

#### North Bethesda TMD

July 14, 2015



#### Agenda

- [1] Why update the Bicycle Master Plan
- [2] Bicycle Parking
- [3] The overall approach to the master plan

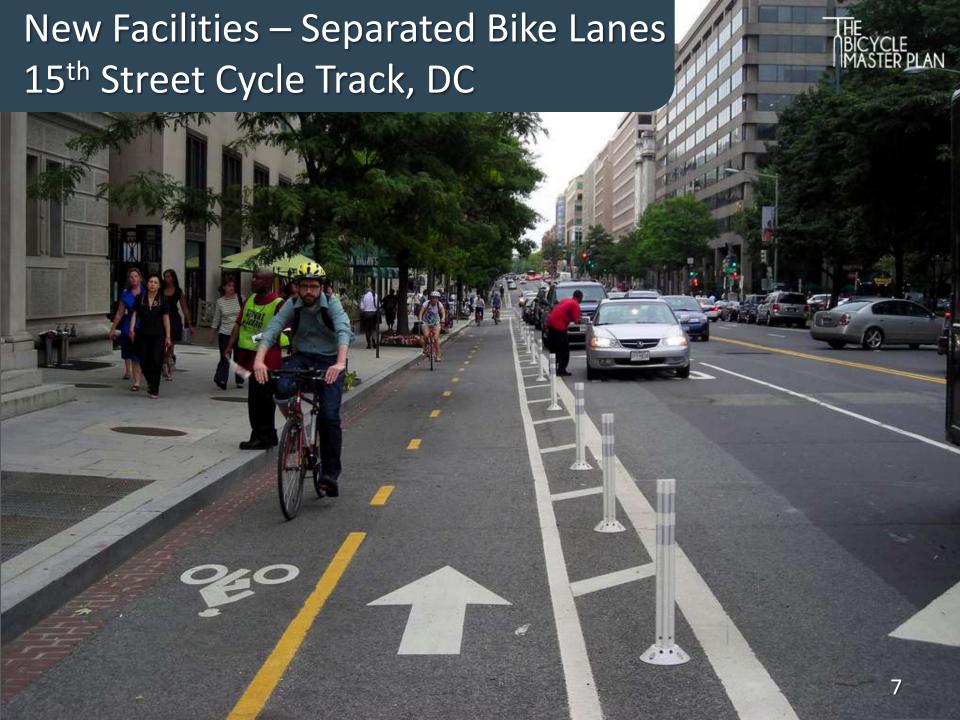


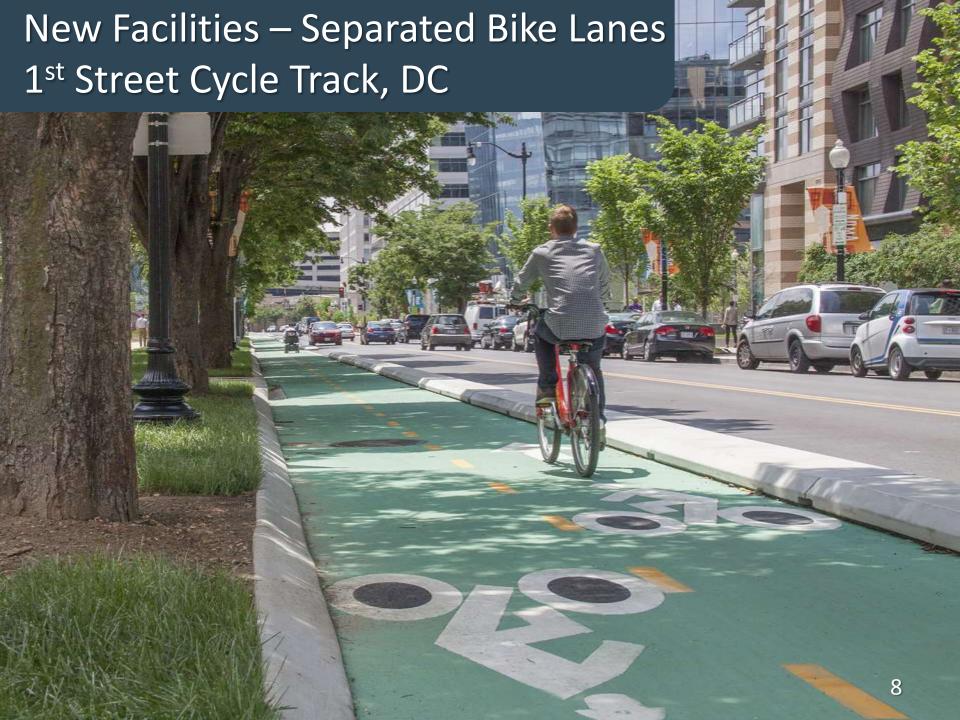
#### [1] Why Update the Bicycle Master Plan?









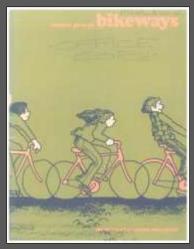




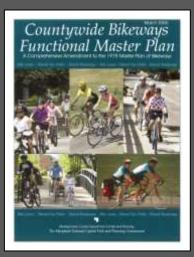


#### Consolidate Bike Recommendations

#### **Functional Plans**



1978 Master Plan of Bikeways

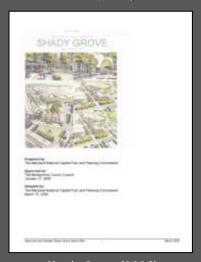


2005 Countywide Bikeways Functional Master Plan

#### Area Master Plans



GSSC (2010)



Shady Grove (2006)



Wheaton CBD (2012)



White Flint (2010)



Long Branch (2013)

#### Traditional User Groups





Commuters



Recreation

#### New User Groups







Commuters

**Running Errands** 

Going to School

**Accessing Transit** 

Entertainment

Recreation





## New Understanding of User Groups Four Types of Transportation Cyclists





Strong and Fearless (~1%)



Enthused and Confident (~10%)

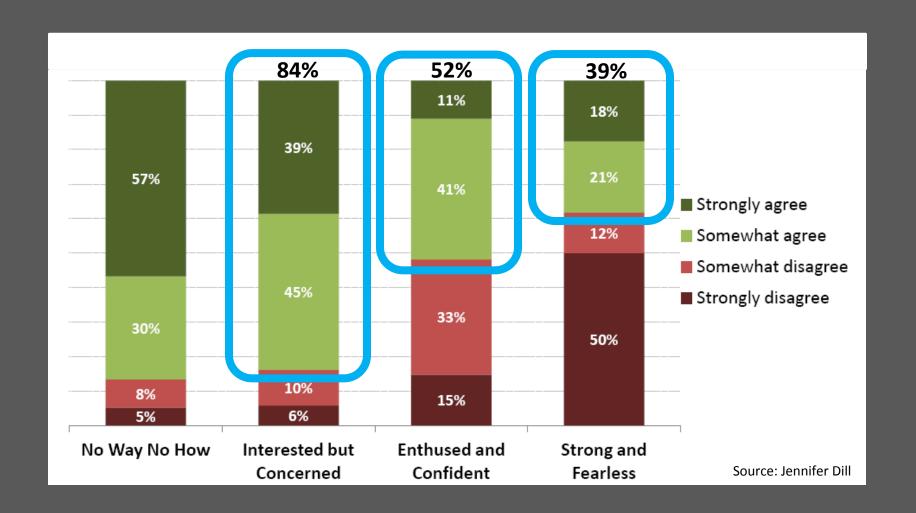


Interested but Concerned (~60%)

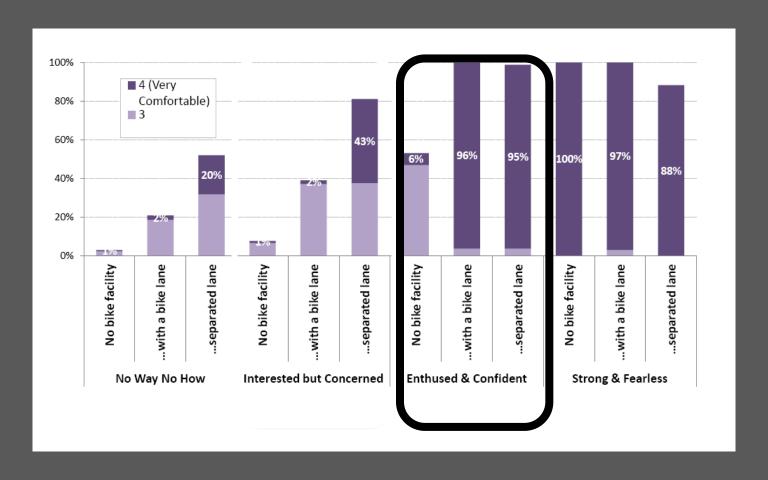


No Way, No How (~30%)

## "...when I ride a bike, I'm concerned about being hit by a motor vehicle..."



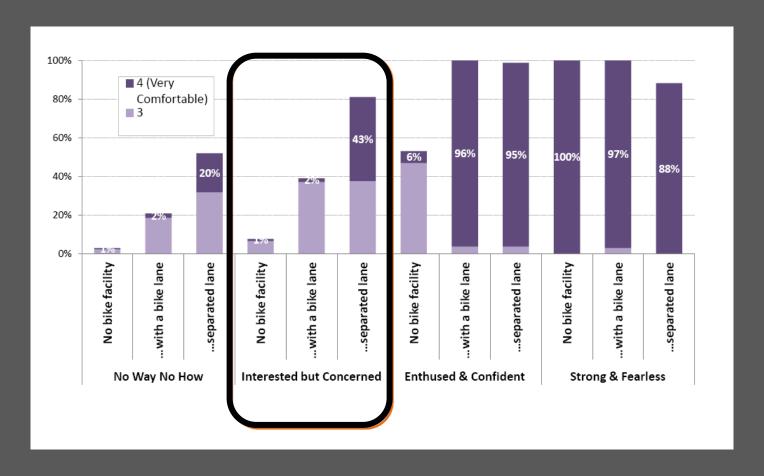
#### "I'm comfortable riding on a 4-lane Road with a 30 mph speed limit"



"Enthused and Confident" group is comfortable riding on arterial roads with bike lanes

Source: Jennifer Dill

#### "I'm comfortable riding on a 4-lane Road with a 30 mph speed limit"



"Interested by Concerned" group requires buffered bike lanes or cycle tracks on arterial roads

Source: Jennifer Dill

#### Approach |

All roads are part of the bike network...

...but some need bicycle facilities to make them bikeable by the general population

**Higher Stress** 

**Lower Stress** 



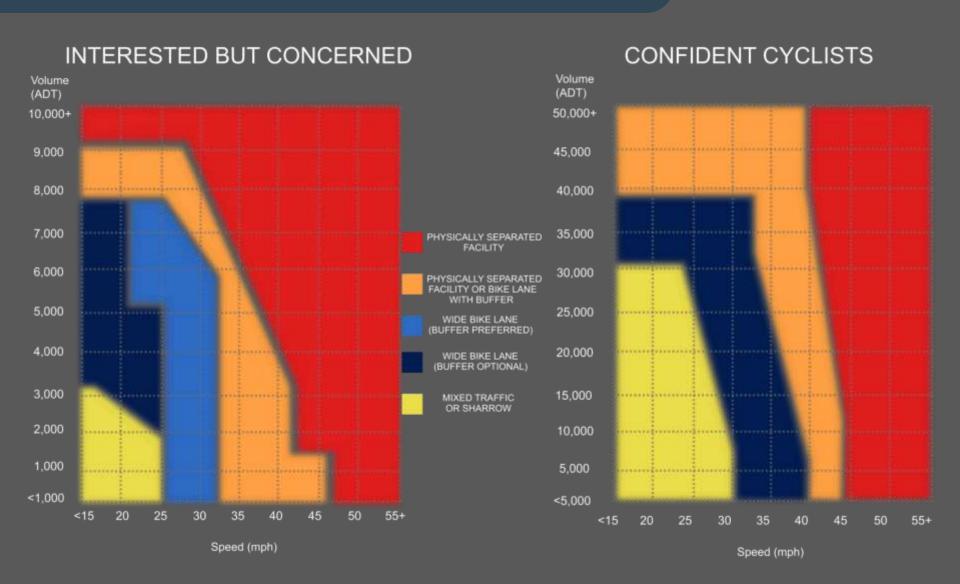




## How Do We Know Our Plans Need to Change?

#### Speed and Volume Charts





Old Georgetown Road south of Democracy Blvd Speed: 40 mph Volume: 47,000





Old Georgetown Road south of Democracy Blvd Speed: 40 mph Volume: 47,000





Rock Spring Drive (at Walter Johnson High School)

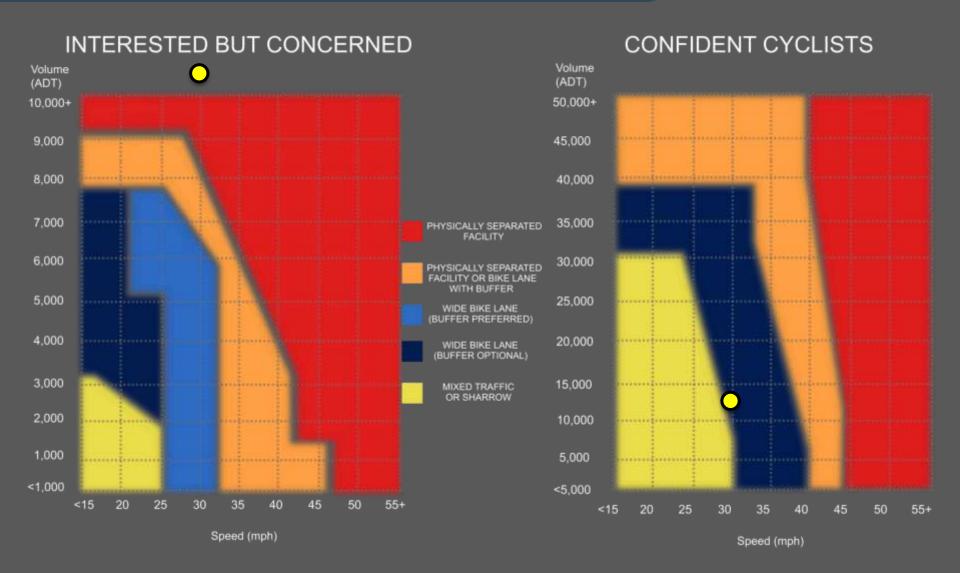
Speed: 30 mph Volume: 12,800



Rock Spring Drive (at Walter Johnson High School)

Speed: 30 mph Volume: 12,800





Fernwood Road (at Marriott)

Speed: 30 mph Volume: 5,000???





Fernwood Road (at Marriott)

Speed: 30 mph Volume: 5,000???





#### **Level of Traffic Stress**



#### What are Causes of Stress When Riding a Bike?

- High traffic volumes
- High traffic speeds
- Frequent parking turnover
- Crossing major roads without a signal
- Bike lane ends

#### Level of Traffic Stress





- High stress, suitable for 1% of the population
- Equivalent to bicycling in traffic on 40+ mph roads



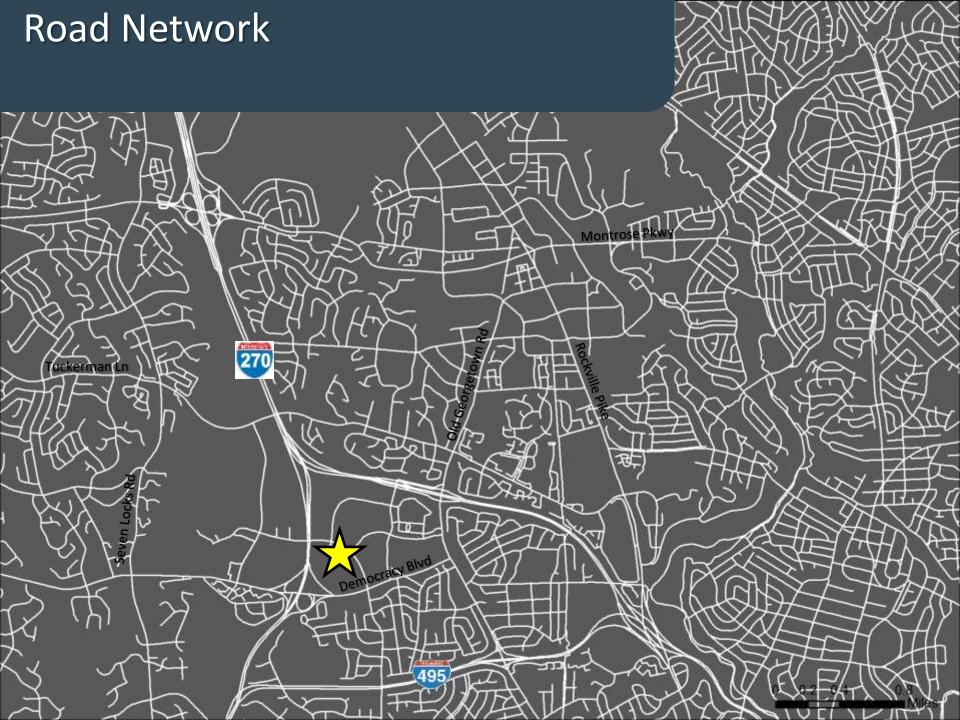
- Moderate stress, suitable for 10% of the population
- Equivalent to bicycling on 4-lane roads w/ bike lanes

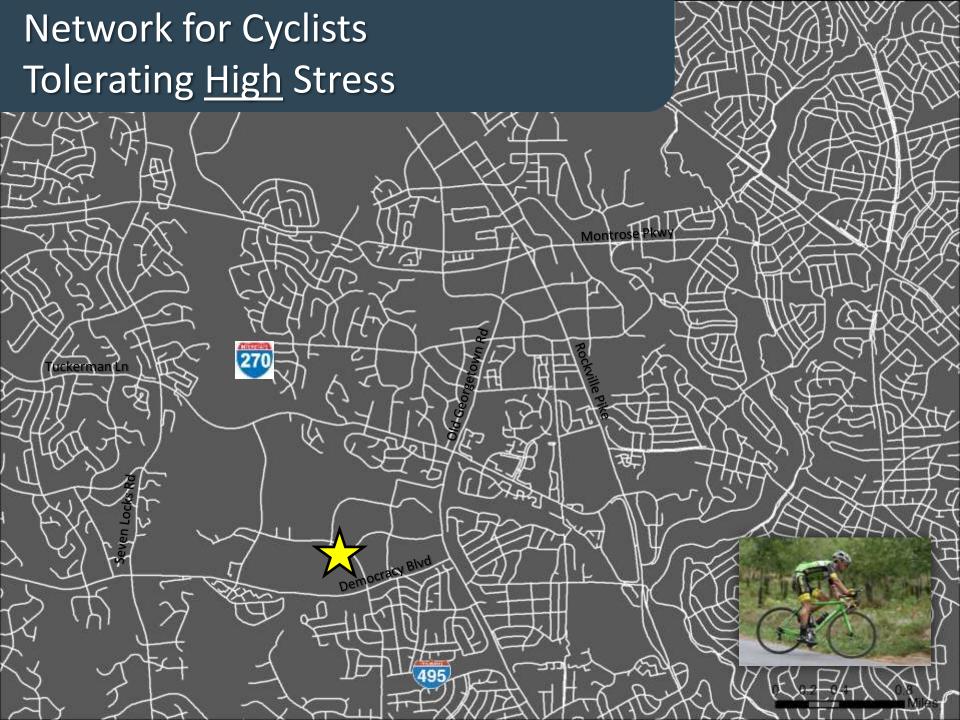


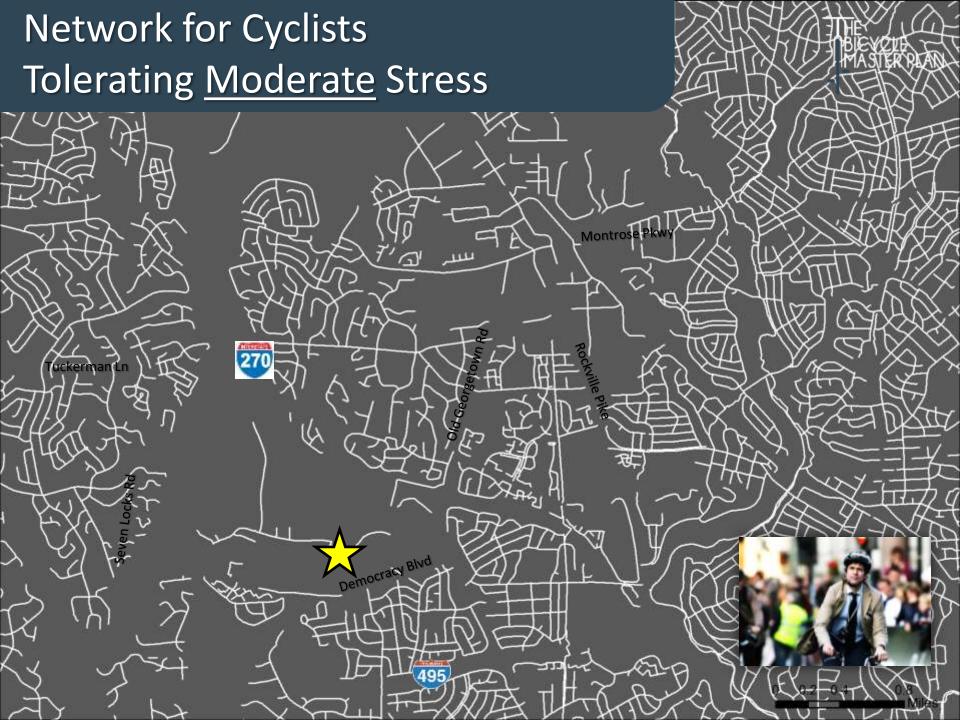
- Low stress, suitable for 60% of the population
- Equivalent to low-volume / low-speed roads

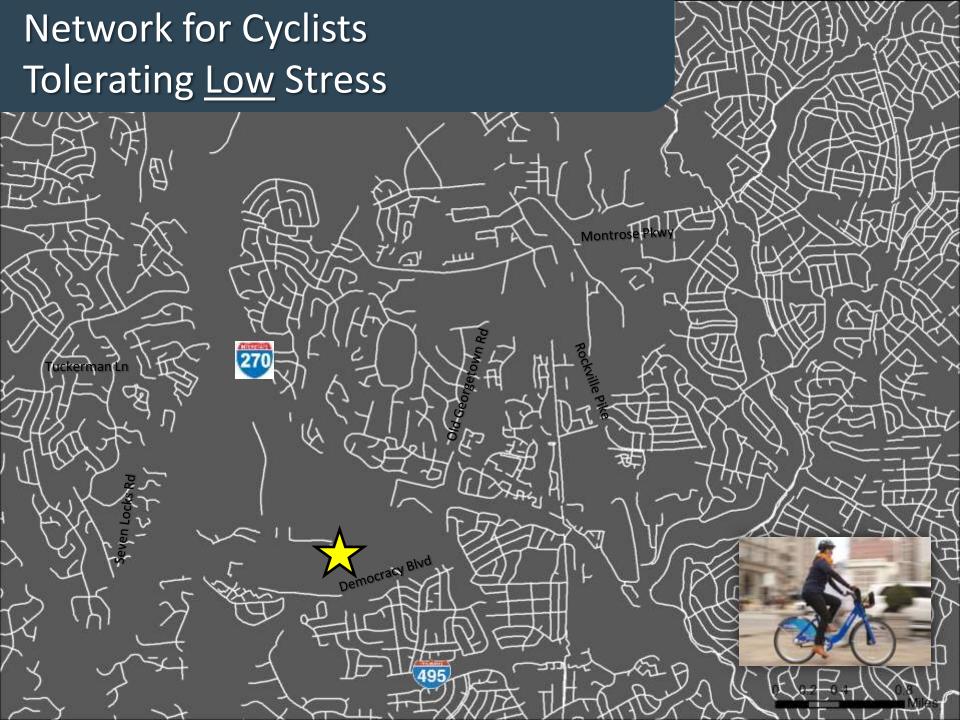


- <u>Very low stress</u>, requires little attention
- Equivalent to neighborhood roads, cycle tracks, trails









# **Network for Cyclists** Tolerating <u>Very Low</u> Stress MontrosePkw



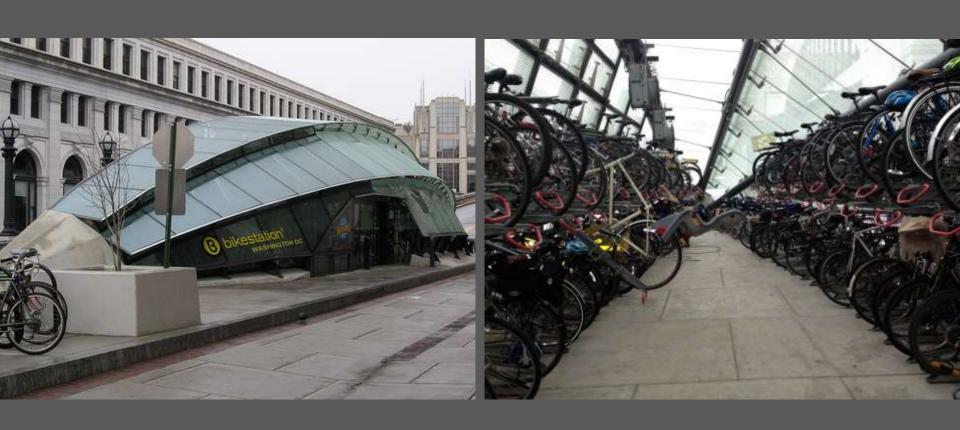
#### [2] Bicycle Parking





### Union Station Metro Station District of Columbia

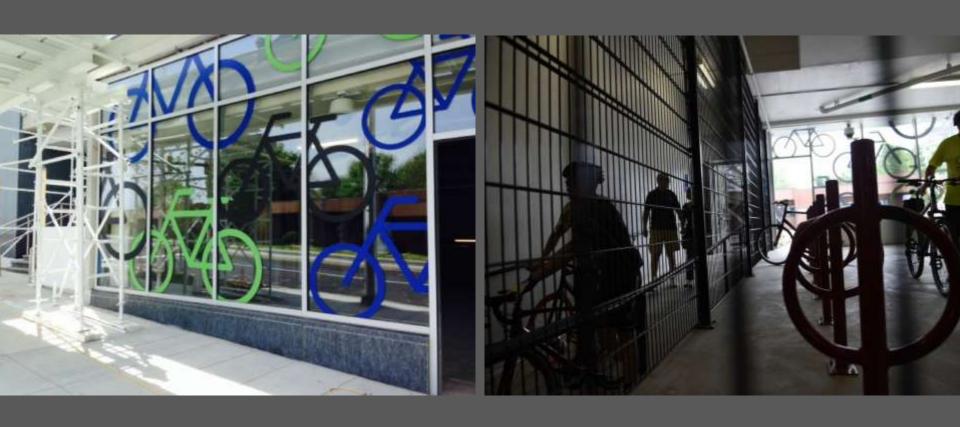




Holds 100+ bicycles. Full nearly every day.

## Wiehle Reston East Metro Station Fairfax County, Virginia





Holds 200+ bicycles

## College Park Metro Station Prince George's County, Maryland







Holds 150+ bicycles. Use is growing.

#### Berkeley BART Station Berkeley, California







Holds 268 bicycles. Full nearly every day.

#### Bicycle Storage Recommendations



- Develop goal-based demand estimates for:
  - Red Line Stations (ex 3.5% of AM boardings by 2030)
  - Future Corridor Cities Transitway Stations
  - Future Purple Line Stations
- Recommendations
  - Bicycle storage facility location
  - Bicycle storage facility size (sq ft)



# [3] Overall Update to the Bicycle Master Plan

#### A World-Class Bike Plan



- Progressive
- Data Drive
- Holistic
- Opportunistic
- Engaging

#### Schedule



Overall Update	
July 1, 2015	Start Work
Sept 2015	Planning Board Approves Scope of Work
March 2016	Methodology Report to Planning Board
Nov 2016	Staff Draft
February 2017	Planning Board Worksessions
April 2017	Planning Board Draft
Sept 2017	Council Approval of Overall Update

#mcbikeplan



#### Questions?

#### **Project Manager**

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