New Challenges & Opportunities
What Citizens Want
The Need for a New Bicycle Plan
What Is Bike Montco?
The Vision
The Planned Bicycle Network
4 Focus Areas
Taking Action
From Vision to Reality
New Challenges & Opportunities

19.45

Number of miles of bicycle lanes in Montco (out of 4,512)

Road ownership

Limited Bicycle Infrastructure

Land Use

Safety & Crash History

Fragmented Gov't Control

70

The number of Montco bicyclists involved in crashes each year.
Opportunities

1,552 People per square mile in MontCo (4th highest in PA)

Emergent Bicycle Culture

Increasing Bicycle Use

1000 per day
650 per day

Institutional Support

New Challenges & Opportunities

SEPTA Cycle-Transit Plan
A Strategic Approach
April 2015
### Types of Rider in Montco

<table>
<thead>
<tr>
<th>LTS</th>
<th>Comfortable Enough for (Cyclist Type)</th>
<th>Characteristics</th>
</tr>
</thead>
</table>
| 1   | EVERYONE                                      | • Relaxing  
• Suitable for children                                |
| 2   | INTERESTED BUT CONCERNED                      | • Suitable for most adults  
• Presenting little traffic stress                         |
| 3   | ENTHUSED AND CONFIDENT                        | • Moderate traffic stress  
• Comfortable for those already riding bikes in American cities |
| 4   | STRONG AND FEARLESS                          | • High traffic stress  
• Multilane, fast-moving traffic                           |

What Citizens Want
How Do Montco Residents Rate Bicycling in the County?

- Fair or Poor: 78%
- Don’t Know: 14%
- Excellent: 8%
For Whom Should the County Be Planning?

- Interested but Concerned: 49%
- Enthused and Confident: 43%
- Highly Experienced: 4%
- No Way, No How: 4%

What Citizens Want
Wikimapping

600+ Comments
Barriers, Routes to Ride / Avoid, Etc.

What Citizens Want
Our municipalities support bicycling
A Plan For Its Time...

Assessing Bicyclist Types and Needs

There are different types of bicyclists. In the 1994 publication Selecting Roadway Design Treatments to Accommodate Bicycles, the FHWA describes bicyclists according to three basic groups:

1. **Group A (Advanced Bicyclists)** - These are experienced riders who can operate under most traffic conditions. They comprise the majority of the current users of collector and arterial streets. Advanced bicyclists are best served by sufficient operating space on the roadway or shoulder to reduce the need for either the bicyclist or the motor vehicle to change position when passing.

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**Figure 7**

**Planned Regional Trails**

- Planned Regional Trails
- Bicycle Routes
- Expressways / Freeways

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The Need for a New Bicycle Plan

**EDUCATION**

**Introduction**

To fully achieve the Year 2020 Vision, roads throughout Montgomery County must be safe for bicyclists. People must perceive the roads as safe places to bicycle, and they must know how to use them safely. Motorists must recognize bicyclists as legitimate road users.

The Education component of the Plan focuses on creating informative and instructional programs that teach road user awareness and bicycle safety skills. Education efforts should be aimed at two distinct road user groups:

1. **Bicyclists** - Bicyclists' programs generally teach safe riding practices, rules of the road, bicycle handling skills, and bicycle maintenance (e.g., cyclists can keep their bikes in safe operating condition). They should be a regular part of the school curriculum and be offered to the general public. Bike rodeos are an example of an informal instructional program geared toward youth. These training courses and workshops teach people of all ages how to bicycle safely, confidently, and lawfully, and the instruction is reinforced in subsequent years. Training adults on proper bicycling behavior also should be provided. "Elective cycling" courses should be offered to instruct adults how to ride in everyday traffic situations using advanced and defensive cycling skills.

2. **Motorists** - Motorists' programs basically strive to create a greater awareness of bicyclists' rights. They range from public relations campaigns involving radio, newspaper, and television announcements to courses that teach drivers how to safely coexist with bicyclists. Strategically-placed...
...But We Need a New Strategy
What is Bike Montco?
What is Bike Montco?

Guiding Principles

It must be visual

Bike Montco uses pictures and symbols to illustrate its points whenever possible.

It must be concise

Bike Montco strives to avoid technical language and state its concepts clearly.

It must be practical

Bike Montco supports incremental progress and its recommendations are flexible.

It must be county led

Bike Montco will direct the actions of Montgomery County and foster partnerships for successful implementation.

It must be inclusive

Bike Montco plans for everyone and avoids favoring the needs of specific types of riders over others.
Framework for municipal bicycle planning

Emphasizes physical improvements to roads

What is Bike Montco?
“In Montgomery County, bicycling will be a fundamental part of daily life where all bicyclists can enjoy a safe, convenient ride every time they put their foot on a pedal.”
The Vision

Bike Montco’s
6 Themes

CONNECTED COMMUNITIES
EQUITY
SAFETY
EDUCATION AND ENFORCEMENT
HEALTH AND ENVIRONMENTAL SUSTAINABILITY
VIBRANT ECONOMY
How to Plan a Network

- Maximize access to important destinations
- Maximize connections between roads and existing or proposed bicycle trails
- Incorporate important and desirable bicycle routes identified by the public (Wiki and through public meetings)
- Avoid roads with incompatible surfaces, e.g. bricks and cobble stones
- Utilize existing bicycle lanes, routes and shoulders where possible
- Incorporate road segments that represent the top 20 percent of road segments that would link the islands of low stress as identified by DVRPC.
- Incorporate scenic roads frequently used by recreational cyclists
- Connect to existing and planned bicycle networks in surrounding counties and local municipalities
- Avoid insurmountable roadblocks where bicycle facilities cannot easily be installed
DVRPC Bicycle LTS & Connectivity Analysis

Sarah Moran, AICP
The Planned Bicycle Network
The Network Is 783 Total Miles (out of 4,512)...

50% arterials
30% collectors
20% local

585 mi. 160 mi. 37 mi.

Uses many PennDOT roads
Yellow priority routes:

• Connect trails

• Provide county-wide mobility

• Enable the most low-stress connections

• Should be targeted as soon as possible
# Recommended Bicycle Facilities

<table>
<thead>
<tr>
<th>Average Daily Trips (ADT)</th>
<th>ROADWAY TYPE</th>
<th>25 MPH</th>
<th>35 MPH</th>
<th>40-55 MPH</th>
</tr>
</thead>
<tbody>
<tr>
<td>Least</td>
<td>LOCAL RURAL / SCENIC</td>
<td>Marked shared lane</td>
<td>Paved shoulder</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Shared lane (no provisions)</td>
<td>Marked shared lane</td>
<td></td>
</tr>
<tr>
<td></td>
<td>LOCAL URBAN</td>
<td>Bicycle lane</td>
<td>Buffered bicycle lane</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Bicycle boulevard</td>
<td>Bicycle lane</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Marked shared lane</td>
<td>Marked shared lane</td>
<td></td>
</tr>
<tr>
<td></td>
<td>COLLECTOR RURAL / SCENIC</td>
<td>Buffered bicycle lane</td>
<td>Buffered bicycle lane</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Bicycle lane</td>
<td>Bicycle lane</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Paved shoulder</td>
<td>Paved shoulder</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Wide outside lane</td>
<td>Wide outside lane</td>
<td></td>
</tr>
<tr>
<td></td>
<td>COLLECTOR URBAN</td>
<td>Protected bicycle lane</td>
<td>Protected bicycle lane</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Buffered bicycle lane</td>
<td>Buffered bicycle lane</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Bicycle lane</td>
<td>Bicycle lane</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>Paved shoulder</td>
<td>Paved shoulder</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Wide outside lane</td>
<td>Wide outside lane</td>
<td></td>
</tr>
<tr>
<td></td>
<td>MINOR ARTERIAL</td>
<td>Protected bicycle lane</td>
<td>Protected bicycle lane</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Buffered bicycle lane</td>
<td>Buffered bicycle lane</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Bicycle lane</td>
<td>Bicycle lane</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>Paved shoulder</td>
<td>Paved shoulder</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Wide outside lane</td>
<td>Wide outside lane</td>
<td></td>
</tr>
<tr>
<td></td>
<td>PRINCIPAL ARTERIAL</td>
<td>Protected bicycle lane</td>
<td>Protected bicycle lane</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Buffered bicycle lane</td>
<td>Buffered bicycle lane</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Paved shoulder</td>
<td>Paved shoulder</td>
<td></td>
</tr>
</tbody>
</table>

**SHARED USE PATHS** are suitable for all roadway types and speeds but need to be considered carefully as they can create other potential conflicts when located adjacent to streets.

- *paved shoulders on arterial roads should be at least 6 feet wide

**NOTE:** This table lists the suggested bicycle facilities in order of most protection to least protection. Whenever possible, the facility that provides the most protection should be utilized.
Detailed Options

- Bicycle Lanes (Standard)
- Sharrows
- Protected Bicycle Lanes
- Shared Use Path

The Planned Bicycle Network
4 Focus Areas

NOTE: NORTHBOUND BIKE LANE AND SOUTHBOUND SHARROWS PROPOSED FOR TENNIS AVENUE.

NOTE: A COMBINATION OF SIGNAGE, SHARED MARKINGS, AND SIMILAR TREATMENTS ARE ENCOURAGED FOR NEIGHBORHOOD STREETS.
GOAL 1: Connect communities with a robust network that supports bicycling as a daily transportation option.

**Objective 1:** Expand the bicycle network to connect trails, urban centers, and transportation hubs.

These actions address the need for complete streets in Montgomery County and partner transit systems. Building the planned bicycle network with others.

**Objective 2:** Support bicycling as a legitimate travel mode.

It is not enough to simply assemble the network. Giving the public tools that are accessible and ubiquitous give it legitimacy and allows people.

**Objective 3:** Integrate the bicycle network with transit and other transportation systems.

The more options bicyclists have to connect to a network of transportation, the farther they can go. Bicycling is an ideal partner for bicycling as long as the network accommodates it.

### CONNECTED COMMUNITIES

**Goal 1:** Connect communities with a robust network that supports bicycling as a daily transportation option.

| Objective #3: Expand the Bicycle Network to Connect Important Destinations, Trails, Urban Centers, and Transportation Hubs |

<table>
<thead>
<tr>
<th>Task</th>
<th>Action Item</th>
<th>Lead County Department</th>
<th>Timeframe</th>
<th>Performance Metrics</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Adopt a complete streets policy for county-owned roads.</td>
<td>Planning Commission Roads and Bridges</td>
<td>Medium</td>
<td>Adoption of a policy by the County Commissioners.</td>
</tr>
<tr>
<td>B</td>
<td>Expand the county trail system and on-street bicycle facilities on county roads.</td>
<td>Planning Commission Roads and Bridges</td>
<td>Long</td>
<td>Number of miles of county-owned on-road bicycle infrastructure &amp; trails.</td>
</tr>
<tr>
<td>C</td>
<td>Complete the Circuit Trails and other regional bicycling routes.</td>
<td>Planning Commission Roads and Bridges</td>
<td>Long</td>
<td>Number of miles of Circuit Trails.</td>
</tr>
<tr>
<td>D</td>
<td>Support community partnerships to create municipal trails and on-street bicycling facilities on locally owned roads.</td>
<td>Planning Commission</td>
<td>Recurring</td>
<td>Number of miles of municipally owned on-road bicycle infrastructure.</td>
</tr>
<tr>
<td>E</td>
<td>Incorporate on-road bicycling facilities into PennDOT’s surface treatment program and through projects on the regional Transportation Improvement Program.</td>
<td>Planning Commission</td>
<td>Recurring</td>
<td>Number of miles of state-owned on-road bicycle infrastructure.</td>
</tr>
</tbody>
</table>

### Objective #2: Support Bicycling as a Legitimate Travel Mode

<table>
<thead>
<tr>
<th>Task</th>
<th>Action Item</th>
<th>Lead County Department</th>
<th>Timeframe</th>
<th>Performance Metrics</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Create a printed and electronic countywide map that highlights potential commuter routes, public transportation connections, and destinations via available trails and on-street networks.</td>
<td>Planning Commission</td>
<td>Short</td>
<td>Creation of document.</td>
</tr>
<tr>
<td>B</td>
<td>Create a county publication of municipal tools on recommended bicycle policies, project funding, and network implementation.</td>
<td>Planning Commission</td>
<td>Short</td>
<td>Creation of document.</td>
</tr>
<tr>
<td>C</td>
<td>Establish a policy for electric bikes on county trails.</td>
<td>Parks &amp; Heritage Services</td>
<td>Short</td>
<td>Creation of county policy.</td>
</tr>
<tr>
<td>D</td>
<td>Support the expansion of bike share programs and companies within Montgomery County.</td>
<td>Planning Commission</td>
<td>Medium</td>
<td>Number of available bike share stations and/or bicyciles.</td>
</tr>
</tbody>
</table>

### Objective #3: Integrate the Bicycle Network with Transit and Other Transportation Systems

<table>
<thead>
<tr>
<th>Task</th>
<th>Action Item</th>
<th>Lead County Department</th>
<th>Timeframe</th>
<th>Performance Metrics</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Promote bicycling routes using wayfinding signage and social media mapping.</td>
<td>Planning Commission</td>
<td>Short</td>
<td>Number of signs erected.</td>
</tr>
<tr>
<td>B</td>
<td>Coordinate with SEPTA and PAT to accommodate bicycles on transit vehicles and bike facilities at stations.</td>
<td>Planning Commission</td>
<td>Medium</td>
<td>Number of times and trains with dedicated bicycle storage; increase in number of bicycle parking spaces, other infrastructure.</td>
</tr>
</tbody>
</table>
GOAL #3: Ensure that bicycling is safe for all.

Objective 1: Reduce bicycle-related injuries and fatalities.

Improving safety starts with accurate current reporting for bicycling crashes. A coordinated effort to close these gaps in planning, and capital investment, will reduce related incidents.

Objective 2: Ensure the bicycle network is maintained well.

Even the best facilities need regular maintenance to ensure that riding surfaces are not too smooth to cause blisters, or that cracks in the pavement are repaired. Grates, and poor signage are prevented. Routine maintenance ensures maximum safety for all users.

SAFETY

Goal #3: Ensure that bicycling is safe for all.

OBJECTIVE #1: REDUCE BICYCLE-RELATED INJURIES AND FATALITIES

<table>
<thead>
<tr>
<th>Task</th>
<th>Action Item</th>
<th>Lead County Department</th>
<th>Timeframe</th>
<th>Performance Metrics</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.1.A</td>
<td>Track countywide crash data to work with state and municipal partners to implement safety improvements along roads and trails.</td>
<td>Planning Commission</td>
<td>Short</td>
<td>Decrease in the number of bicycle fatalities</td>
</tr>
<tr>
<td>3.1.B</td>
<td>Partner with law enforcement and health care providers to improve bicycle crash reporting.</td>
<td>Public Safety</td>
<td>Short</td>
<td>Improvement in accuracy of crash data</td>
</tr>
<tr>
<td>3.1.C</td>
<td>Develop benchmarks, goals, and long-term action items for reducing/eliminating bicycle-related crashes on county-owned roads and trails.</td>
<td>Planning Commission Roads and Bridges Parks &amp; Heritage Services</td>
<td>Long</td>
<td>Creation of plan</td>
</tr>
<tr>
<td>3.1.D</td>
<td>Upgrade county road/trail crossings to reflect best practices in safe bicycle facility design.</td>
<td>Parks &amp; Heritage Services Planning Commission</td>
<td>Long</td>
<td>Number of crossings improved</td>
</tr>
</tbody>
</table>

OBJECTIVE #2: ENSURE THE BICYCLE NETWORK IS MAINTAINED WELL

<table>
<thead>
<tr>
<th>Task</th>
<th>Action Item</th>
<th>Lead County Department</th>
<th>Timeframe</th>
<th>Performance Metrics</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.2.A</td>
<td>Develop maintenance plans for bicycle facilities on county-owned roads and trails.</td>
<td>Parks &amp; Heritage Services Roads and Bridges</td>
<td>Short</td>
<td>Creation of maintenance plans</td>
</tr>
<tr>
<td>3.2.B</td>
<td>Advocate for increased municipal liquid fuels funding for maintenance of locally owned roads.</td>
<td>Planning Commission</td>
<td>Recurring</td>
<td>Percentage increase in funding over time</td>
</tr>
</tbody>
</table>
Goal #6: Create and nurture a county bicycling industry.

**Objective 1**
Grow bicycle tourism and spending.
*Marketing Montgomery County as a destination for cycling is major part of crafting a bicycling economy.*

**Objective 2**
Improve bicycle access to economic generators and attract new businesses that value bicycling.
*Building an economy around bicycling requires creative and effective ways to attract businesses.*

 Montgomery County has numerous creative and effective ways to attract businesses. As of 2020, with a tourism board, and two transportation associations that can be a critical resource for the county to attract and retain forward-thinking bicycle businesses.

---

### VIBRANT ECONOMY

**Goal #6: Create and nurture a county bicycling industry.**

#### OBJECTIVE #1: GROW BICYCLE TOURISM AND SPENDING

<table>
<thead>
<tr>
<th>Task</th>
<th>Action Item</th>
<th>Lead County Department</th>
<th>Timeframe</th>
<th>Performance Metrics</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Create, sign, and brand bicycle tourism routes throughout the county.</td>
<td>Planning Commission Valley Forge Tourism and Convention Board</td>
<td>Short</td>
<td>Number of routes created</td>
</tr>
<tr>
<td>B</td>
<td>Establish Montgomery County bicycle tourism marketing campaigns aimed at regional and national audiences.</td>
<td>Valley Forge Tourism and Convention Board</td>
<td>Medium</td>
<td>Creation of marketing campaign</td>
</tr>
<tr>
<td>C</td>
<td>Pursue the American League of Bicyclists “Bicycle-Friendly Community” designation for the county and other municipalities.</td>
<td>Planning Commission</td>
<td>Medium</td>
<td>Certification achievement</td>
</tr>
<tr>
<td>D</td>
<td>Coalesce the county’s many competitive bicycle races into an annual series for promotional purposes.</td>
<td>Valley Forge Tourism and Convention Board</td>
<td>Medium</td>
<td>Creation of an umbrella organization or promotional effort</td>
</tr>
<tr>
<td>E</td>
<td>Assist and incentivize businesses to locate along trails and major on-road bicycle routes.</td>
<td>Commerce</td>
<td>Long</td>
<td>Number of businesses located adjacent to trails and major routes</td>
</tr>
<tr>
<td>F</td>
<td>Attract companies in the bicycling industry to locate to Montgomery County.</td>
<td>Commerce</td>
<td>Long</td>
<td>Number of bicycle industry employees</td>
</tr>
</tbody>
</table>

#### OBJECTIVE #2: IMPROVE BICYCLE ACCESS TO ECONOMIC GENERATORS AND ATTRACT NEW BUSINESSES THAT VALUE BICYCLING

<table>
<thead>
<tr>
<th>Task</th>
<th>Action Item</th>
<th>Lead County Department</th>
<th>Timeframe</th>
<th>Performance Metrics</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Develop planning tools to quantify the economic benefits of enhancing bicycle access to downtowns and locating homes and businesses near trails and bicycle facilities.</td>
<td>Planning Commission</td>
<td>Short</td>
<td>Creation of tools</td>
</tr>
<tr>
<td>B</td>
<td>Create model zoning and land development ordinances that enable bicycling and expand the planned bicycle network.</td>
<td>Planning Commission</td>
<td>Short</td>
<td>Creation of model ordinances</td>
</tr>
<tr>
<td>C</td>
<td>Empower businesses to expand bicycle access and amenities at their facilities.</td>
<td>Planning Commission Commerce</td>
<td>Recurring</td>
<td>Number of businesses involved or engaged</td>
</tr>
<tr>
<td>D</td>
<td>Assist municipal efforts to improve bicycle infrastructure in commercial and downtown areas.</td>
<td>Planning Commission</td>
<td>Recurring</td>
<td>Number of miles of on-road bicycle markings in commercial districts</td>
</tr>
</tbody>
</table>

Notes: Short (1-4 yrs) | Med. (5-10 yrs) | Long (10+ yrs) | Recurring
...is Montgomery County’s Plan.
...will have a champion.
...needs to be effective.
...must remain relevant.
...requires investment.
How Can *Bike Montco* Be Implemented?

New TIP Projects  
PennDOT Resurfacings  
Land Development  
County & Other Grant Programs  
Municipal Efforts  

From Vision to Reality
Bike Montco can’t go it alone.

www.planning.montcopia.org/BikeMontco
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