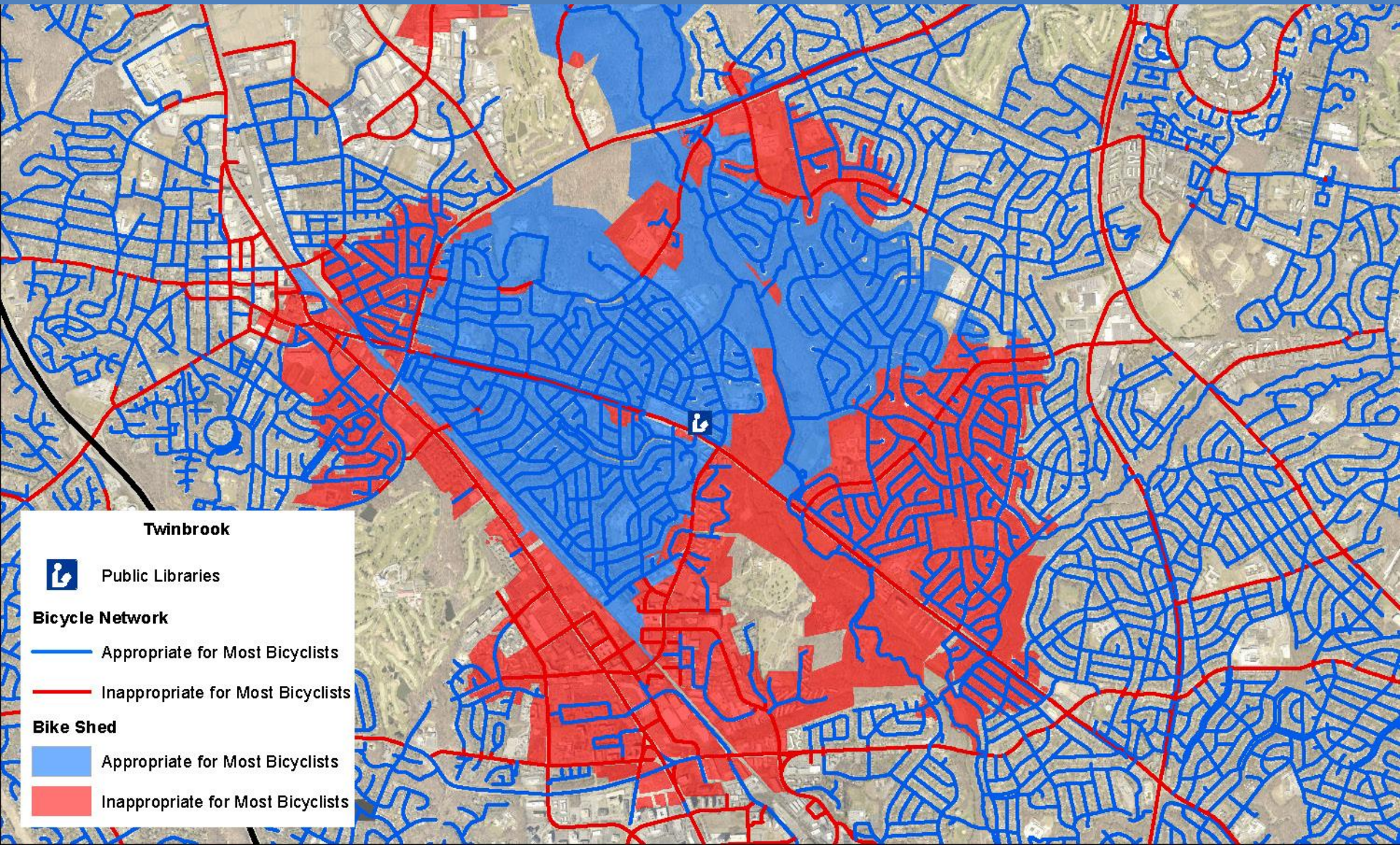
Issue #2: Data and performance metrics

Measure of Connectivity at Germantown MARC Station: 18%



Issue #2: Data and performance metrics

Measure of Connectivity at Twinbrook Library: 35%



Issue #3: Approach to Goals & Objectives

Purpose

- Prioritize recommendations
- Monitoring report

Issue #3: Approach to Goals & Objectives

Characteristics of Goals

- Broad conditions that are needed to achieve the plan's vision statement.
- General, brief and can always be improved.
- Do not prejudge a solution, but articulate the conditions that lead to solutions.
- Described by one or more objectives.

Issue #3: Approach to Goals & Objectives

Goal 1:

Increase bicycling rates in Montgomery County.

Issue #3: Approach to Goals & Objectives

Characteristics of Objectives

- Specific conditions that must be met to advance a particular goal.
- Achievable, measurable and time-specific.
- Effective when they show a meaningful change between scenarios.
- Do not prejudge a solution, but articulate the conditions lead to solutions.
- Most effective when carefully defined, avoid “wiggle room,” don’t require a lot of new data.

Issue #3: Approach to Goals & Objectives

Example:

Increase the percentage of Montgomery County residents who commute by bicycle to ## percent by 20##.

Issue #3: Approach to Goals & Objectives

Metrics

- Standard of measurement applied to objectives.
- Determine data requirements.
- Used in the monitoring report.

Issue #3: Approach to Goals & Objectives

Example:

Percentage of residents who commute by bicycle.

Issue #3: Approach to Goals & Objectives

MONTGOMERY COUNTY BICYCLE MASTER PLAN FRAMEWORK (DRAFT)



Source: Michael Tercha/Chicago Tribune



GOAL 1

Increase bicycling rates in Montgomery County

The most important measure of success for the Bicycle Master Plan is the extent to which the amount of bicycling increases in Montgomery County. Goal 1 evaluates how bicycling increases over time among different groups of people, destinations and trip types. Success in advancing this goal is largely driven by success in advancing the other three goals of the plan and, therefore, the recommendations for bicycle infrastructure, policies and programs.

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MONTGOMERY COUNTY BICYCLE MASTER PLAN FRAMEWORK (DRAFT)

1.1 OBJECTIVE

Increase the percentage of Montgomery County residents who commute by bicycle to # percent by 20##.

METRIC

Percentage of residents who commute by bicycle.

DATA REQUIREMENT & SOURCE

- Method of transportation that people use for the longest distance segment of their trip to work (source: American Community Survey).

1.2 OBJECTIVE

Increase the percentage of people who commute by bicycle to Montgomery County's Transportation Management Districts (TMD) by 20## to:

- # percent in Downtown Silver Spring
- # percent in Downtown Bethesda
- # percent in North Bethesda
- # percent in Friendship Heights
- # percent in Greater Shady Grove
- # percent in White Oak Science Gateway (when funded)

METRIC

Percentage of commuters who bicycle as part of their commute to a Transportation Management District (Bethesda, Friendship Heights, North Bethesda, Shady Grove, Silver Spring, White Oak).

DATA REQUIREMENT & SOURCE

- Number of respondents who bicycle to work by Transportation Management District (requires changes to the existing Commuter Survey).
- Number of respondents by Transportation Management District (Commuter Surveys).

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Issue #4: Recommended Goals



GOAL 1

Increase bicycling trips in Montgomery County.



GOAL 2

Create a highly-connected, convenient and low-stress bicycling network.



GOAL 3

Provide equal access to low-stress bicycling for all members of the community.



GOAL 4

Improve the safety of bicycling.

Issue #5: Levels of Traffic Stress



Tolerate High Stress (~7%)

Very comfortable on non-residential streets without bike lanes



Tolerate Moderate Stress (~5%)

Very comfortable on non-residential streets with bike lanes



Tolerate Lower Stress (~51%)

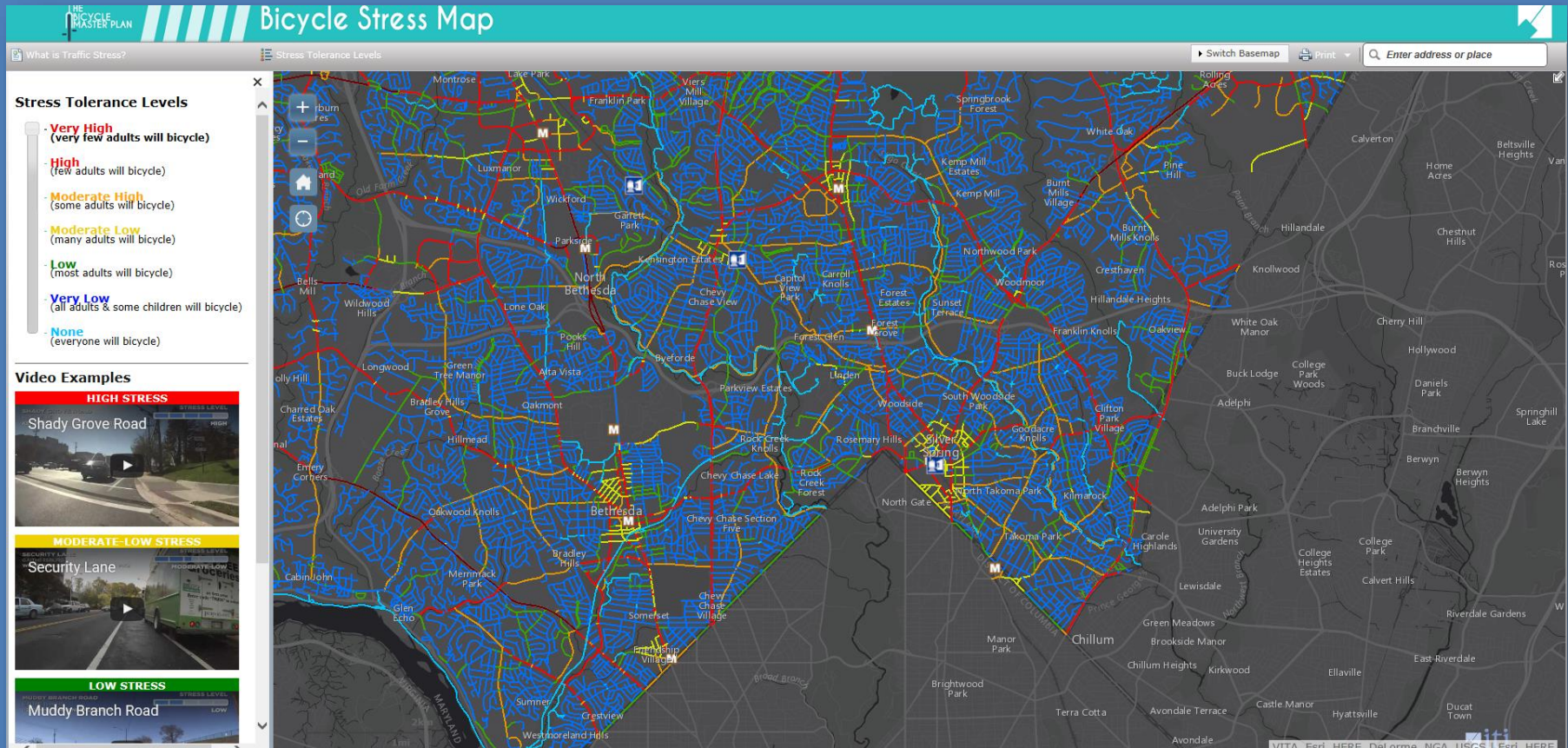
Less than very comfortable on non-residential street with or without bike lanes



Do Not Bicycle (~37%)

Everyone else

Issue #5: Levels of Traffic Stress



www.mcatlas.org/bikestress

Issue #6: Bikeway Classification

BICYCLE FACILITY CLASSIFICATION



MOST

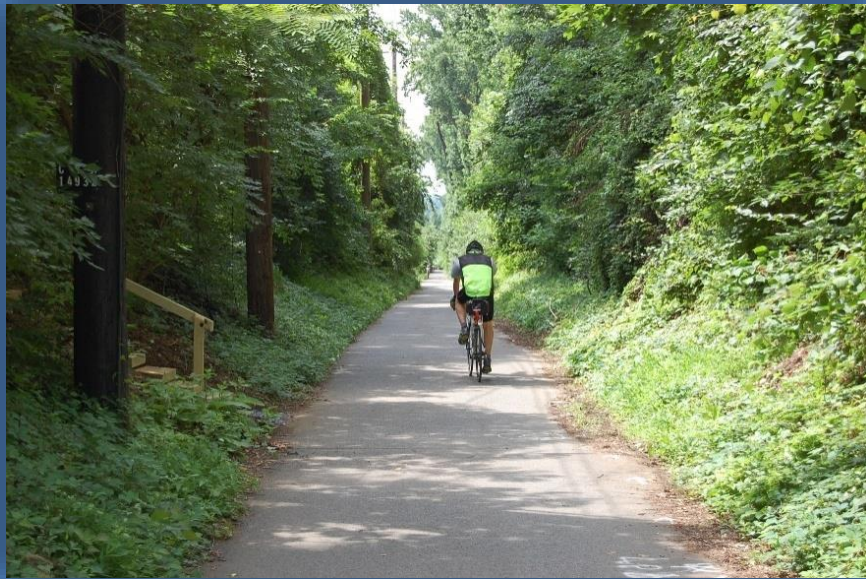
SEPARATION FROM TRAFFIC

LEAST



Trails

off-road trails | stream valley trails



Bethesda Trolley Trail



Sligo Creek Trail



MOST

SEPARATION FROM TRAFFIC

LEAST

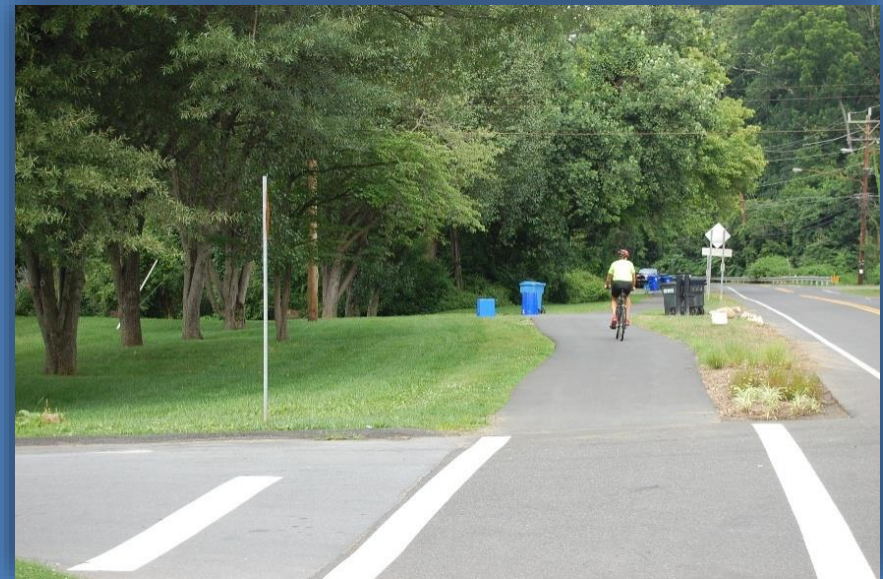


Separated Bikeways

separated bike lanes | sidepaths



Separated Bike Lane on Woodglen Drive



Sidepath on MacArthur Blvd



MOST

SEPARATION FROM TRAFFIC

LEAST



Striped Bikeways

buffered bike lanes | bike lanes | advisory bike lanes



Bikes Lanes on Stewart Lane



Buffered Bike Lane in Chicago



MOST

SEPARATION FROM TRAFFIC

LEAST



Bikeable Shoulders



MOST

SEPARATION FROM TRAFFIC

LEAST



Shared Roads

neighborhood greenways | shared streets



Neighborhood Greenway
Cesar E Chavez Blvd, Portland
(source: Toole Design Group)



Shared Street

MOST

SEPARATION FROM TRAFFIC

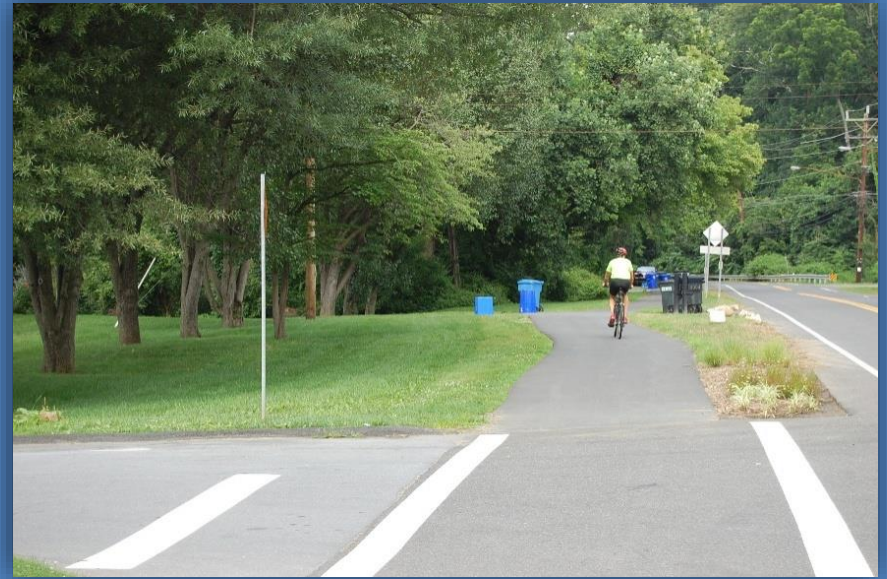
LEAST



Issue #7: Approach to Separated Bikeways



Woodglen Drive



MacArthur Blvd

Existing or Anticipated Pedestrian Demand

Issue #8: Neighborhood Greenways



SE Lincoln Street in Portland, Oregon. (Toole Design Group)

Issue #9: Signed Shared Roadways

- Eliminate signed shared roadways as a bikeway facility classification.
 - Don't improve comfort
 - Main purposes are operational
- Consider replacing existing signed shared roadways with another bikeway facility type

Issue #9: Signed Shared Roadways

- Eliminate wide outside lanes.



Source: Toole Design Group

Issue #9: Signed Shared Roadways

- Implementation tools for MCDOT and SHA:

Wayfinding Signs



Regulatory Signs



Issue #9: Signed Shared Roadways

- Recommendations for MCDOT

Develop Wayfinding Plan



Develop Sharrow Policy



Issue #10: Separated bike lanes

Can they replace dual bikeways?



Dual Bikeway on Darnestown Road

Issue #10: Separated bike lanes

Can they replace dual bikeways?



Dual Bikeway on Darnestown Road

Issue #10: Separated Bike Lanes

(Two-Way on Both Sides of the Road)

Criteria

- Long distances between safe, comfortable crossings (typically 800 to 1,000 feet).
- Wide automobile travel way cross section (four or more lanes).
- Presence of destinations/active land uses on both sides of the street.

Issue #10: Separated bike lanes Two-Way on Both Sides of the Road



Rockville Pike

Issue #12: Bikeway Hierarchy

Existing Approach

- Countywide Bikeway
- Local Bikeway

Proposed Approach

- High Priority Bikeway
- Priority Bikeway
- Bikeway

OR

- Tier 1
- Tier 2
- Tier 3
- Tier 4

Issue #13: Monitoring Report

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Next Steps: Planning Board Review

Worksessions

- September 8, 2016
- September 15, 2016

Draft Bicycle Master Plan

- Early 2017

A stylized graphic of a bicycle frame, showing the top tube, down tube, seat tube, and rear triangle, rendered in white and dark blue.

THE BICYCLE MASTER PLAN