WHERE THE RUBBER MEETS THE ROAD

A Decision-Making Tool For Bicycle Planning in Montgomery County, Maryland
A DECISION-MAKING FRAMEWORK
The Bikeway ReactMap encouraged the public to comment on the Bicycle Master Plan's preliminary bikeway recommendations. Users could view the map legend, review a brief description of bikeway facility types and add comments about the bikeway recommendations.

1,489 TOTAL COMMENTS

4,699 TOTAL PAGE VIEWS

» MCATLAS.ORG/BIKEREACT
Plan Framework

- Defining the Vision
- Achieving the Vision
- Implementing the Vision
- Monitoring the Vision
Montgomery County will become a world-class bicycling community.
1. Increase **bicycling rates** in Montgomery County.
2. Create a **highly-connected**, convenient and **low-stress** bicycling network.
3. Provide **equal access** to low-stress bicycling for all members of the community.
4. Improve the **safety** of bicycling.
Defining the Vision: Objectives

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

**Objective**
By 2043, the level of low-stress connectivity to each transit service will be 65 percent for Metrorail stations, up from 9 percent in 2018.

**Metric**
Percentage of residential units within two miles of a metro station that are connected on a low stress network

<table>
<thead>
<tr>
<th>Tier</th>
<th>Existing (%)</th>
<th>Tier 1 (%)</th>
<th>Tier 2 (%)</th>
<th>Tier 3 (%)</th>
<th>Tier 4 (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>10%</td>
<td>35%</td>
<td>55%</td>
<td>60%</td>
<td>65%</td>
</tr>
</tbody>
</table>
Achieving the Vision

DEFINING THE VISION

IMPLEMENTING THE VISION

MONITORING THE VISION

ACHIEVING THE VISION
Achieving the Vision

Bicycle Network

Bicycle Policies

Bicycle Parking

Bicycle Programs

ACHIEVING THE VISION

BIKEWAYS
BICYCLE PARKING
PROGRAMS
POLICIES
Implementing the Vision

- Defining the Vision
- Achieving the Vision
- Implementing the Vision
- Monitoring the Vision
Implementing the Vision

Upgrading Design Standards

Funding Programs

Prioritization

Implementation Mechanisms

Implementing the Vision

Funding
Design Standards
Implementation
Prioritization
Monitoring the Vision

- Defining the Vision
- Achieving the Vision
- Implementing the Vision
## Monitoring the Vision

### Goal 2: Create a Highly-Connected, Convenient and Low-Stress Bicycling Network

<table>
<thead>
<tr>
<th>Objective</th>
<th>Metric</th>
<th>Existing (2018)</th>
<th>Funded</th>
<th>High Priority</th>
<th>Tier 1</th>
<th>Tier 2</th>
<th>Tier 3</th>
<th>Tier 4</th>
<th>Build Out</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.1</td>
<td>Countywide Connectivity</td>
<td>14%</td>
<td>N/A</td>
<td>20%</td>
<td>25%</td>
<td>35%</td>
<td>50%</td>
<td>55%</td>
<td>85%</td>
</tr>
</tbody>
</table>

- **West Line**: 10% 10% 20% 35% 55% 60% 65% 75%
- **Brunswick Line**: 10% 15% 20% 30% 50% 55% 55% 75%
- **Purple Line**: 5% 10% 20% 30% 60% 65% 70% 75%
- **Corridor Cities Transitway**: 0% 0% 0% 30% 35% 40% 40% 75%

<table>
<thead>
<tr>
<th>Objective</th>
<th>Metric</th>
<th>Existing (2018)</th>
<th>Funded</th>
<th>High Priority</th>
<th>Tier 1</th>
<th>Tier 2</th>
<th>Tier 3</th>
<th>Tier 4</th>
<th>Build Out</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.2</td>
<td>Connectivity to Transit Stations</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.3</td>
<td>Connectivity to Public Schools</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

- **Elementary Schools**: 40% 40% 40% 40% 40% 45% 45% 60%
- **Middle Schools**: 25% 25% 25% 30% 30% 35% 35% 55%
- **High Schools**: 15% 15% 15% 15% 20% 20% 25% 35%
MEASURING OUR VALUES WITH GIS
Bicycle Stress Map

mcatlas.org/bikestress
LTS and Changing Connectivity
LTS and Changing Connectivity
prioritization
Prioritization

1. Are in the top 25 percent of bikeways with the highest potential demand.
2. Located in an area designated as a Bicycle Pedestrian Priority Area by the Montgomery County Council.
3. Fill in a gap within the existing bikeway network.
4. Are low in cost to construct, including most neighborhood greenways.
Prioritization – Highest Potential Demand

Four-Step Regional Travel Forecasting Model

1. Trip generation
2. Trip distribution
3. Mode choice
4. Trip assignment

- Highway and transit networks
- Zone-to-zone travel times, costs, etc.
- Land use data
- Highway and transit trips
- Traffic volumes
- Congested traffic speeds

Low-Stress Built-Out Bicycling Network

Level of Traffic Stress
- None
- Very Low
- Low

O-D Matrix
- Origin Geography
- Connection
- Destination Geography
- Level of Traffic Stress
- None
- Very Low
- Low
Prioritization – Highest Potential Demand
connectivity
countywide
Countywide Connectivity
Countywide Connectivity: Existing

- Existing Bikeways (361 Miles)
- Programmed Bikeways (23 Miles)
- Tier 1 Bikeways (56 Miles)
- Tier 2 Bikeways (59 Miles)
- Tier 3 Bikeways (135 Miles)
- Tier 4 Bikeways (83 Miles)
- Future Bikeways (488 Miles)

Existing Connectivity:
- 0% - 20%
- 21% - 40%
- 41% - 60%
- 61% - 80%
- 81% - 100%
Countywide Connectivity: Tier 4

+83 miles

55%
connectivity

public facilities
Connectivity to Public Facilities: Glenmont Station

Existing

15%

Low-Stress Connectivity

New Bikeways

Two-Mile Buffer
Connectivity to Public Facilities: Glenmont Station

Tier 4

61%

New Bikeways
Low-Stress Connectivity
lessons learned