

# Building a Bike-Friendly Montgomery County



## Bike Montco

The Bicycle Plan for Montgomery County

- 
- **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**



# Challenges

Limited  
Bicycle  
Infrastructure

{ 19.45 }

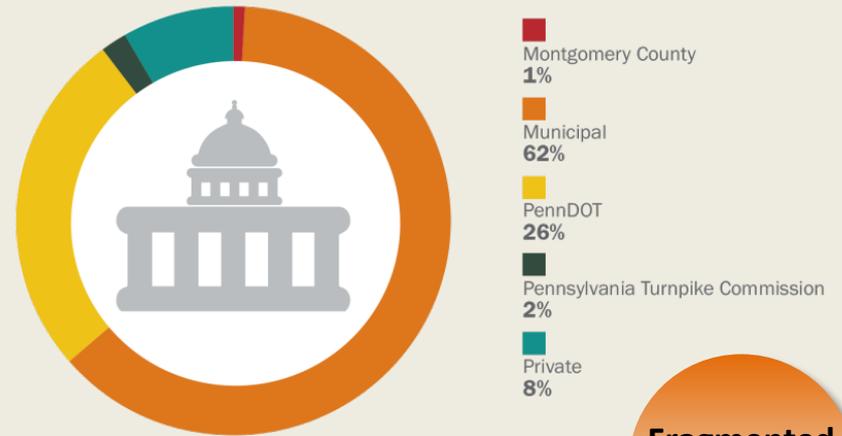
Number of miles of  
bicycle lanes in Montco  
(out of 4,512)

Land  
Use

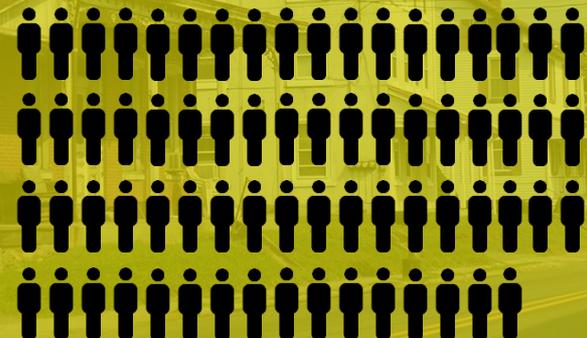
70  
The number of Montco  
bicyclists involved in crashes  
each year.

Safety &  
Crash  
History

## Road ownership



Fragmented  
Gov't  
Control



# Opportunities

Demographic  
Changes

# 1,552

People per square  
mile in MontCo  
(4<sup>th</sup> highest in PA)



Increasing  
Bicycle Use

1000  
per day

650  
per day

Emergent  
Bicycle  
Culture



Institutional  
Support



New Challenges & Opportunities



# Types of Rider in Montco

LTS	Comfortable Enough for (Cyclist Type)	Characteristics
1	<b>EVERYONE</b>	<ul style="list-style-type: none"> <li>Relaxing</li> <li>Suitable for children</li> </ul>
2	<b>INTERESTED BUT CONCERNED</b>	<ul style="list-style-type: none"> <li>Suitable for most adults</li> <li>Presenting little traffic stress</li> </ul>
3	<b>ENTHUSED AND CONFIDENT</b>	<ul style="list-style-type: none"> <li>Moderate traffic stress</li> <li>Comfortable for those already riding bikes in American cities</li> </ul>
4	<b>STRONG AND FEARLESS</b>	<ul style="list-style-type: none"> <li>High traffic stress</li> <li>Multilane, fast-moving traffic</li> </ul>

7%

32%

46%

15%



# 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%



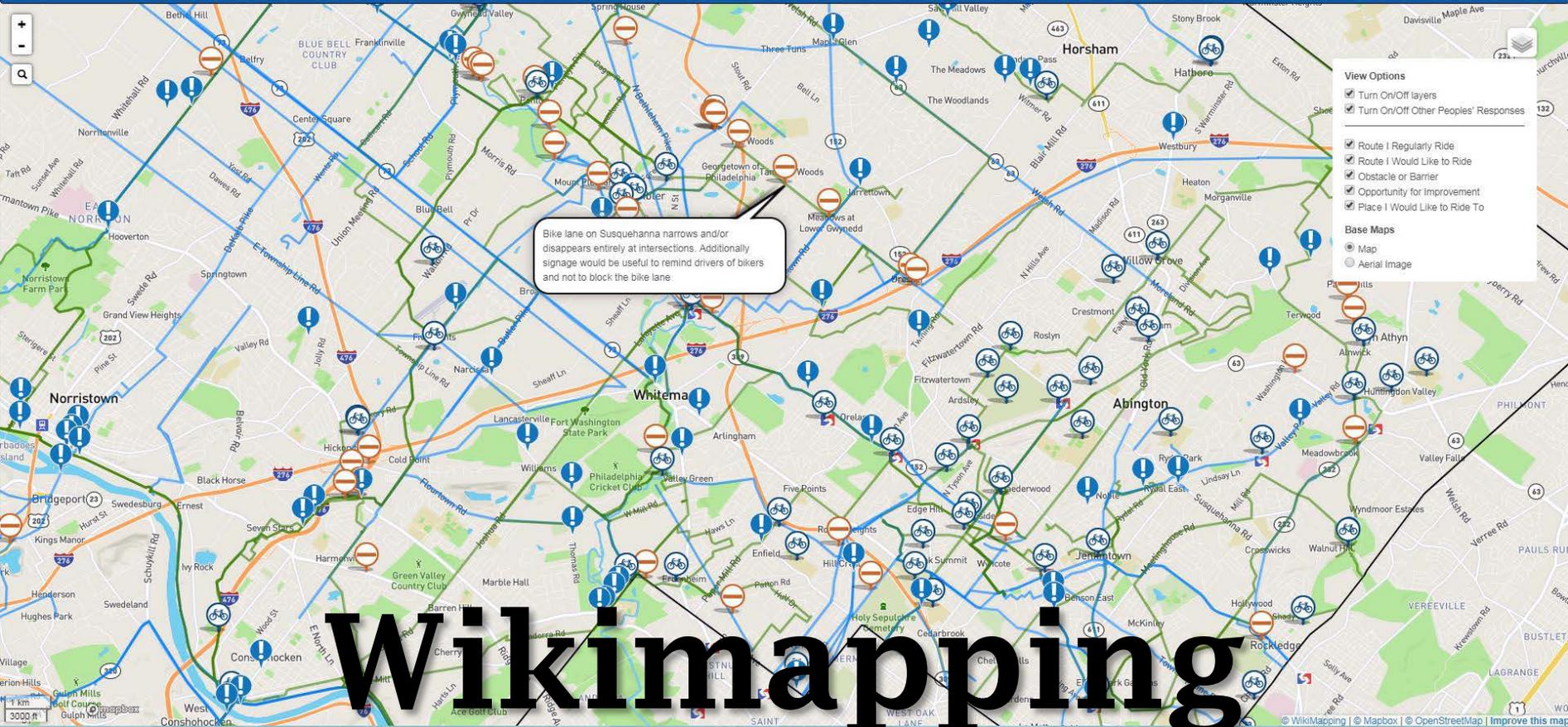
Enthusied and Confident  
43%



Highly Experienced  
4%



No Way, No How  
4%



# Wikimapping

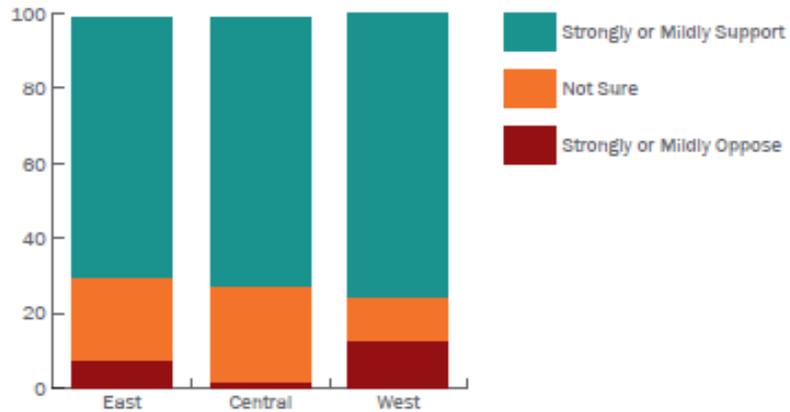
600+ Comments

Barriers, Routes to Ride / Avoid, Etc.

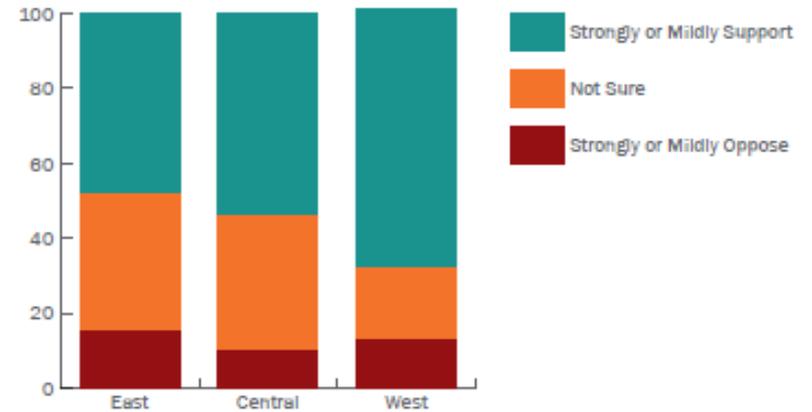
What Citizens Want



Municipal support for separate biking trails



Municipal support for on-road bike lanes



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.

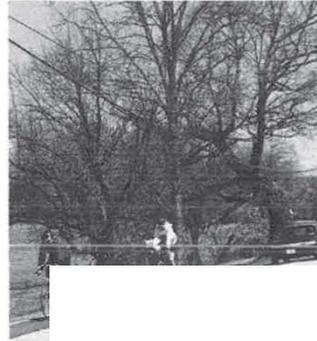
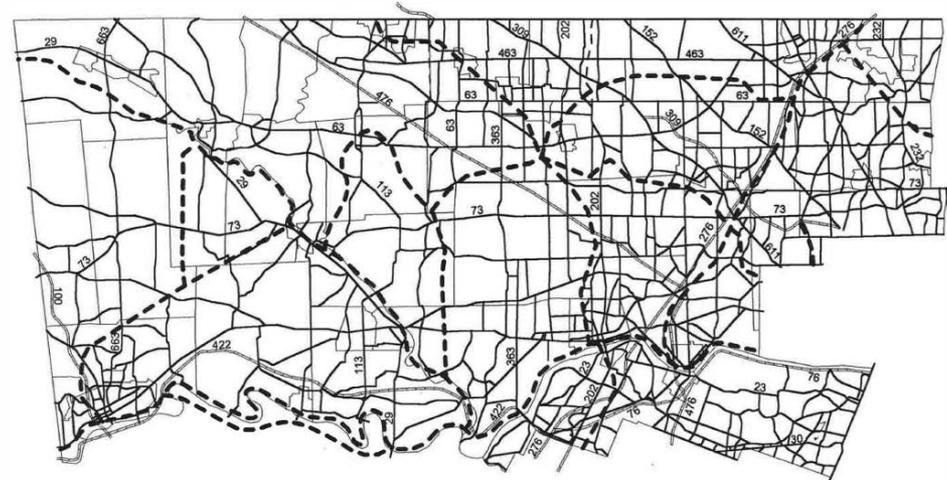


Figure 7

## Planned Regional Trails



- Planned Regional Trails
- Bicycle Routes
- Expressways / Freeways

Scale: 1 inch equals 3.88 miles  
 Base map prepared by the  
 Montgomery County Planning Commission  
 April 1996

## EDUCATION

Section 6

### 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 Four Es 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:



Pamphlets and handouts are effective tools for teaching bicycling safety.

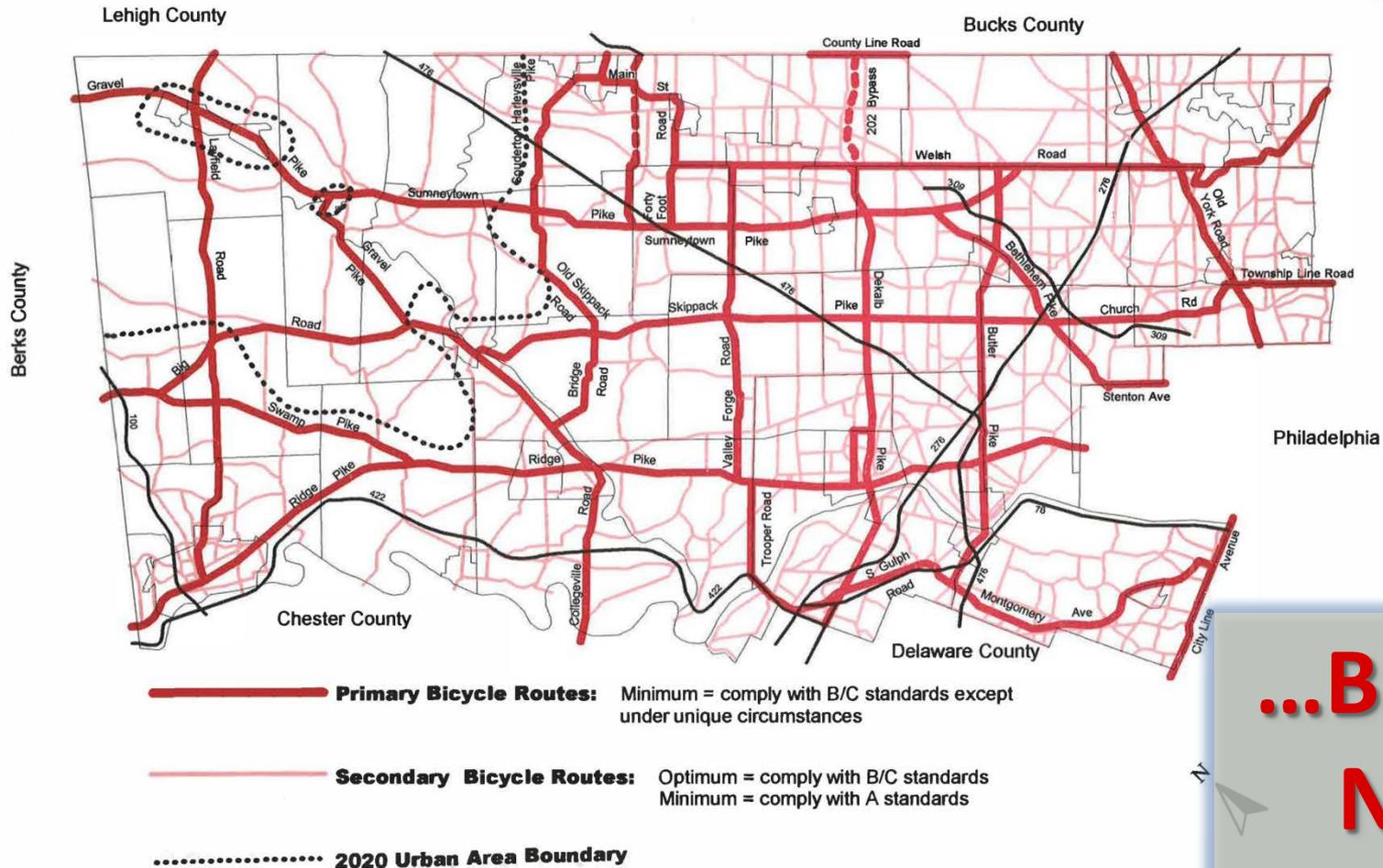
1. *Bicyclists* - Bicyclists' programs generally teach safe riding practices, rules of the road, bicycle handling skills, and bicycle maintenance (so cyclists can keep their bikes in safe operating condition). They should be a regular part of the school curriculum and be offered to the general public. Bike rodeos are an example of an informal instructional program geared toward youth. These training courses and workshops teach people at an early age 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. "Effective 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 placing

## The Need for a New Bicycle Plan

A Bi  
 Mon  
 PAR

Figure 6

# Recommended Bicycle Routes



**...But We  
Need a  
New  
Strategy**

# Bike Montco

## The **NEW** Bicycle Plan for Montgomery County



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





**CONNECTED  
COMMUNITIES**



**EQUITY**



**SAFETY**



**EDUCATION AND  
ENFORCEMENT**



**HEALTH AND  
ENVIRONMENTAL SUSTAINABILITY**



**VIBRANT ECONOMY**

The Vision



# Bike Montco's 6 Themes



# How to Plan a Network



- ▶ Maximize access to important destinations



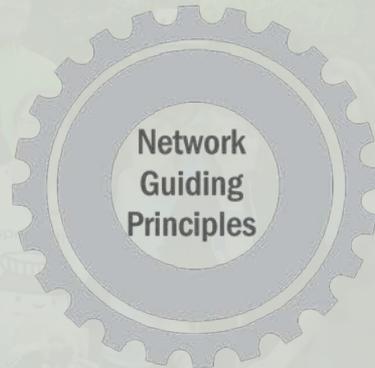
- ▶ Maximize connections between roads and existing or proposed bicycle trails



- ▶ 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 important and desirable bicycle routes identified by the public (Wiki and through public meetings)



- ▶ Incorporate scenic roads frequently used by recreational cyclists



- ▶ Avoid roads with incompatible surfaces, e.g. bricks and cobble stones



- ▶ Connect to existing and planned bicycle networks in surrounding counties and local municipalities



- ▶ Utilize existing bicycle lanes, routes and shoulders where possible

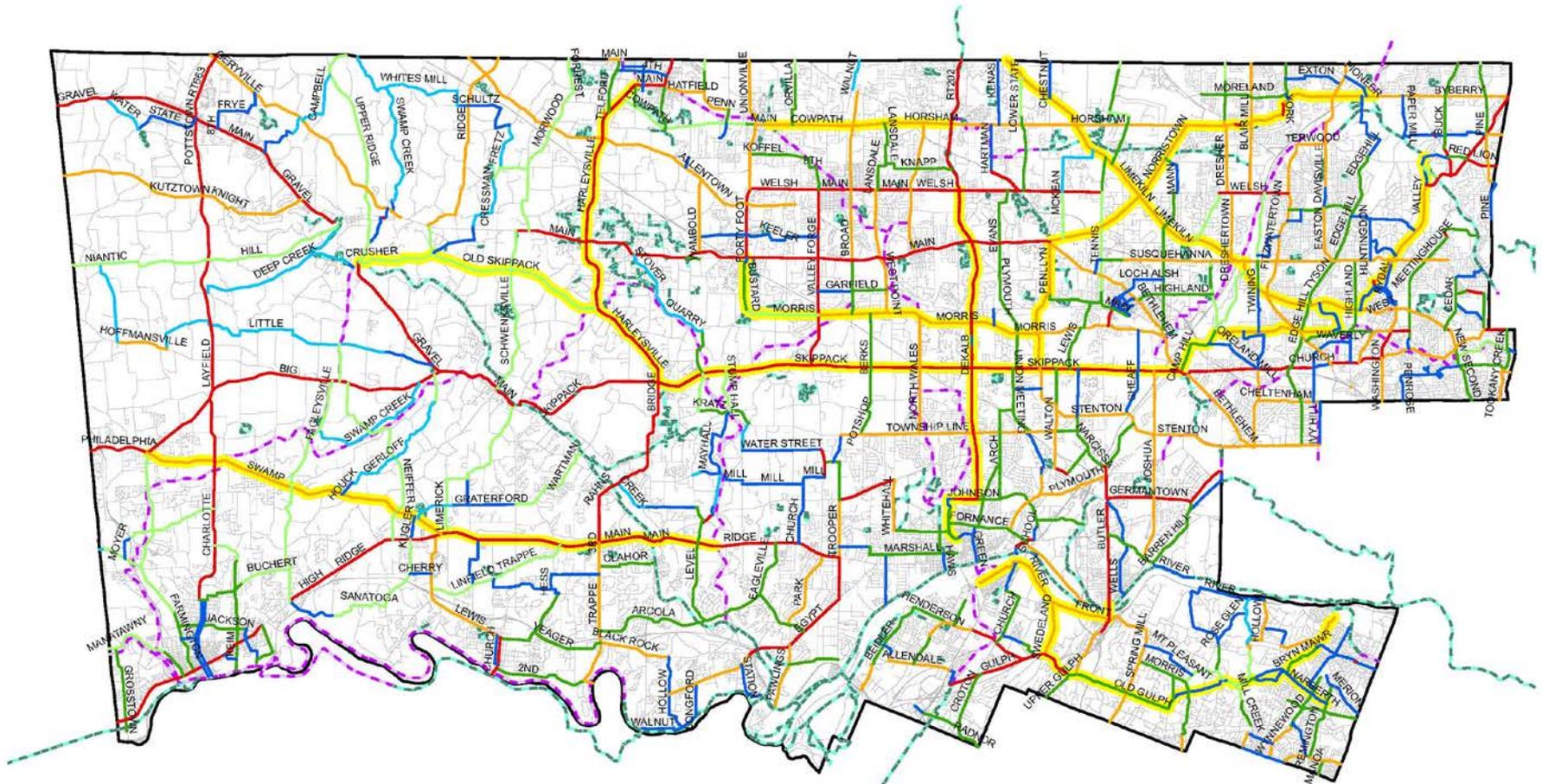


- ▶ Avoid insurmountable roadblocks where bicycle facilities cannot easily be installed



# DVRPC Bicycle LTS & Connectivity Analysis

Sarah Moran, AICP



- ↗ Local Rural/Scenic
- ↗ Local Urban
- ↗ Collector Rural/Scenic
- ↗ Collector Urban
- ↗ Minor Arterial
- ↗ Principal Arterial
- ↗ Priority Bike Route
- ↗ Existing Trail
- ↗ Proposed Trail

# The Planned Bicycle Network

The Planned Bicycle Network



# The Network Is 783 Total Miles (out of 4,512)...



50%  
arterials



30%  
collectors



20%  
local

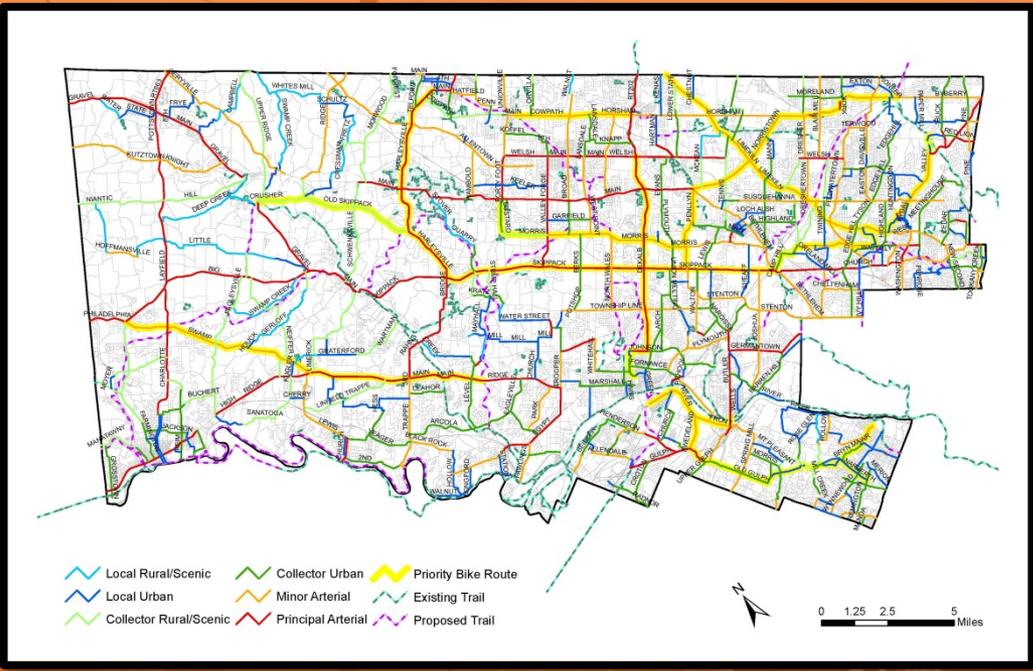


585 mi.



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

Recommended facility types for the planned bicycle network

Average Daily Trips (ADT)	ROADWAY TYPE	SPEED LIMIT		
		25 MPH	35 MPH	40-55 MPH
Least  Most	<b>LOCAL RURAL / SCENIC</b>	Marked shared lane Shared lane (no provisions)	Paved shoulder Marked shared lane Shared lane (no provisions)	
	<b>LOCAL URBAN</b>	Bicycle lane Bicycle boulevard Marked shared lane	Buffered bicycle lane Bicycle lane Marked shared lane	
	<b>COLLECTOR RURAL / SCENIC</b>	Buffered bicycle lane Bicycle lane Paved shoulder Wide outside lane	Buffered bicycle lane Bicycle lane Paved shoulder Wide outside lane	
	<b>COLLECTOR URBAN</b>	Protected bicycle lane Buffered bicycle lane Bicycle lane Paved shoulder Wide outside lane	Protected bicycle lane Buffered bicycle lane Bicycle lane Paved shoulder Wide outside lane	
	<b>MINOR ARTERIAL</b>	Protected bicycle lane Buffered bicycle lane Bicycle lane Paved shoulder Wide outside lane	Protected bicycle lane Buffered bicycle lane Bicycle lane Paved shoulder* Wide outside lane	Protected bicycle lane Buffered bicycle lane Paved shoulder*
	<b>PRINCIPAL ARTERIAL</b>		Protected bicycle lane Buffered bicycle lane Paved shoulder*	Protected bicycle lane Buffered bicycle lane Paved shoulder*

**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

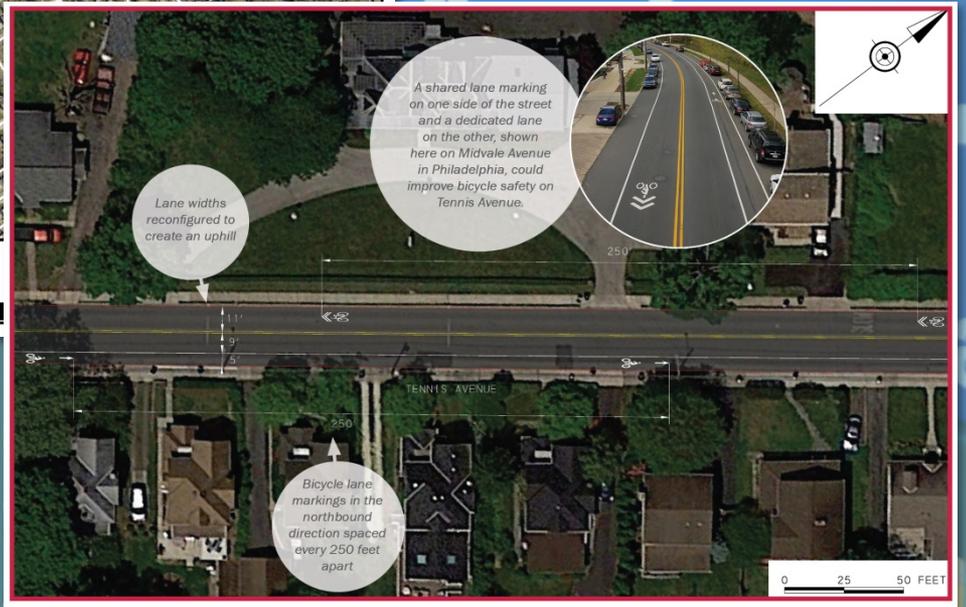
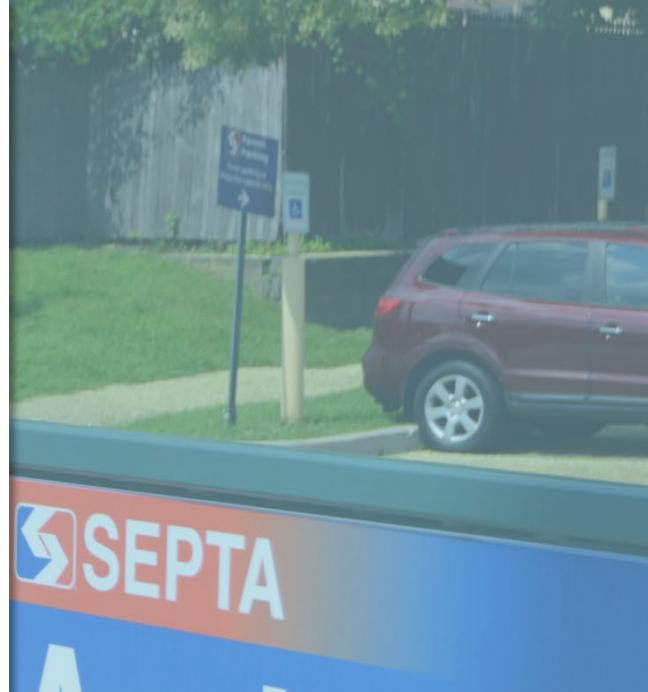
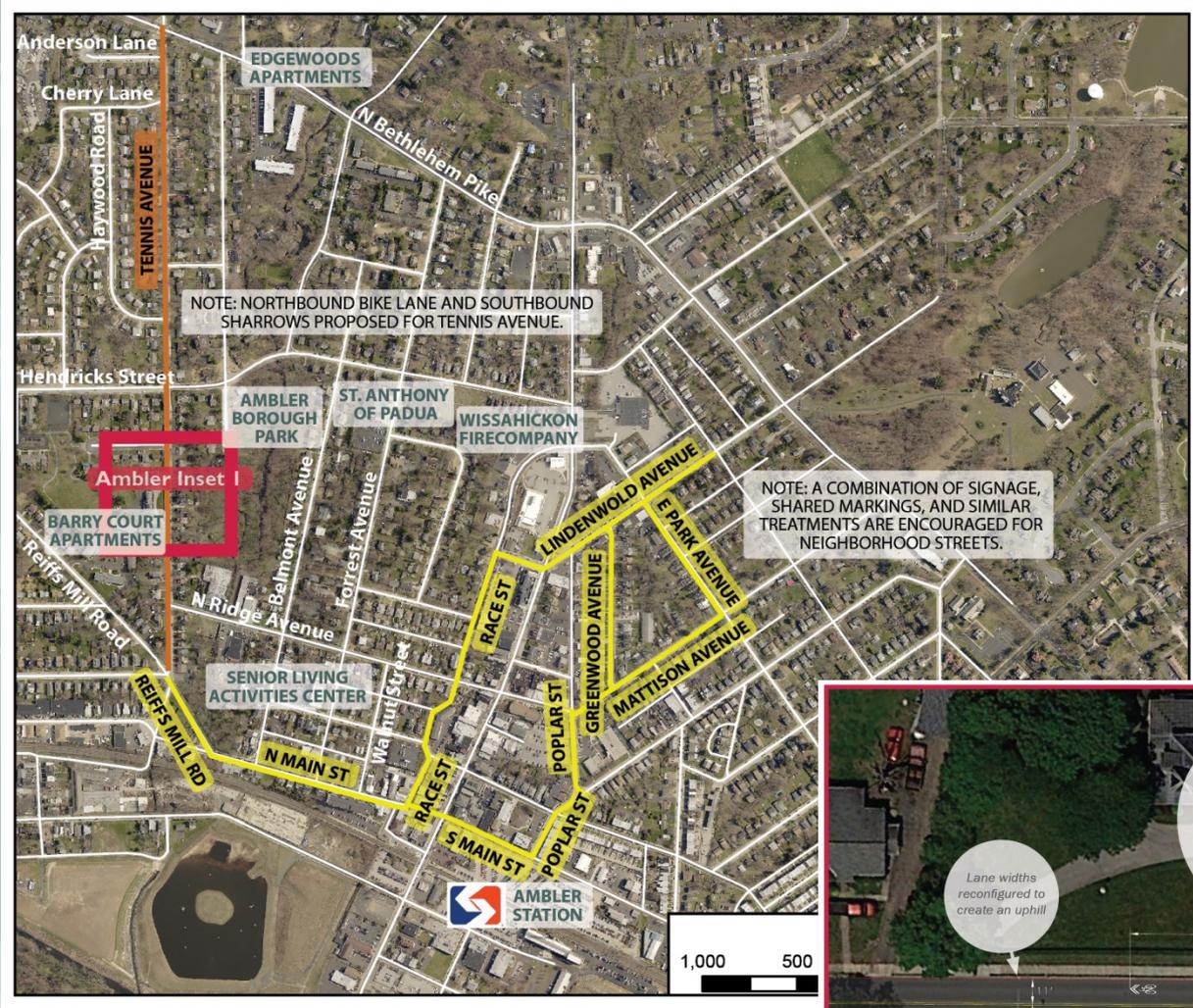


**Shared Use Path  
Protected Bicycle Lane(s)**



4 Focus Areas





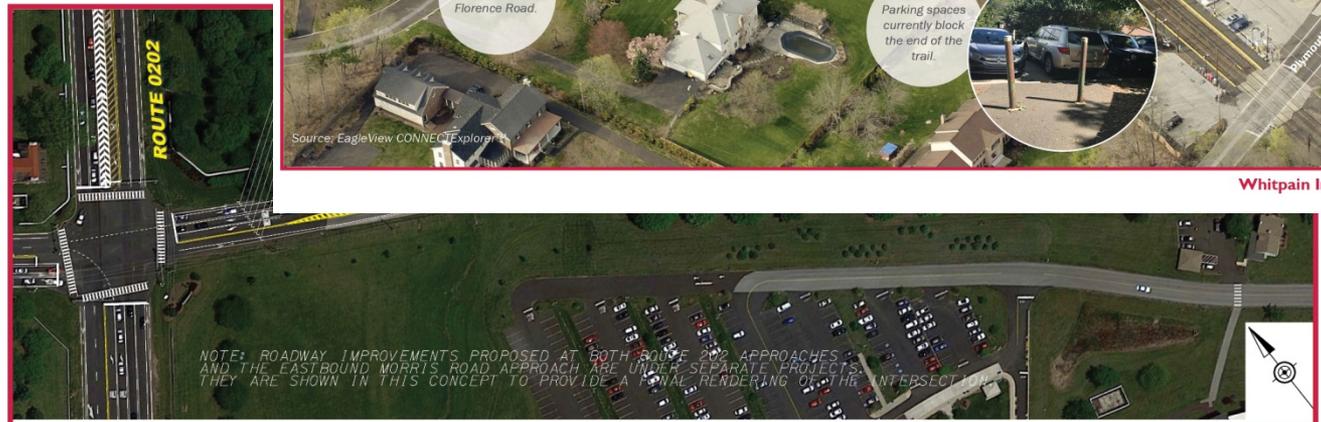
4 Focus Areas



Ambler Inset I



Whitpain Inset 2



Whitpain Inset I





## 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 a robust network in Montgomery County and partner transportation agencies. Building the planned bicycle network with others.

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

It is not enough to simply assemble trails. Giving the public tools that make bicycling more accessible and ubiquitous give it legitimacy for all people.

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

The more options bicyclists have to connect to other modes of transportation, the farther they can travel. Transit is an ideal partner for bicycling as long as it accommodates it.



### CONNECTED COMMUNITIES

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

#### OBJECTIVE #1: EXPAND THE BICYCLE NETWORK TO CONNECT IMPORTANT DESTINATIONS, TRAILS, URBAN CENTERS, AND TRANSPORTATION HUBS

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

#### OBJECTIVE #2: SUPPORT BICYCLING AS A LEGITIMATE TRAVEL MODE

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

#### OBJECTIVE #3: INTEGRATE THE BICYCLE NETWORK WITH TRANSIT AND OTHER TRANSPORTATION SYSTEMS

Task	Action Item	Lead County Department	Timeframe	Performance Metrics
A	Promote bicycling routes using wayfinding signage and social media mapping.	Planning Commission	Short	Number of signs erected
B	Coordinate with SEPTA and PART to accommodate bicycles on transit vehicles and bike facilities at stations.	Planning Commission	Medium	Number of buses and trains with dedicated bicycle storage; Increase in number of bicycle parking spaces, other infrastructure

Short (1-4 yrs)    Med. (5-10 yrs)    Long (10+ yrs)    Recurring

Taking Action





## 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 through 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 damaged and are readable. Cracks in the pavement, potholes, grates, and poor signing are prevented. Routine maintenance ensures maximum safety.

## SAFETY

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

#### OBJECTIVE #1: REDUCE BICYCLE-RELATED INJURIES AND FATALITIES

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

#### OBJECTIVE #2: ENSURE THE BICYCLE NETWORK IS MAINTAINED WELL

Task	Action Item	Lead County Department	Timeframe	Performance Metrics
3.2.A	Develop maintenance plans for bicycle facilities on county-owned roads and trails.	Parks & Heritage Services Roads and Bridges	Short	Creation of maintenance plans
3.2.B	Advocate for increased municipal liquid fuels funding for maintenance of locally owned roads.	Planning Commission	Recurring	Percentage increase in funding over time

Short (1-4 yrs)    Med. (5-10 yrs)    Long (10+ yrs)    Recurring





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

### Objective 1 Grow bicycle tourism and spending.

Marketing Montgomery County as a bicycle destination is a major part of crafting a bicycling industry. Bringing established names and start-ups into the national bicycling industry to set up successful approaches can create a critical mass.

### Objective 2 Improve bicycle access to economic generators and attract new businesses that value bicycling.

Building an economy around bicycling and attracting businesses outside of the industry will create jobs and their employees healthy options for commuting. Montgomery County has numerous economic generators, a tourism board, and two transportation associations that can be a critical resource for the county to attract and retain forward-thinking businesses.

## VIBRANT ECONOMY

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

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

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

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

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

Short (1-4 yrs)    Med. (5-10 yrs)    Long (10+ yrs)    Recurring

Taking Action



Friends don't let  
friends ride junk.



...is Montgomery County's Plan.



...will have a champion.



...needs to be effective.



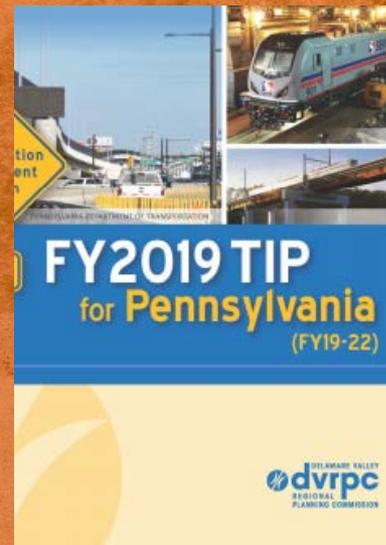
...must remain relevant.



...requires investment.



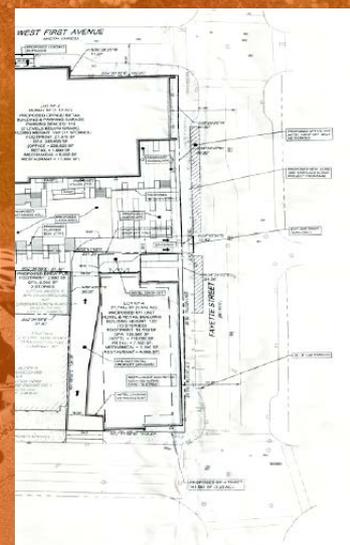
# How Can *Bike Montco* Be Implemented?



New TIP Projects



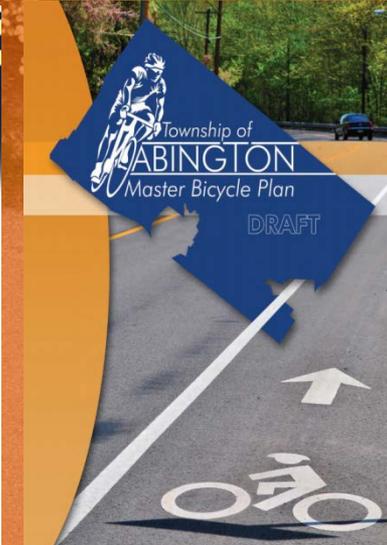
PennDOT Resurfacings



Land Development



County & Other Grant Programs



Municipal Efforts

From Vision to Reality





*Bike Montco can't go it alone.*

[www.planning.montcopa.org/BikeMontco](http://www.planning.montcopa.org/BikeMontco)

From Vision to Reality





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From Vision to Reality

