

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

Road ownership



Montgomery County	1%
Municipal	62%
PennDOT	26%
Pennsylvania Turnpike Commission	2%
Private	8%

Fragmented
Gov't
Control

70

The number of Montco
bicyclists involved in crashes
each year.

Safety &
Crash
History



Opportunities

Demographic
Changes

1,552

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

Increasing
Bicycle Use



1000

per day



650

per day

Emergent
Bicycle
Culture



Institutional
Support

PennDOT
Connects
Planning with our communities



New Challenges & Opportunities



Types of Rider in Montco

LTS	Comfortable Enough for (Cyclist Type)	Characteristics
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

7%

32%

46%

15%

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%



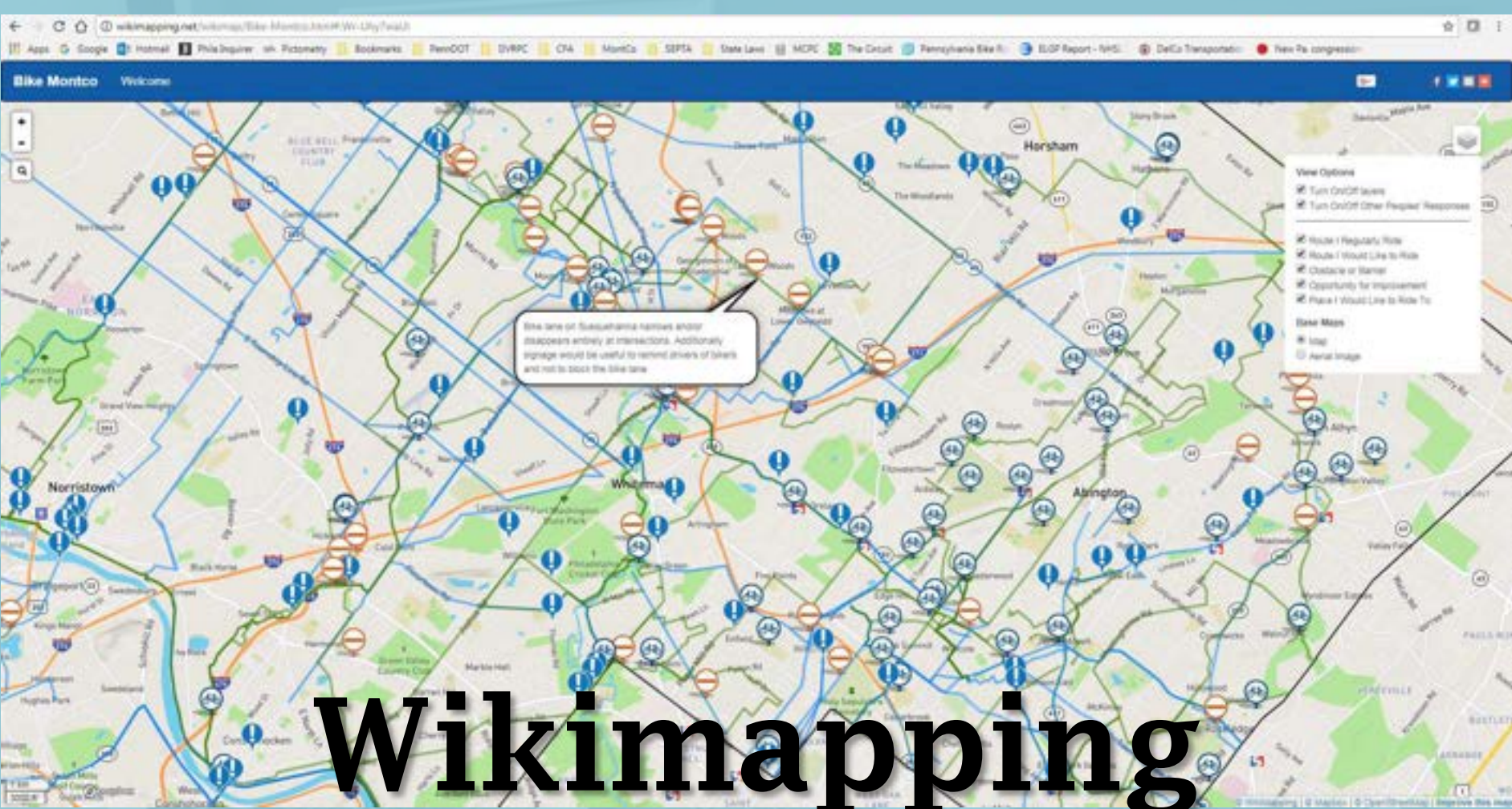
Enthused and Confident
43%



Highly Experienced
4%



No Way, No How
4%



Wikimapping

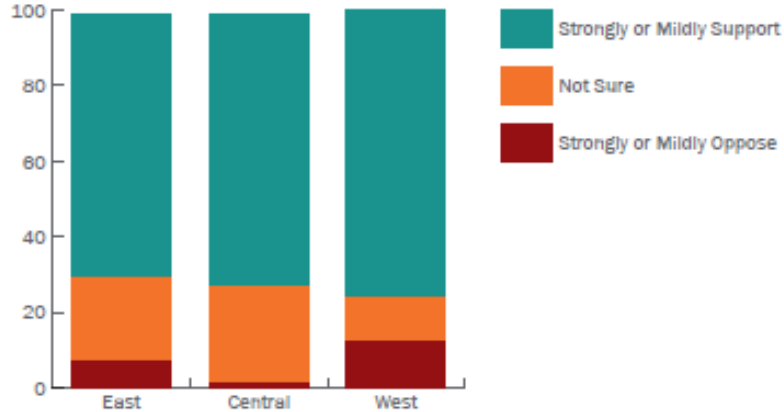
600+ Comments

Barriers, Routes to Ride / Avoid, Etc.

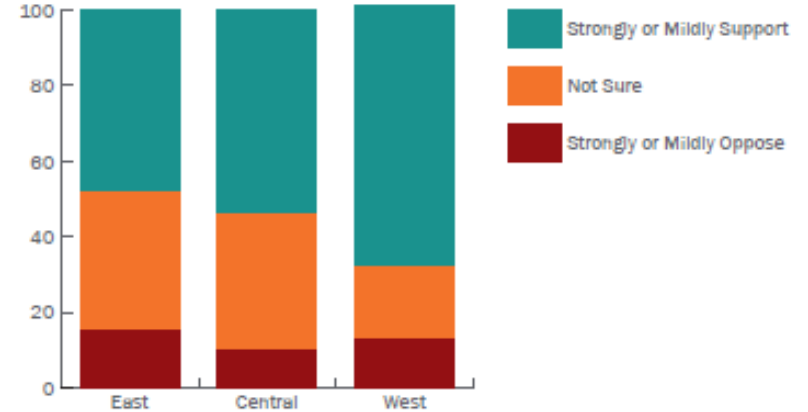
What Citizens Want



Municipal support for separate biking trails



Municipal support for on-road bike lanes



Our municipalities
support bicycling

A Plan For Its Time...



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 Four Es focuses on creating educational and instructional programs that teach road user awareness and bicycle safety skills. Education efforts should be aimed at two distinct road user groups:



Brochures 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. "Defensive 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. Systematically placing

Assessing Bicyclist Types and Needs



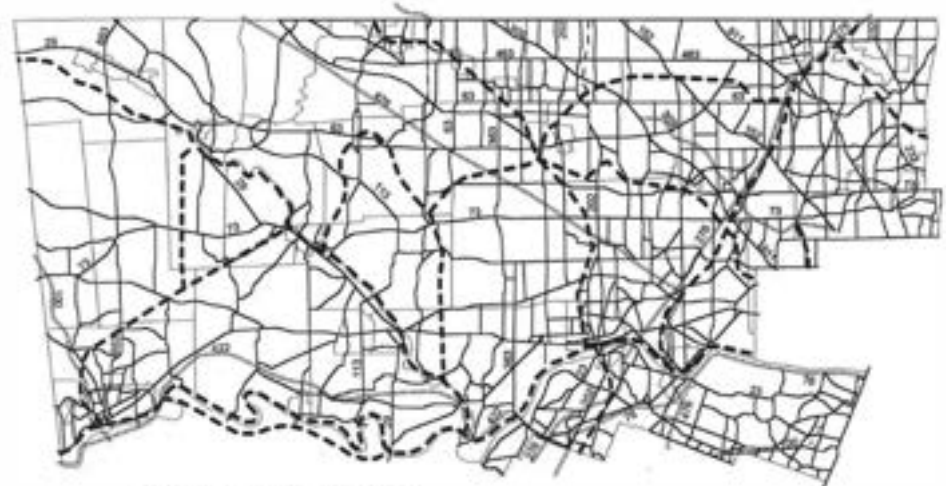
Type

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

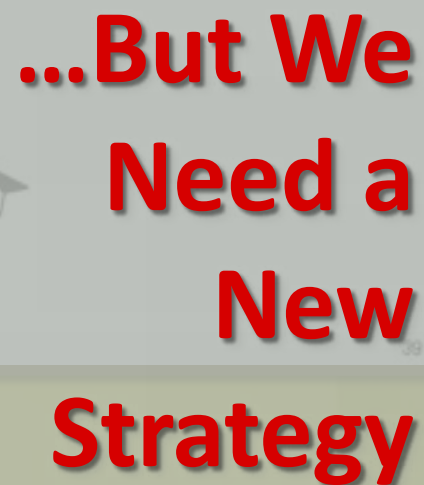
———— Bicycle Routes

———— Expressways / Freeways

Scale: 1 inch equals 1.00 miles
 State map prepared by the
 Montgomery County Planning Commission
 April 1999



Recommended Bicycle Routes



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



A photograph of three children riding bicycles on a residential street. The child on the left is a boy wearing a blue and white plaid shirt and a black helmet. The child in the middle is a boy wearing a blue t-shirt and a black helmet. The child on the right is a girl wearing a dark blue shirt and a red helmet. They are all smiling and looking towards the camera. The background shows houses and trees. The entire image has an orange tint.

“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.”





**CONNECTED
COMMUNITIES**



EQUITY



SAFETY



**EDUCATION AND
ENFORCEMENT**



**HEALTH AND
ENVIRONMENTAL SUSTAINABILITY**



VIBRANT ECONOMY

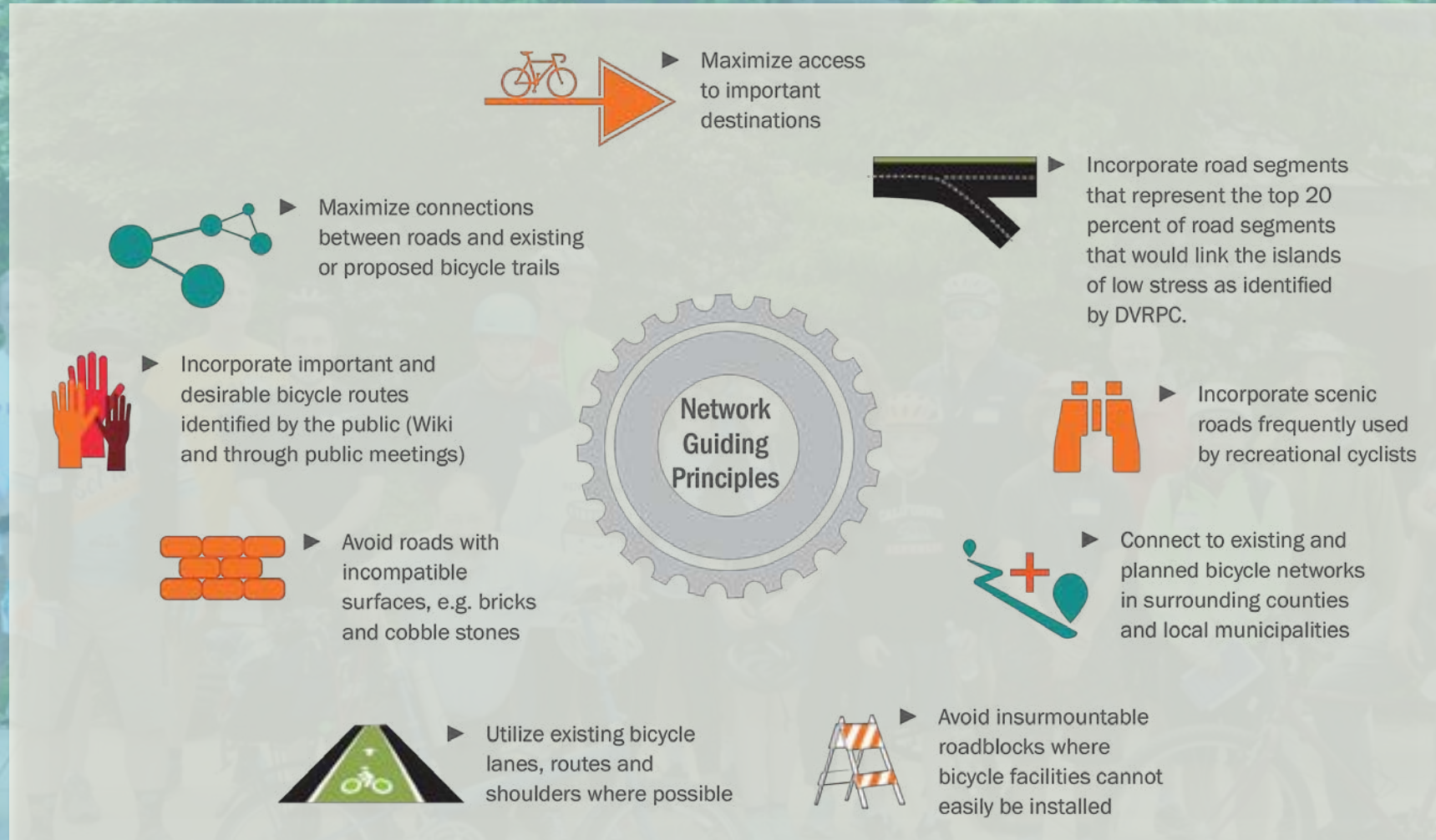


Bike Montco's 6 Themes

The Vision

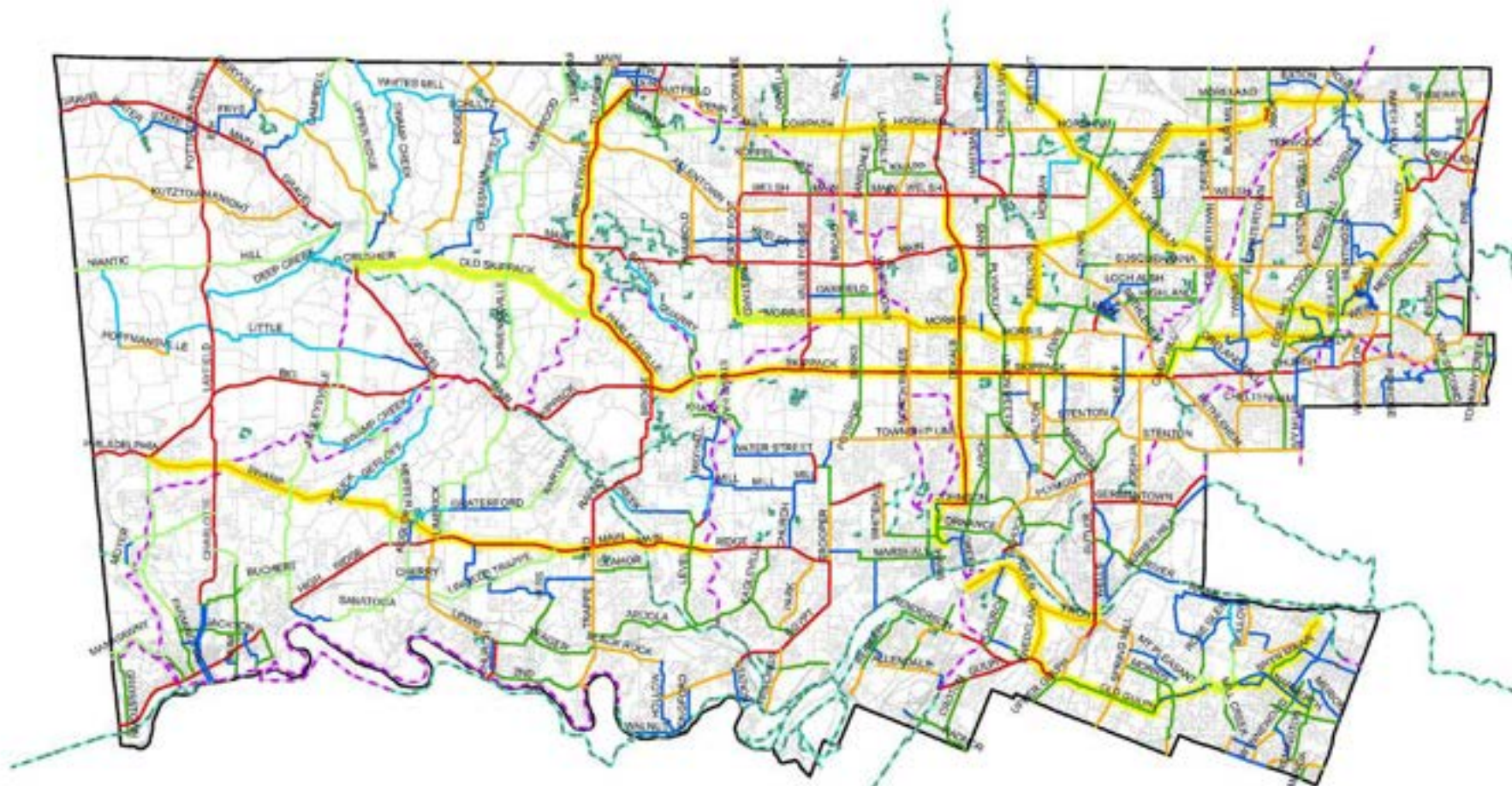


How to Plan a Network



DVRPC Bicycle LTS & Connectivity Analysis

Sarah Moran, AICP



- | | | | | | |
|--|------------------------|--|--------------------|--|---------------------|
| | Local Rural/Scenic | | Collector Urban | | Priority Bike Route |
| | Local Urban | | Minor Arterial | | Existing Trail |
| | Collector Rural/Scenic | | Principal Arterial | | 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.



160 mi.

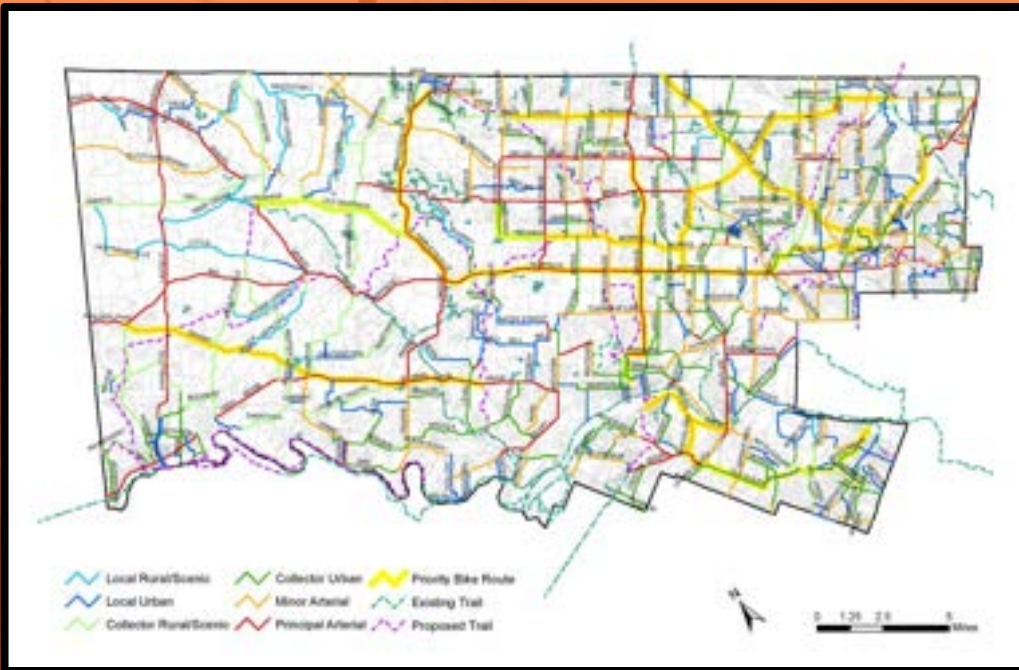


37 mi.

**Uses many PennDOT
roads**

The Planned Bicycle Network





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

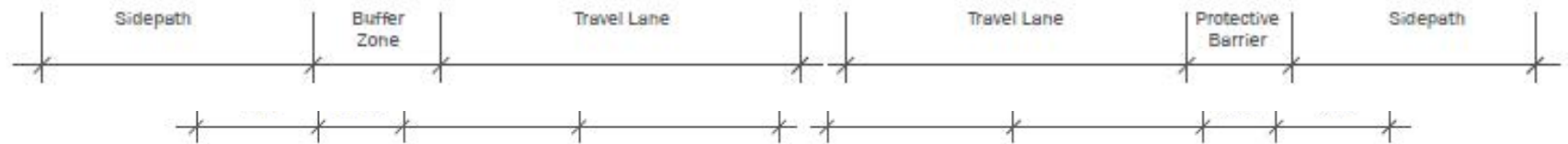
Average Daily Trips (ADT)	ROADWAY TYPE	SPEED LIMIT		
		25 MPH	35 MPH	40-55 MPH
Least ↑ ↓ Most	LOCAL RURAL / SCENIC	Marked shared lane Shared lane (no provisions)	Paved shoulder Marked shared lane Shared lane (no provisions)	
	LOCAL URBAN	Bicycle lane Bicycle boulevard Marked shared lane	Buffered bicycle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

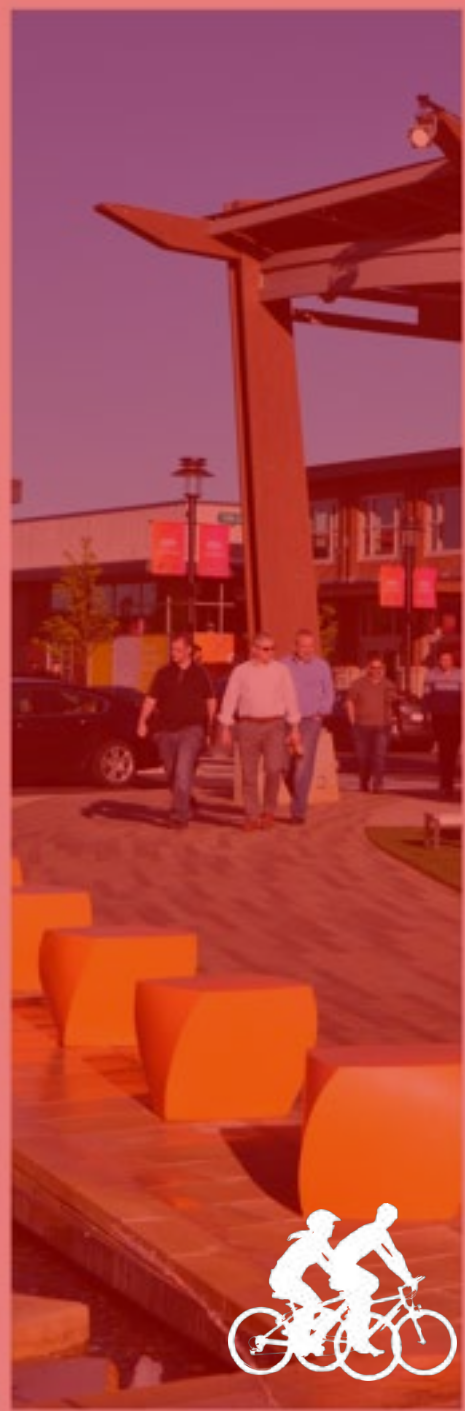
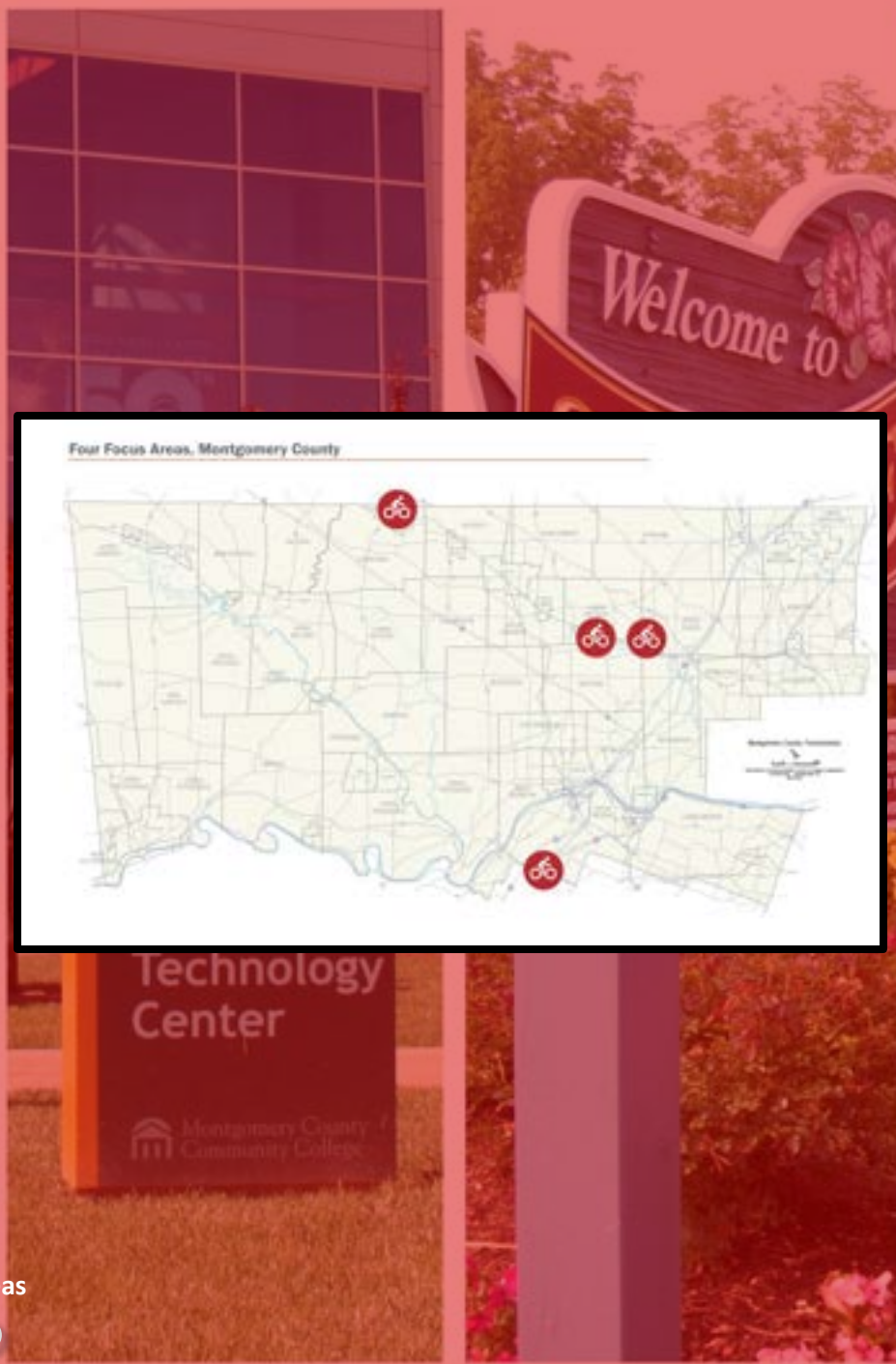
* paved shoulders on arterial roads should be at least 6 feet wide

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

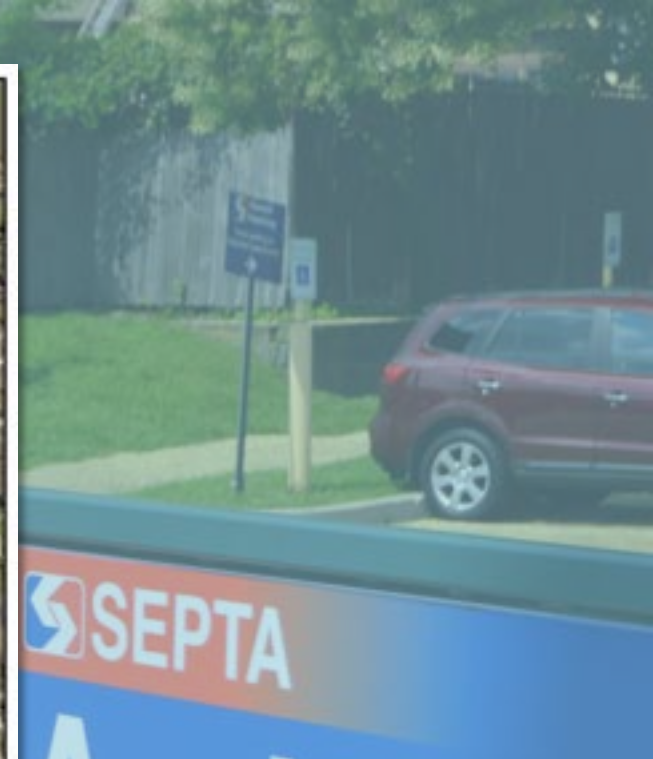


**Shared Use Path
Protected Bicycle Lanes**



4 Focus Areas





4 Focus Areas





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 the network. Giving the public tools that are accessible and ubiquitous give it legitimacy for people.

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

The more options bicyclists have to connect to the network 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	Timeline	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 Great Trails and other regional bicycling routes.	Planning Commission	Long	Number of miles of Great 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	Timeline	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	Timeline	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 PAT 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 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 damaged. 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 local funds 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 county's national bicycling industry to set up successful approaches can create a critical mass of businesses.

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

Building an economy around bicycling businesses outside of the industry will create jobs and provide their employees healthy options for commuting. Montgomery County has numerous cycling businesses, 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 campaigns
C	Pursue the American League of Bicyclists "Bicycle-Friendly Community" designation for the county and other municipalities.	Planning Commission	Medium	Certification achievement
D	Consolidate 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 inter-modal bicycle routes.	Commerce	Long	Number of businesses located adjacent to trails and major routes
F	Attract companies in the bicycling industry to locate in 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 destinations 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	Engage 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.



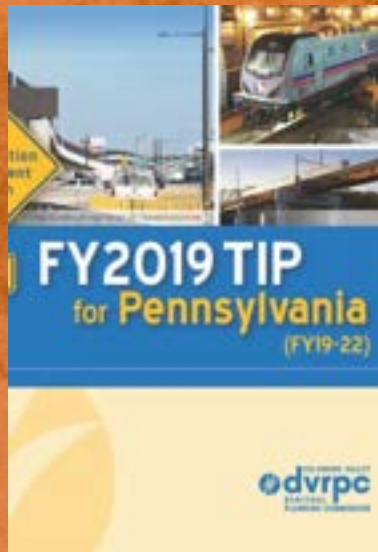
...must remain relevant.



...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

From Vision to Reality





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From Vision to Reality

