

# Bicycles, Pedestrians & Transit

A summary of findings and recommendations from the  
**Active Transportation Inventory**  
prepared for all 73 Chester County municipalities.



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This project was funded by a Transportation and Community Development Initiative grant with matching funds from the County of Chester.

*“The Transportation and Community Development Initiative (TCDI) is an opportunity for the Delaware Valley Regional Planning Commission (DVRPC) to support smart growth in the individual municipalities of the Delaware Valley through initiatives that implement the region’s long-range Plan, Connections 2045 Plan for Greater Philadelphia.”*  
~TCDI Program Goal



### Chester County Board of Commissioners

Marian Moskowitz  
Josh Maxwell  
Michelle Kichline



Prepared by the Chester County Planning Commission  
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### Chester County Planning Commission Members

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## Why perform the Active Transportation Inventory?

One of the top issues identified by Chester County residents during the Landscapes3 comprehensive plan update process was the need for more bicycle and pedestrian facilities in their communities. These facilities provide residents with greater mobility, true multimodal transportation options, and additional recreational options all leading to the development of healthier communities.

The Active Transportation Municipal Ordinance Inventory and Outreach project - or 'Active Transportation Inventory' for short - reviewed all 73 Chester County municipalities regulatory and/or advisory documents for the presence

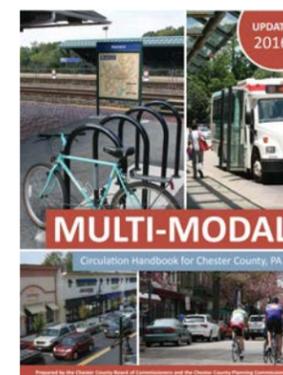
of language related to active transportation facilities. In addition to this summary report, individual reports were prepared for and shared with each of the 73 municipalities.

The primary benefit to municipalities from this project and the technical assistance it will provide will be the codification of active transportation elements into ordinance documents. The inclusion of active transportation elements within municipal ordinances will allow for a majority of these critical public infrastructure elements to be constructed as part of the land development process.

# 01

## Introduction

This document summarizes the genesis of the Active Transportation Inventory, how the inventory was performed, inventory findings, and general recommendations made resulting from the evaluations performed for all 73 Chester County municipalities.



### Multimodal Circulation Handbook for Chester County, PA

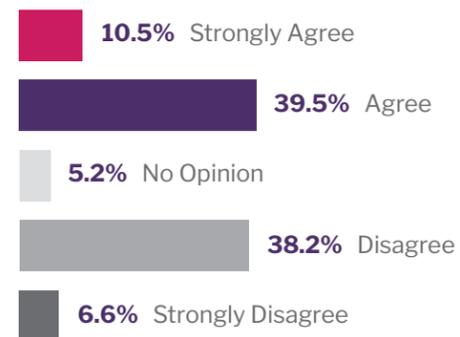
Definitions and design standards for active transportation facilities applicable to all Chester County municipalities can be found in the Planning Commission's Multimodal Circulation Handbook.

## Need For Active Transportation

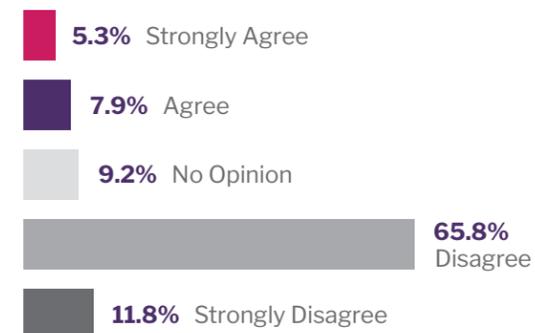
### Landscapes3 Survey Results

The Chester County Planning Commission adopted Landscapes3, the county's comprehensive plan in November of 2018. The two-year process leading to the plan update included a significant public outreach component. The first phase of that outreach was to work with a select group of community stakeholders specific to the range of topics to be addressed by the plan. Active transportation was addressed within the topic of Community Health, and a survey was taken by these stakeholders who provided the following responses relative to the state of active transportation facilities in Chester County:

**“Chester County is a safe place to walk and bike”** - the stakeholders were generally split in their opinion:



**“The bicycle and pedestrian network in Chester County is well connected to encourage active transportation, such as walking and biking to work and/or school”** - the majority of stakeholders decidedly disagreed:



**When asked to prioritize the following bicycle, pedestrian and public transit infrastructure improvements in order of magnitude of positive impact on the future of active transportation in Chester County:**

- 1 Upgrade commercial corridors using “complete street” principles, which include sidewalks, designated bike lanes or routes, pedestrian signals, crosswalks and safe travel for all modes
- 2 Add trails and/or sidewalks to provide safe and convenient connections to recreational areas, open space and commercial corridors from employment centers
- 3 Add connections between residential areas and local destinations
- 4 Installation of sidewalks, bike parking, bus shelters and other amenities at or near transit stops and stations
- 5 Improve or install wayfinding signage at priority locations to direct all modes to popular destinations
- 6 Provide employee based incentives to encourage both biking and walking to work

When asked to prioritize the locations where bicycle and pedestrian infrastructure improvements should occur to encourage active transportation:

- 1 Suburban areas close to urban centers
- 2 Urban centers
- 3 Suburban areas that are far away from urban centers
- 4 Rural areas



Additionally, the Landscapes3 Public Survey included the following comments relative to active transportation facilities:



In summary, the comprehensive plan update process for Landscapes3 identified both the sentiment and need for additional active transportation facilities to be part of the community infrastructure, and relatively where those facilities would be most impactful toward creating a more complete bicycle and pedestrian network.

## Benefits of Active Transportation

### Community Health

A safe, well connected system of multi-use trails, sidewalks, bike lanes and public transit routes to various destinations with interconnections to parks, open space, and recreation allows individuals to choose a convenient, affordable, sustainable, and healthy lifestyle. While there have been recent advances in improving this infrastructure in Chester County with the development of multi-use trails, there are still many missing links leaving users feeling uncomfortable on facilities that may be perceived as unsafe. These missing links are most prevalent in the suburban environment where previous automobile-only oriented developments excluded the installation of active transportation facilities, as evidenced in many residential developments and corporate business parks where they are now most needed. The proximity to protected open space and multi-use trails not only has a significant positive impact on community health, it also increases the economic value of housing and real estate, thus improving the local economy.

### Public Transit Access / Multimodal Options

Access to public transit provides enhanced mobility options for everyone. Public transit reduces traffic congestion and increases air quality by reducing the number of single occupancy vehicles on our roadways. Providing sidewalks and walkway connections to bus stops, rail stations, and transportation centers establishes a vital link between public transit riders and the transit system.

While public transit services are not available everywhere in Chester County, it is envisioned that the service area will expand within growth areas to coincide with increased population and density. Therefore, providing active transportation connections throughout our growth areas is very important – so that everyone who lives within these areas can easily access the transit system.

In many Chester County locations, public transit is not an option or provides sparse service and/or frequency, and not everyone has access to or can afford to own and maintain their own automobile. Active transportation facilities in these locations provide the only means for people to get to work or the store, thus making them a critical piece of infrastructure. The more expansive and connected a system of walkways and trails can be, will provide access to a greater number of destinations for the most amount of people, regardless of whether they own an automobile.

### Aging in Place

By 2045, the Baby Boomer 65 and over population is expected to increase from 13% to at least 20% (65,000 to 129,000 residents) in Chester County. Planning for this significant increase in the aging population is critical so that Chester County residents can choose to age in place and remain in a community that reflects their changing lifestyles and physical capabilities. Many communities outside of the urban centers in Chester County lack the facilities necessary to allow this, resulting in the aging populations either moving back into more livable communities that provide housing and public transportation options, walkable ADA accessible public facilities, community services, and opportunities to remain active, or into isolated senior community developments.

### Economic Benefits

Multi-use trails are cherished amenities in Chester County communities and offer safe and free opportunities to get outdoors and be active. Chester County's 2018 Return on Environment study estimated that this trail generated nearly \$3 million in value annually to its 300,000+ users in 2018 through saving trail users the cost of having to pay for recreation in the private market. Furthermore, it is well documented that engaging in moderate and strenuous activity contributes to physical well-being and reduces the risk of chronic health problems, which are incredibly costly to individuals, employers, and the healthcare system. Reduced healthcare costs, including avoided medical costs, workers' compensation costs, and costs related to lost productivity, are important but often forgotten economic benefits of trails and other active transportation infrastructure.





## CHESTER COUNTY ACTIVE TRANSPORTATION Pedestrian Facilities

### Sidewalks

Sidewalks are the backbone of active transportation systems and provide the most basic connections between destinations. The *Smart Transportation Guidebook* states that “the most fundamental action that can be taken by any municipality to improve pedestrian facilities is to amend its land development ordinance to require the installation of sidewalks for new and redeveloped land uses.” The Guidebook further states: “In suburban areas, developers have routinely requested waivers from sidewalk requirements, typically on the grounds that any anticipated pedestrian activity would be minimal. With few exceptions, this should not justify a waiver, given piecemeal suburban development patterns and the constant potential for redevelopment with more intensive uses.

PennDOT requires sidewalks to be a minimum of 5 feet in width to comply with the ADA requirement for periodic passing spaces of 5 feet in width thus allowing the entire length of the sidewalk to provide for these spaces. The Planning Commission also recommends that all sidewalks and walkways have this minimum 5 foot width for the same reason.

At the time of this Inventory, Chester County has a total of 836.2 miles of sidewalk as tabulated by our Geographic Information Systems (GIS) inventory. Most sidewalks are located in our boroughs and city with others being primarily located in suburban commercial centers and planned residential developments.

One common trait of sidewalks in Chester County – primarily in suburban locales - is a lack of interconnectivity. There are many instances where sidewalks only front their associated development and do not connect to adjacent developments. This also happens along borough boundaries where existing urban sidewalk systems do not extend into adjacent suburban commercial centers, even those within easy walking distance.

There are many reasons for the lack of sidewalk connectivity including sporadic development, waivers granted for sidewalk implementation, and/or lack of a guiding plan or document for an active transportation system. This Inventory looks to remedy that through identifying where these gaps exist, recommending the institution of planning tools and techniques that municipalities may employ to prevent future occurrences and ultimately prioritize gaps for improvements that will have the most effect toward expanding the active transportation network through a local or county-wide active transportation plan.

### Walkways

Essentially the same facility as a sidewalk, but outside of a roadway corridor – crosswalks which provide for safe pedestrian crossing of roadways are just as important for making essential pedestrian connections between destinations as sidewalks.



#### SAMPLE DEFINITION LANGUAGE

**Sidewalks** - A pedestrian route, typically constructed of concrete and parallel to a street that provides a means for pedestrians to travel within the public right-of-way while physically separated from vehicular traffic. Note: Sidewalks are designed for pedestrian use only.

*Multimodal Circulation Handbook*



## CHESTER COUNTY ACTIVE TRANSPORTATION Shared Use Facilities

### Trails

Trails may be considered an entire category of active transportation facilities including multi-use, restricted use (pedestrian-only, hiking, mountain biking, equestrian, etc.), similar to how 'roads' categorize local roads, state highways, limited access freeways, and interstate toll facilities. A 'trail' may also encompass both trails and roadways if used to define a common route, but for the purposes of this inventory we are focusing on trails as off-road bicycle and pedestrian (non-vehicular) facilities that serve as both transportation and recreation resources outside of the vehicular and rail transportation infrastructure.

Multi-use trails are the trails that Chester County is developing as part of our Landscapes3 CONNECT Recommendation (#7) to 'Create a countywide, interconnected trail network: Develop and implement a countywide trail network that includes expansion of the Circuit, Greater Philadelphia's regional multi-use trail network, and connecting local trails. As further explained later in this report, the Circuit Trails serve as the primary spine of multi-use trails in Chester County that will eventually extend into other counties in the Greater Philadelphia region once developed.

At the time of this Inventory, Chester County has a total of 27.4 miles of publicly accessible county or municipally owned multi-use trails as tabulated by our Geographic Information Systems (GIS) inventory. These trails include the Schuylkill River Trail, Chester Valley Trail, Struble Trail, and East Branch Brandywine Trail.

While Chester County continues to move forward with the trail development strategy of completing the Circuit, we encourage municipalities to plan for how their residents may be able to access the Circuit from their communities by using a connector trail or safe on-road route without having to use an automobile. The trail mapping inventory being conducted as part of this project will help to identify where these trail connections can be made. In addition, the recommendations provided in the municipal reports along with follow up technical assistance as necessary can help to make these connections a reality. Just as is planned for sidewalk gaps, trail gaps and/or direct connections may be identified through this inventory which could then be prioritized as part of a subsequent local or county-wide active transportation plan.



#### SAMPLE DEFINITION LANGUAGE

**Multi-use Trails-** (Off -road facilities, intended for multiple user modes)-A facility that is physically separated from the roadway and typically accommodates bi-directional travel by both bicyclists and pedestrians. The trail can be located within a publicly owned right-of-way, an exclusive right-of-way, or an easement. Shared use trails typically have an improved surface (e.g., asphalt, concrete, compacted gravel, etc.) and have a recommended width (per AASHTO) of 10 feet, although a minimum width of 8 feet may be used where space is constrained or when located in environmentally sensitive areas.

*Multimodal Circulation Handbook*



## CHESTER COUNTY ACTIVE TRANSPORTATION Bicycle Facilities

### Bicycle Lanes

Bicycle lanes may be the rarest of active transportation facilities in Chester County. This is because bike lanes are typically only warranted in urban settings where roadway space is limited, and it is necessary to carve out that space for bicyclists. This scenario is generally confined to our boroughs and city and along suburban arterial or collector roads where there is generally more congestion and roadway speeds are greater than 25 mph.

At the time of this Inventory, Chester County has a total of 7.4 miles of bicycle lanes as tabulated by our Geographic Information Systems (GIS) inventory. These lanes are located primarily along Business US 30 in Coatesville and through Caln Township, as well as along Baltimore Pike in southern Chester County.

All roadways outside of limited access highways may legally be used by bicyclists making them all potential bicycling routes as shared roadways. There are many locations outside of the boroughs and city where bicyclists use the roadways for commuting or recreational purposes depending on their individual level of comfort in doing so. The *Multimodal Circulation Handbook* includes several additional improvements that can be made to improve safety of these facilities including 'Share the Road' signage and 'Sharrow' pavement markings.

It is difficult for municipalities to prescribe on-road bicycle improvements for developments in ordinances considering the roadways themselves extend beyond the boundaries of the developments and are either controlled locally or by PennDOT. The more heavily

traveled roadways where bicycle lanes would be most appropriate are typically PennDOT roads. Until recently, municipalities were reluctant to implement bicycle facilities within PennDOT rights-of-way due to maintenance requirements. Revisions to the bicycle occupancy permit now only require that any signage or pavement markings associated with bicycle facilities be maintained by the municipality as opposed to the previous requirement of having to also maintain the surface, including snow removal. Maintenance agreements with municipalities are still required, however the maintenance responsibilities are much less making the implementation of active transportation facilities within PennDOT roadways much more likely as we move forward.

One of the easiest and most cost-effective means by which municipalities may implement on-road bicycle facilities is through PennDOT's Resurfacing Program; (see pg. 24) If a municipality has a bicycle/pedestrian mobility, active transportation, or similar plan for their community and has identified a PennDOT roadway for an on-road facility, there may be an opportunity to include that facility once the roadway is resurfaced and new pavement markings (lines) are re-drawn.

Municipalities that want on-road bicycle facilities should include definitions and design standards for them in their ordinances, particularly those that identify on-road bicycle networks through a separate plan or on an Official Map. This will ensure that the facilities to be developed are codified and built to those standards when a development opportunity arises.



#### SAMPLE DEFINITION LANGUAGE

**Bicycle Lanes** (a striped travel lane for bicycles): Designated travel lanes within the cartway or along the road shoulder for exclusive use by bicyclists. Bike lanes typically involve a combination of supplemental indicators including but not limited to Share the Road Signs and other pavement markings.

*Multimodal Circulation Handbook*



## CHESTER COUNTY ACTIVE TRANSPORTATION Public Transportation

Chester County is projected to be the fastest growing county in the southeastern PA region, and public transit services are proposed to expand within our growth areas to accommodate the added population and density associated with that growth.

The existing services consist of 15 fixed bus routes serving approximately 850 bus stops and 12 regional rail stations providing commuter rail service along the Keystone Corridor. These services are offered by 5 separate service providers:

- The Southeastern Pennsylvania Transportation Authority (SEPTA)
- Amtrak
- ChescoBus (TMACC)
- Pottstown Area Rapid Transit (PART)
- Krapf Buses (Bus Route A)

### Bus Network

Chester County has a total of 847 bus stops as tabulated by our Geographic Information Systems (GIS) inventory. Of these 847 bus stops, only 46% (or 390 of them) are connected with an active transportation facility (sidewalk, walkway, trail, etc.). The vision of the 2014 Chester County Public Transportation Plan is to have 90-100% of bus stops with pedestrian connections.

Only 6% (or 50 of the 847) bus stops are equipped with bus shelters. While there is no prescribed target for how many bus stops should also have bus shelters, there is guidance for the inclusion of bus shelters based on the ridership at each stop. A bus shelter is recommended for all bus stops that have greater than 5 daily boardings. Additional amenities such as benches, trash receptacles, system maps, and real time bus info are also prescribed based on the amount of daily boardings. These recommended requirements are further described in the Planning Commission *Multimodal Handbook*.

Bus stop development can and should be an integral part of the land development process. Municipalities can require the development of bus stops with or without shelters if a proposed development is located along a fixed route bus service and/or if there may be a bus stop identified on an Official Map.

### Fixed Bus Routes

The following are the existing fixed bus routes in Chester County, by provider:



**92:** Exton to King of Prussia serving West Chester and Paoli

**99:** Phoenixville to Norristown Transportation Center serving King of Prussia

**104:** West Chester University to 69th Street Transportation Center serving Newtown Square

**105:** Paoli to 69th Street Transportation Center serving Ardmore and Lankenau Medical Center

**106:** Paoli and Ardmore to 69th Street Transportation Center serving Penn Wynne

**119:** Cheyney University to Chester Transportation Center serving Marcus Hook

**120:** Cheyney University to 69th Street Transportation Center serving Newtown Square

**124:** Chesterbrook and King of Prussia to 13th and Market serving Center City

**139:** Limerick to King of Prussia serving Royersford and Phoenixville

**204:** Eagleview to Paoli Station serving Lionville and Exton

**206:** Great Valley Corporate Center to Paoli Station



**Coatesville Link:** Coatesville to Parkesburg—22 daily trips

**SCCOOT:** Oxford to Kennett Square with limited service to West Chester



**Route A:** serving Coatesville, Thorndale, Downingtown, Exton Square Mall and West Chester

**Pottstown Area Rapid Transit (PART)**

**Coventry Mall:** from Pottstown serving Town Square Plaza and Coventry Mall



### Regional Rail

The Keystone Corridor is the central public transportation spine in Chester County with twelve (12) existing rail stations providing access to both SEPTA and Amtrak services. The general goal of the Public Transportation Plan is to expand both the service and frequency of SEPTA service westward through the Keystone Corridor as appropriate with the demand. Half hour or 30-minute frequency of service ends at the Malvern Station and hourly service is provided to Thorndale Station, SEPTA's westernmost station served.

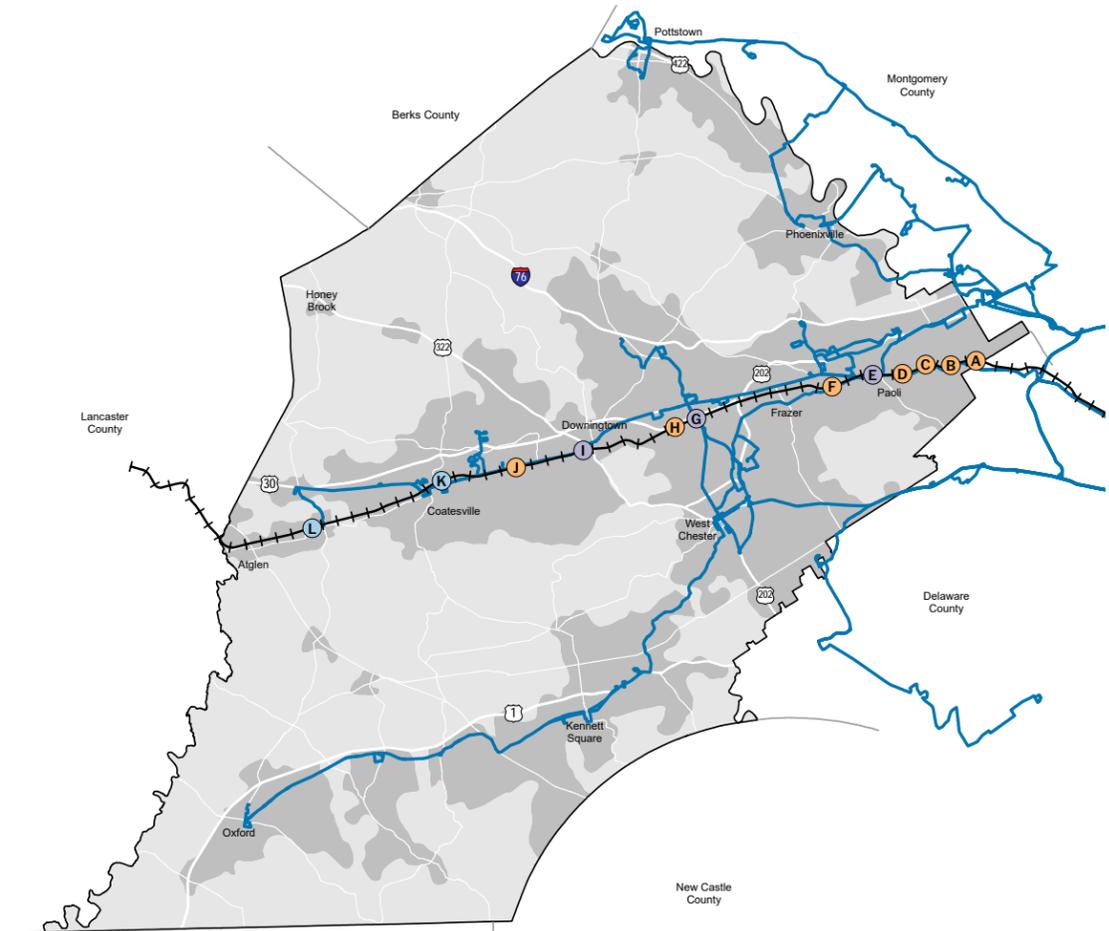
Future plans include extending SEPTA service to the city of Coatesville once the new proposed Coatesville Station is completed. SEPTA service to the existing Parkesburg Amtrak Station and the proposed future Atglen Station will be determined based on ridership demand and SEPTA's ability to operate these service extensions.

All of the existing regional rail stations are connected with sidewalks/walkways with the exception of the Whitford Station in West Whiteland Township, however a direct bicycle and pedestrian connection will be provided with the future extension of the Chester Valley Trail along the former rail corridor that crosses the Keystone Corridor at Whitford Station. Exton station recently was made pedestrian accessible via a new connector trail from the Chester Valley Trail and the Main Street at Exton commercial development thanks to funding provided by a Multimodal Transportation Fund grant.

Bicycle parking at each station will likely be increased at the stations located adjacent to the future Chester Valley Trail extension including Exton, Whitford, Downingtown, and Thorndale. Increased bicycle parking at all other stations will be warranted with increased bicycle use and demand for bicycle parking facilities.



### Existing Transit System Map



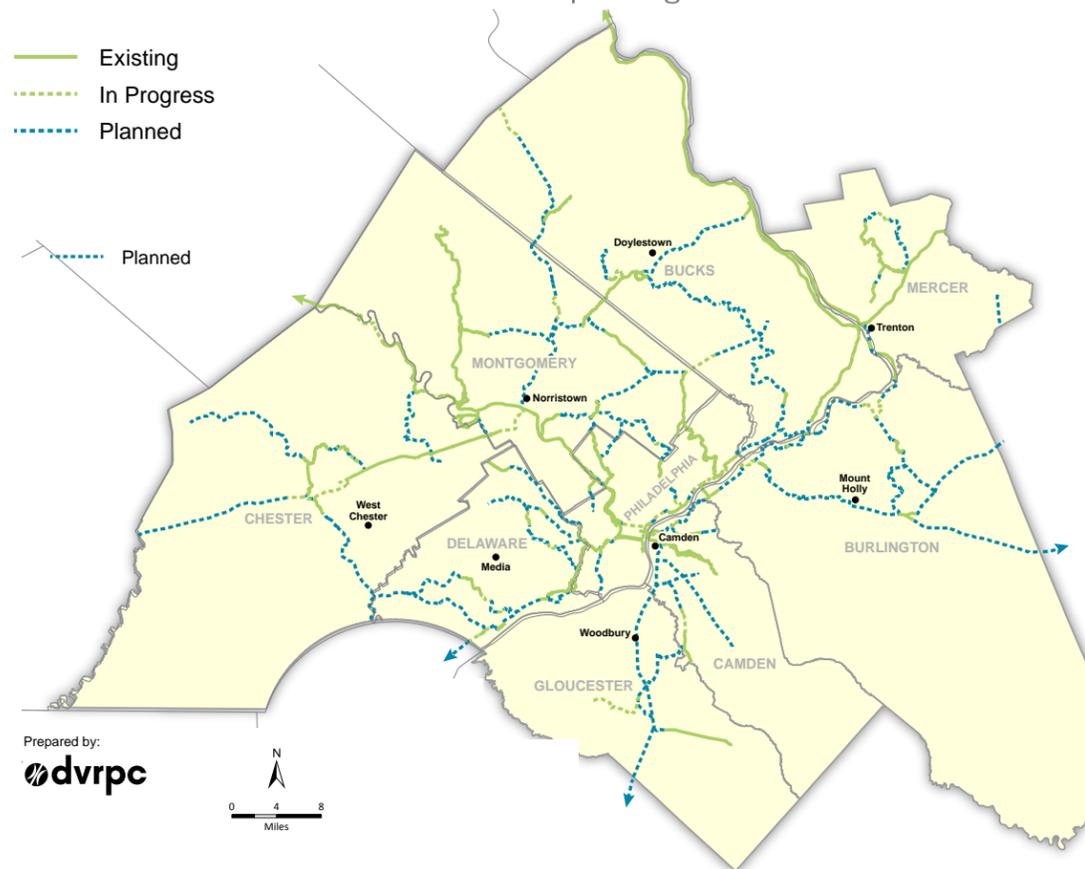
	AT Accessible?	# Bicycle Parking	Bike Racks
Existing Bus Routes Serving Chester County			
Keystone Corridor			
Growth Areas			
<b>Rail Stations</b>			
Amtrak			
SEPTA			
SEPTA/Amtrak			
<b>SEPTA Rail Service Frequency</b>			
30m - every 30 minutes - Malvern			
60m - every 60 minutes - Thorndale			
<b>A</b> Stafford Station	Yes	8	4
<b>B</b> Devon Station	Yes	12	6
<b>C</b> Berwyn Station	Yes	8	4
<b>D</b> Daylesford Station	Yes	4	2
<b>E</b> Paoli Station	Yes	4	2
<b>F</b> Malvern Station	Yes	8	4
<b>G</b> Exton Station	Yes	4	2
<b>H</b> Whitford Station	No	4	2
<b>I</b> Downingtown Station	Yes	16	8
<b>J</b> Thorndale Station	Yes	7	1
<b>K</b> Coatesville Station	Yes	0	0
<b>L</b> Parkesburg Station	Yes	0	0

## Regional Active Transportation Initiatives

### Circuit Trails

The Circuit Trails refers to a large regional network of multi-use trails across the Greater Philadelphia region. About 100 miles of Circuit Trails have been built with a final goal of developing 800 miles of trails in total. For a trail to qualify as a Circuit Trail, it must meet certain criteria including design standards such as trail width and surface, as well as having a connection to other Circuit Trails. The Circuit Trail Coalition includes government agencies, non-profit organizations, and foundations. This coalition and its partner entities work to fund, plan, and build Circuit Trails.

The Active Transportation Inventory has reviewed trail plans and regulations for all Chester County municipalities. While most trails that are built or are in planning in Chester County will not be Circuit Trails, it is important to work in conjunction with existing and planned Circuit Trails. In trail planning terms, Circuit Trails are viewed as analogous to regional highways. Through connections to other trails on the network, they offer off-road bicycle access to a wide range of destinations across the entire region. As local trails are planned and built, it will be advantageous to connect these local trails to Circuit Trails where possible and to coordinate planning efforts.



### DVRPC Sidewalk Inventory

The Regional Sidewalk Inventory is a project of the Delaware Valley Regional Planning Commission (DVRPC). The project relies on aerial imagery and other field observation methods to create an inventory of existing sidewalks across DVRPC's nine-county region. One of the fruits of this effort has been the creation of a dataset that can be used as a planning tool, for example by identifying important gaps in a local sidewalk network. The dataset will be updated with input from DVRPC's planning partners as new sidewalks are built.

One of the goals of the Active Transportation Inventory is to have municipalities adopt sidewalk requirements within their ordinances so that new sidewalks will be required to be constructed as part of the land development process. Municipalities are also encouraged to undertake their own active transportation plans and the Regional Sidewalk Inventory could be an important tool in those efforts.



### SEPTA Bus Network Redesign

The Southeastern Pennsylvania Transportation Authority (SEPTA) is the region's largest public transportation provider and will be undertaking a process to reconfigure its bus routes across its entire service area. This effort is the result of a 2018 report recommendation from a transit consultant that identified elements of the bus system specifically in the city of Philadelphia that could be improved. Broadly speaking, the redesign will seek to improve service through changes such as the deployment of more intuitive routing, greater spacing between stops, and an emphasis on linkages to other modes and routes.

Public transportation is an important element being considered in the Active Transportation Inventory. Sidewalks and walkways are especially needed to provide connections to bus stops, and to interconnect neighborhoods with regional rail stations. If SEPTA's redesign helps to grow ridership in Chester County, there could also be the potential to invest not just in sidewalks but additional amenities like shelters at those bus stops with more robust ridership.



### Bike-Friendly Resurfacing Program

The Bike-Friendly Resurfacing Program, operated by PennDOT and DVRPC, is intended to help identify low-cost bicycle-friendly improvements to PennDOT roads as they are scheduled to be re-surfaced. When PennDOT identifies a segment on one of their roads that has come due for re-surfacing, PennDOT and DVRPC reach out to the relevant county planning commission as well as the Bicycle Coalition of Greater Philadelphia (BCGP) to determine if there is the ability and the interest to incorporate bicycle facilities such as sharrows and bike lanes into the roadway. These interventions are low cost because they do not generally involve any changes or expansions of the actual roadway.

Municipalities that have existing bicycle / pedestrian or active transportation plans may take advantage of this program to have proposed bicycling facilities such as bike lanes or shared roadway pavement markings and signage installed. Municipalities need only to sign an agreement with PennDOT ensuring that the municipality will be responsible for maintaining the signage, striping and/or pavement markings (not the roadway itself) that may be installed as part the effort.



### Ongoing Municipal Planning Efforts

Many of Chester County's municipalities have been engaged in planning for active transportation facilities for many years. While most municipalities have addressed active transportation elements within their comprehensive plans, many others have taken the additional steps to advance community wide trail or bicycle/pedestrian mobility plans, incorporate those initiatives into their ordinances, and/or seek funding for key implementation projects through outside funding sources. The advancement level of such planning typically coincides with communities with higher populations and density where these facilities are desired and most needed. While this Inventory is not intended to compare and contrast municipal efforts toward active transportation planning, there are examples of good planning techniques employed by various municipalities that can be shared through technical assistance that may be applied in other municipalities based on their specific needs or desires of those communities.



Avondale Borough Comprehensive Plan - Pedestrian/Bicycle Plan



Upper Uwchlan Township Community Trails Map



West Brandywine Township Comprehensive Plan



# 02

This chapter discusses how the Inventory addresses the goals, objectives, and recommendations in the County's comprehensive plan, Landscapes3.

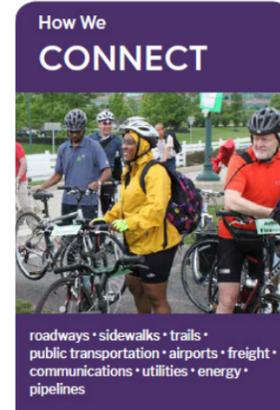
## County Active Transportation Planning Policies

### How We Connect

The purpose of this Active Transportation Inventory is to further advance the goals and recommendations of Landscapes3, Chester County's Comprehensive Plan as they pertain to active transportation facilities planning and development. This chapter notes how the Inventory addresses each of those goals, objectives, and recommendations and provides guidance for the desired level of active transportation facility development within each of the Landscapes3 Growth and Rural Resource Areas.

Active transportation facilities are addressed primarily within the 'How We CONNECT' chapter of Landscapes3.

Multimodal transportation networks provide options for all travel modes—vehicular, bicycle, pedestrian, public transit, and freight—and are essential to maintaining communities that support public health, provide accessible transportation options for all, and help to mitigate climate change.



**CONNECT Goal**  
 Advance efficient, reliable, and innovative transportation, utility, and communications infrastructure systems that responsibly serve thriving and growing communities.

#### CONNECT Objective C

**Provide universally accessible sidewalks, trails, and public transit connections to create a continuous active transportation network within designated growth areas, and develop multi-use trails to interconnect all communities.**

The Active Transportation Inventory works to achieve this objective by identifying the capabilities of our municipalities to create this network through the land development process and other means, and recommending the steps each municipality should take to enhance their regulatory ordinances and other planning tools toward the implementation of active transportation infrastructure.

**CONNECT Recommendation 2**

**Advance multimodal transportation: Provide technical assistance and guidance review to advance multimodal transportation options.**

The initial steps of the technical assistance to be provided to municipalities may be found within the individual municipal reports generated as part of this Active Transportation Inventory. Municipalities may pursue additional technical assistance through the online resources provided by Planning Commission and/or by Planning Commission staff or other private consulting firms by applying for assistance through our Vision Partnership Program or other funding resources available for active transportation planning and implementation.

**CONNECT Recommendation 5**

**Promote bus service within growth areas: promote universally accessible bus service to employment centers and growth areas.**

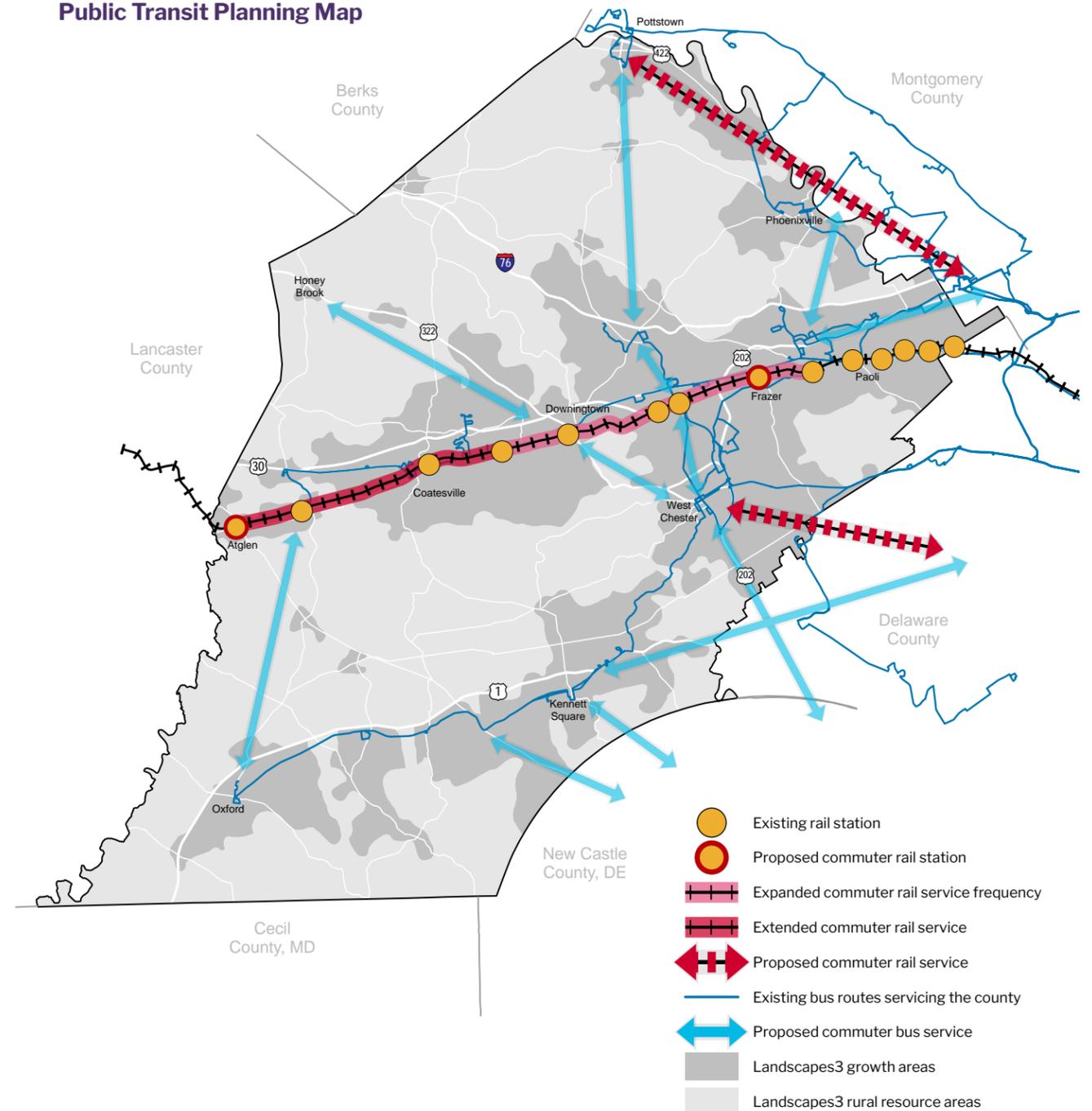
Existing fixed route bus services serve the majority of growth areas in the county. As population and density within the growth areas increases, so will the need to provide both adequate active transportation connections to bus stops and proper amenities at these bus stops to limit the use of single occupancy vehicles and reduce roadway congestion.

**CONNECT Recommendation 6**

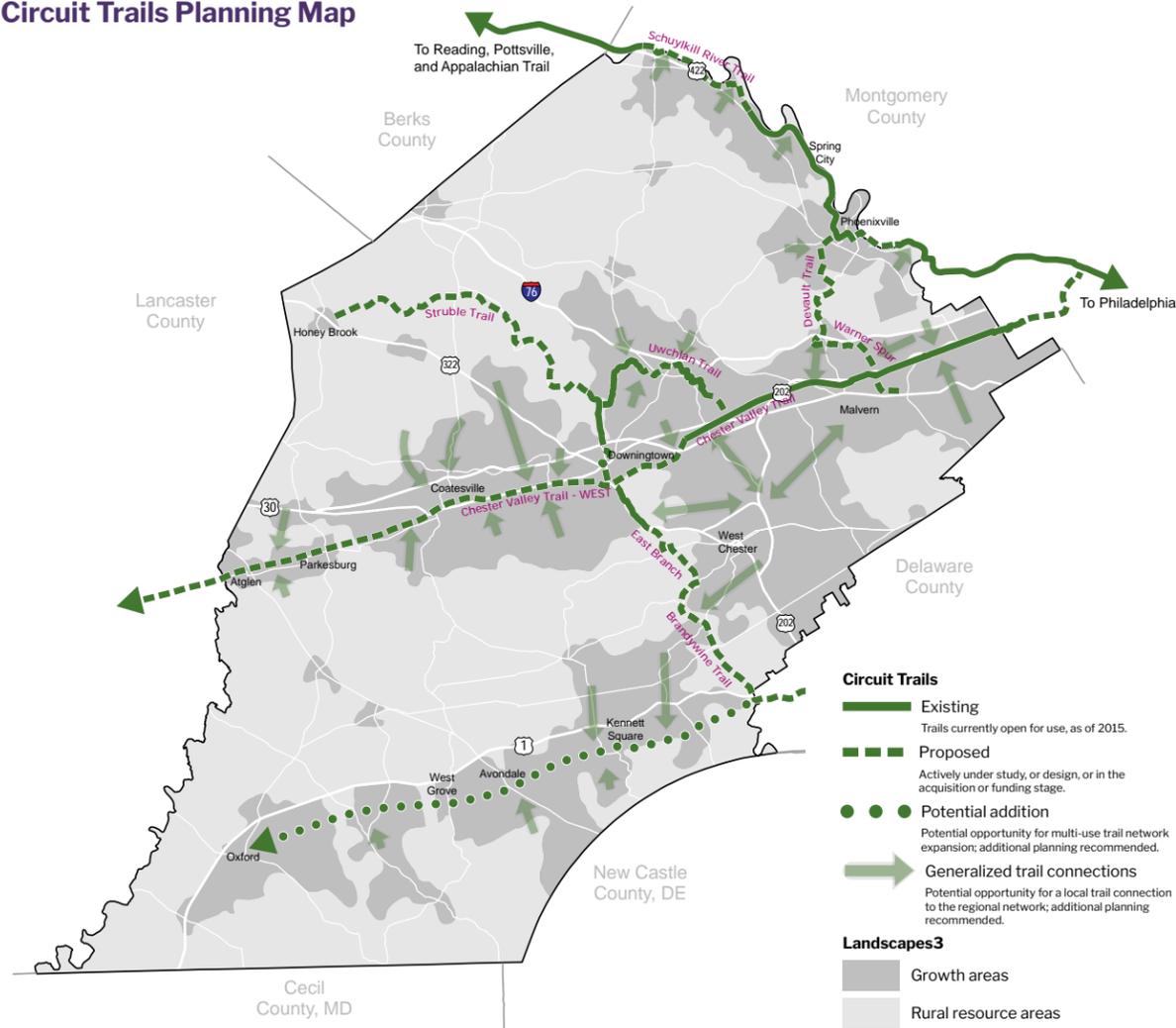
**Expand regional rail service: support the expansion of local regional rail service to our urban and suburban centers and adequate parking at all regional rail stations.**

There are current plans to expand accessibility and multimodal access options to many of the county's existing regional rail stations. As both SEPTA regional rail service and frequency progresses westward along the Keystone corridor, it is imperative to ensure that the missing active transportation links between the communities and regional rail stations are provided to expand the public transit network and reduce the need for station access by automobile.

**Public Transit Planning Map**



**Circuit Trails Planning Map**



**CONNECT Recommendation 7**

Create a countywide, interconnected trail network: Develop and implement a countywide trail network that includes expansion of the Circuit, Greater Philadelphia's regional multi-use trail network, and connecting local trails.

The Active Transportation Inventory will help to identify potential connecting local trails by collecting the existing and proposed trail connections identified by locally developed active transportation and/or trail plans. These potential alignments will be evaluated and prioritized as part of a future Active Transportation Plan to be developed by the Planning Commission.

**Landscapes Map**

Landscapes3 establishes a preservation and growth vision for the county and its municipalities. Within the plan, the Landscapes Map identifies six landscape categories where growth and rural resource protection should occur to achieve the vision. The four landscape categories within Growth Areas, including Suburban Centers, can best accommodate future growth, are planned

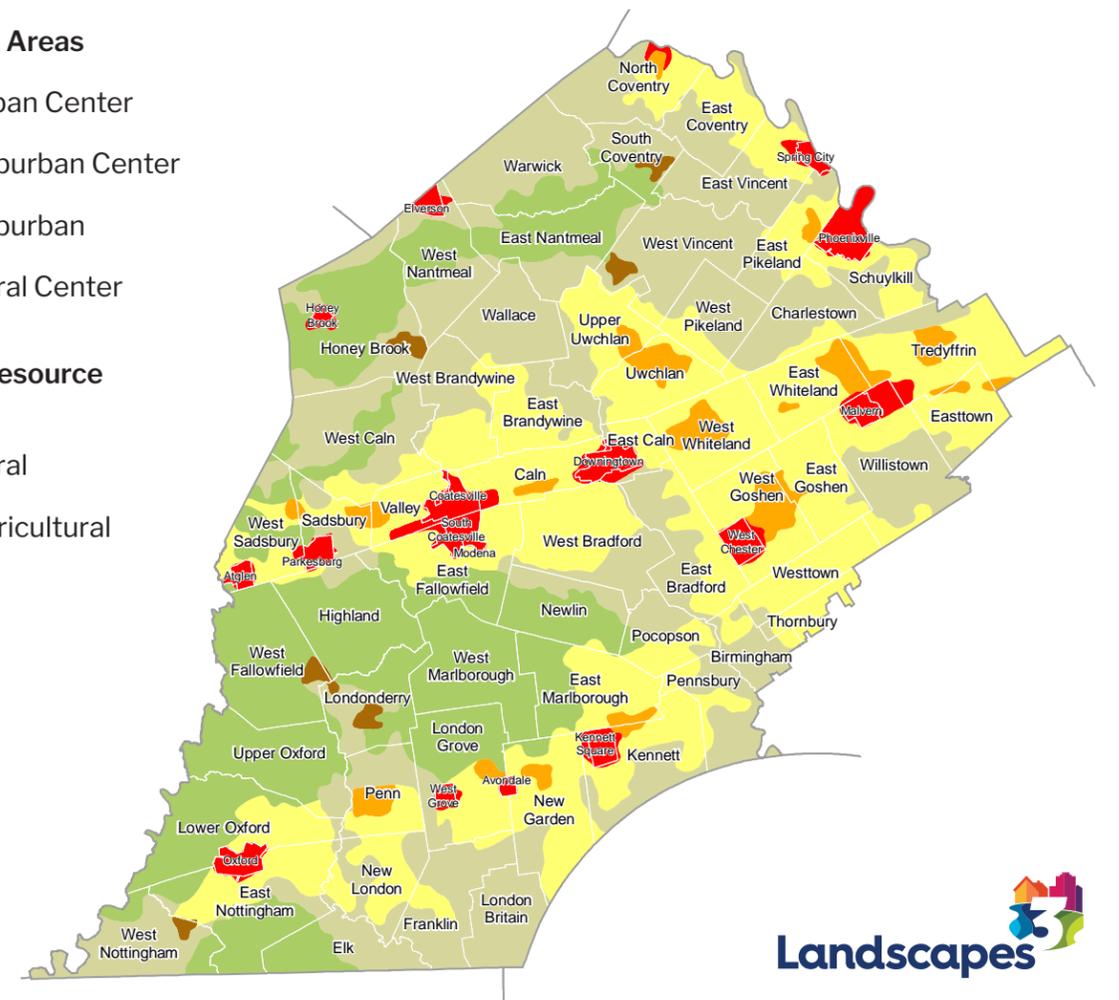
for a full range of infrastructure, and are highly suitable for redevelopment. The two landscape categories of the Rural Resource Areas are not appropriate for significant growth, strongly reflect the agricultural and rural character of the county, and serve as a focus of preservation efforts.

**Growth Areas**

- Urban Center
- Suburban Center
- Suburban
- Rural Center

**Rural Resource Areas**

- Rural
- Agricultural



**Growth Areas**

The appropriate level of active transportation facility development envisioned within each of the Landscapes3 Growth Areas is shown below.



**Urban Center** landscapes include historic downtowns and established neighborhoods that serve as civic, economic, and population centers with a traditional town character. Urban Centers will accommodate substantial future growth at a medium to high intensity with a mix of uses, including commercial, institutional, and cultural destinations. Transportation infrastructure and amenities support a walkable community that is integrated into the public transportation and roadway systems.

Sidewalks/ Walkways	Bike Lanes	Shared Roadway	Multi-Use Trails	Bicycle Parking	Bus Stops/ Shelters
●	●	●	●	●	●
Easy pedestrian access. Sidewalks along streets.	Bicycle lanes in roadway. Bicycle Boulevards on lesser vehicular volume streets.			Bicycle facilities, such as bike racks and lockers.	Bus shelters and pull-off areas for drop-offs and pick-ups.



**Suburban Center** landscapes are regional economic, population, and transportation centers with varying land uses. Suburban Centers will accommodate substantial future growth of medium to high intensity with a mix of uses, including commercial, residential, and industrial. As Suburban Centers grow, repurposing obsolete structures and sites and encouraging sustainable development will be critical. Transportation infrastructure and amenities will need to expand with new development to create an integrated multimodal network for a variety of users.

Sidewalks/ Walkways	Bike Lanes	Shared Roadway	Multi-Use Trails	Bicycle Parking	Bus Stops/ Shelters
●	●	●	●	●	●
Buffered sidewalks and clear crosswalks along streets, within parking lots, and between buildings.			Direct trail connections to regional trail network.		Bus shelters and stops for public transportation and strong connections to nearby trains stations.



**Suburban** landscapes are predominantly residential communities with locally-oriented commercial uses and community facilities. The Suburban landscapes will accommodate growth at a medium density that retains a focus on residential neighborhoods, with enhancements in housing types and affordability. Neighborhoods are inter-connected by roads, sidewalks, and paths with convenient access to parks and community facilities.

Sidewalks/ Walkways	Bike Lanes	Shared Roadway	Multi-Use Trails	Bicycle Parking	Bus Stops/ Shelters
●	●	●	●	●	●
Well designed and compatible vehicular and pedestrian access.			Extensive sidewalk and trail network.		Bus stops with pedestrian connectivity.



**Rural Center** landscapes often build from a village at a historic crossroads and expand over time to contain a mix of housing, commercial, and institutional uses that serve the surrounding rural and agricultural areas. Acting as community focal points for the surrounding area, Rural Centers will accommodate limited growth. Transportation infrastructure and amenities are provided at a village scale and character, with a focus on walkability within the core of the Rural Center.

Sidewalks/ Walkways	Bike Lanes	Shared Roadway	Multi-Use Trails	Bicycle Parking	Bus Stops/ Shelters
●		●	●	●	●
Pathways and sidewalks along streets and between buildings.			Connection to regional trail network.		

**Rural Resource Areas**

The appropriate level of active transportation facility development envisioned within each of the Landscapes3 Rural Resource Areas is shown below.



**Rural** landscapes consist of open and wooded lands, with scattered villages, farms, and residential uses. Very limited development occurs, preserving significant areas of open space and critical natural and cultural resources. Transportation infrastructure and amenities are context sensitive to the rural character and accommodate both residential and farm needs.

Sidewalks/ Walkways	Bike Lanes	Shared Roadway	Multi-Use Trails	Bicycle Parking	Bus Stops/ Shelters
		● Signed bike routes for touring cyclists.	● Trails and pathways within developments connecting to local and regional trail networks. Regional multi-use trails / network.		●



**Agricultural** landscapes consist of large concentrations of active and diverse farm operations, along with related support services. The landscape is dominated by working lands that support land-based livelihoods. Very limited development occurs at very low densities to preserve prime agricultural soils and farm operations. Transportation infrastructure and amenities are context sensitive to the agricultural character and accommodate farm and residential needs.

Sidewalks/ Walkways	Bike Lanes	Shared Roadway	Multi-Use Trails	Bicycle Parking	Bus Stops/ Shelters
		● Signed bike routes for touring cyclists.	● Regional multi-use trails / network.		●

**Generalized Delineation of Growth Areas and Rural Resource Areas**

**Growth Areas**

More than 50% of the landscapes in these 40 municipalities are in the Growth Areas.

- Atglen Borough
- Avondale Borough
- Caln
- Coatesville City
- Downingtown Borough
- East Brandywine
- East Caln
- East Fallowfield
- East Goshen
- East Marlborough
- East Pikeland
- East Whiteland
- Easttown
- Elverson Borough
- Honey Brook Borough
- Kennett
- Kennett Square
- Malvern Borough
- Modena Borough
- New Garden
- New London
- Oxford Borough
- Parkesburg Borough
- Penn
- Phoenixville Borough
- Schuylkill
- South Coatesville Borough
- Spring City Borough
- Thornbury
- Tredyffrin
- Upper Uwchlan
- Uwchlan
- Valley
- West Bradford
- West Brandywine
- West Chester Borough
- West Goshen
- West Grove Borough
- West Whiteland
- Westtown

**Rural Resource Areas**

More than 50% of the landscapes in these 33 municipalities are in the Rural Resource Areas.

- Birmingham
- Charlestown
- East Bradford
- East Coventry
- East Nantmeal
- East Nottingham
- East Vincent
- Elk
- Franklin
- Highland
- Honey Brook
- London Britain
- London Grove
- Londonderry
- Lower Oxford
- Newlin
- North Coventry
- Pennsbury
- Pocopson
- Sadsbury
- South Coventry
- Upper Oxford
- Wallace
- Warwick
- West Caln
- West Fallowfield
- West Marlborough
- West Nantmeal
- West Nottingham
- West Pikeland
- West Sadsbury
- West Vincent
- Willistown



# 03

## Municipal Analysis

This chapter explains the analysis involved in the review of regulatory plans, ordinances, and related advisory documents for all 73 Chester County municipalities for the presence of elements addressing active transportation facilities.

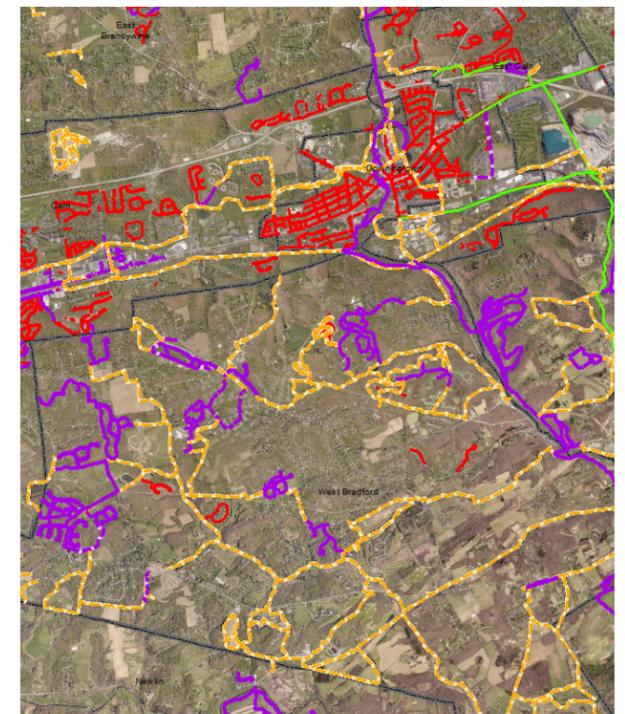
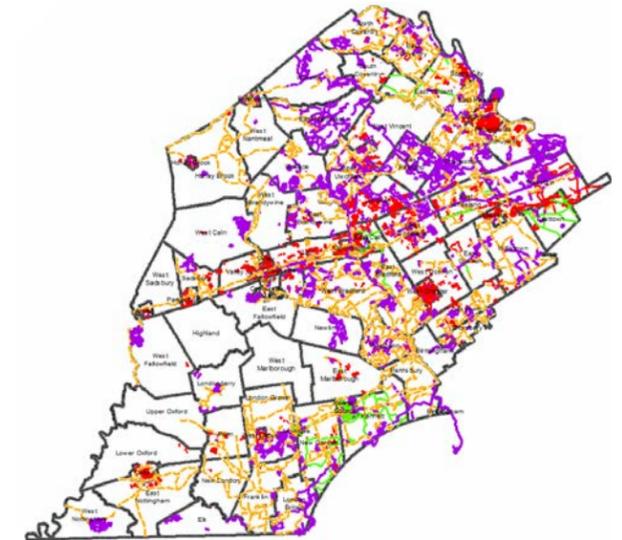
### Methodology

#### Trails Mapping Inventory

The Planning Commission first compiled a Geographic Information System (GIS) trail inventory in 2008. The original goal of the inventory was to create an accurate and comprehensive trail inventory for County wide planning purposes, and the result is an extensive catalog of existing and proposed trail systems throughout Chester County. Many trails systems are confined to parks or other public spaces, while other trails are connected to the larger, regional Circuit Trail system spanning parts of Chester County, neighboring Counties, and neighboring States.

As part of the initial document review for the Active Transportation Inventory, the Planning Commission staff compiled mapping of existing and proposed active transportation facilities from every Chester County municipality. The inventory includes sidewalks, multi-use trails, restricted use trails, bike lanes, and public transit. This information will update and contribute to Chester County's existing trail inventory.

An up-to-date Trails Mapping Inventory will be used to improve planning and the decision-making process when advocating for a connected, active transportation network throughout Chester County. The mapping will provide a base for the creation of a dynamic and functional online mapping application that will be used to support active transportation planning decisions throughout Chester County and help identify future connections and networks between municipalities.



## Review of Plans and Ordinances

The process for developing the individual municipal reports created as part of this project involved multiple Planning Commission staff across several departments. A small group comprised of staff from both the Environment & Infrastructure and Community Planning divisions developed and refined an inventory checklist document to be used as a standard form in reviewing each municipality's regulations and advisory plans. Each municipality was then assigned to a planner for a primary review and another planner for a peer review.

In each case, the primary reviewer gathered the pertinent documents for their assigned municipality and coordinated with the municipal managers and staff to ensure that the list of documents being reviewed was complete and current. These documents included the regulatory Zoning Ordinance, the Subdivision and Land Use Ordinance, the most recent Comprehensive Plan, and the Official Map (if applicable), as well as any active transportation related advisory documents such as multimodal, trail, pedestrian mobility and/or greenway plans.

Each primary review documented the municipality's regulations around active transportation facilities such as sidewalks, walkways, and trails as well as the goals and recommendations of the planning documents that addressed these same facilities. All primary reviews were then peer reviewed by experienced planners from both the Community Planning and the Design and Technology divisions, including our most experienced Act 247 review planners.

## Targeted Recommendations

Finally, the primary reviewer authored and shared recommendations tailored to each municipality's unique characteristics focused on regulatory changes that would help the municipality to develop active transportation facilities best suited for their communities and allow these facilities to be implemented through the land development process. Included with each report are suggestions for how the municipalities may seek technical assistance to update these documents and funding for project specific implementation outside of the land development process.

## Example Municipal Summary

### Chester County Landscapes

**Active Transportation Inventory | Chester County, PA**  
DRAFT August 2020

**Landscapes**

**Vision for Active Transportation**  
One of the top issues identified by Chester County residents during the Landscapes 3 comprehensive plan update process was the need for more bicycle and pedestrian facilities in their communities. A core principle of Landscapes 3 is to provide multiple transportation choices for its residents, primarily within the growth areas defined by the Landscapes Map. One of the best and most cost efficient means by which municipalities can implement active transportation facilities is through the land development process.

**Landscapes Map**

**Project background**  
The Active Transportation Inventory reviewed the regulatory plans, ordinances, and related advisory documents for all 73 Chester County municipalities for the presence of elements addressing active transportation facilities. This report contains the technical summary of the review that Planning Commission staff performed for your municipality. Please refer to the County-wide Summary Report to see the status of how active transportation facilities are addressed county-wide available at: [www.chescoplanning.org/transportation/atf.cfm](http://www.chescoplanning.org/transportation/atf.cfm)

**Documents Reviewed**

**Comprehensive Plan (Adopted June 2019)**  
West Goshen's Comprehensive Plan has significant recommendations as they relate to improving overall active transportation infrastructure throughout the Township. In addition to creation of an interconnected pedestrian and bicycle network, targeted areas for consideration include Park Place and Route 5 from the Borough to the West Goshen Town Center. The plan further recommends amending the Zoning Ordinance and Subdivision & Land Development Ordinance to include pedestrian and bicycle standards as well as adoption of an Official Map to more formally identify future pedestrian and bicycle needs. Additionally, the Plan recommends capital improvements planning for pedestrian and bicycle facilities as well as development of a trail/path maintenance policy.

**Parks and Recreation Plan (1993)**  
West Goshen's Parks and Recreation Plan of 1993 does provide recommendations for a trail/sidewalk network connections between parks, schools, and other community facilities and for bikeways. It further recommends a series of Subdivision & Land Development Ordinance amendments to implement these facilities, years, five to ten years, and ongoing.

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### Summary of Ordinance Inventory

### Recommendations

**Active Transportation Inventory | Chester County, PA**

**Documents Reviewed**

**Zoning Ordinance**  
(Adopted December 1972, Updated June 2019)  
The Zoning Ordinance is limited as it relates to active transportation. Sidewalks, with a minimum width of only five feet, are only required for educational facilities and retirement communities in the Industrial-Commercial District.

**Subdivision & Land Development Ordinance**  
(Adopted May 1976, Updated October 2005)  
The Township's Subdivision & Land Development Ordinance states sidewalks may be required at the discretion of the Board of Supervisors. Specific standards for their construction are defined and they must have a minimum width of five feet.

**Recommendations**

**Adopt requirements for sidewalk placement.** Amend the Subdivision & Land Development Ordinance to require construction of sidewalks along critical corridors and as part of all commercial, institutional, industrial, or high-density residential land development application.

**Adopt trail standards.** Minimum trail standards (i.e. type, width, easements, surface treatments, etc.) should be added to the Subdivision & Land Development Ordinance. Although dated, the Parks and Recreation Plan does offer a list of proposed Subdivision & Land Development Ordinance amendments for trails that could be utilized as a starting point for further evaluation of these types of regulations.

**Adopt on-road bike facility standards.** Dimensional standards as well as standard symbols and signage (i.e. sharrows, share the road signage, etc.) should be added to the Subdivision & Land Development Ordinance.

**Adopt bicycle parking standards.** Bicycle parking should be required, through a new subsection of the Zoning Ordinance's supplemental regulations, near the entrance of proposed buildings in mixed use, commercial, medium-high density residential, and institutional developments.

**Adopt bus stop standards.** Bus stop standards should be developed and required, through a new subsection of the Zoning Ordinance's supplemental regulations, to incorporate appropriate design elements for the design of bus stops utilizing the guidance given in the CCPC Multi-Modal Circulation Handbook.

**Adopt an Official Map.** CCPC recommends all municipalities consider adopting an Official Map and be inclusive of prioritized active transportation facilities. The Comprehensive Plan includes maps illustrating proposed active transportation facilities that can serve as the foundation of active transportation facilities to include on an Official Map. Adoption of an Official Map has further been identified as an overall key priority of the Comprehensive Plan.

**Consider development of a Pedestrian and Bicycle Mobility Plan.** The Comprehensive Plan identifies numerous active transportation facilities and locations for pedestrian and bicycle mobility. A formal Pedestrian and Bicycle Mobility Plan can further act to provide focus for an Official Map and take a holistic view of the Township as it relates to pedestrian mobility.

**Support implementation of the Central Chester County Bicycle and Pedestrian Circulation Plan.** The vision of the CCPC's Central Chester County Bicycle and Pedestrian Circulation Plan is for the region to have "healthy, vibrant, and economically viable communities that facilitate and encourage more walking and biking." The Comprehensive Plan includes a recommendation of the incorporation of this Plan's identified routes through the Township.

**Update the Park and Recreation Plan.** The Township Park and Recreation Plan has not been updated since 1993, and is intended to assist the Township in implementing long-term open space and park land planning policies. This plan can further implementation of active transportation infrastructure with recommendations.

**Be guided by multimodal references.** Please refer to the County-wide Summary Report for general regulatory document recommendations regarding definitions and design standards for active transportation facilities applicable to all municipalities, as outlined in the CCPC Multi-Modal Circulation Handbook.

**Moving Forward**  
One means to advance your municipality's current planning efforts is to apply for funding and/or technical assistance through the Planning Commission's Vision Partnership Program (VPP). For more information, please refer to the Municipal Corner found on the CCPC website: [www.chescoplanning.org/MuniCorner.cfm](http://www.chescoplanning.org/MuniCorner.cfm)

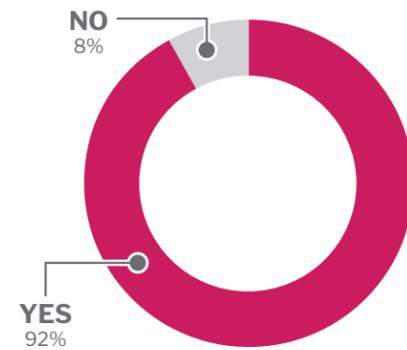
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## Inventory Summary

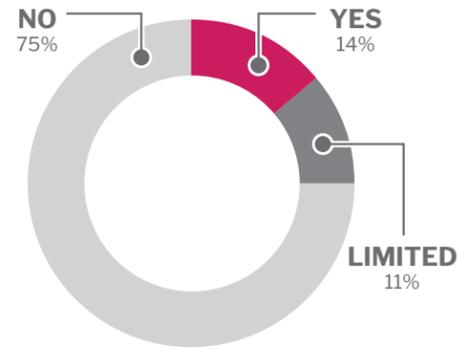
In summary, most municipalities have addressed active transportation development within their Comprehensive Plans. Many have carried the recommendations from their Comprehensive plans into their Zoning and Subdivision/Land Development Ordinances in a limited fashion. Some have been very proactive about active transportation development and have advanced separate plans and incorporated those plans into their Official Maps.

It is encouraging to see that many municipalities are now understanding the importance of active transportation infrastructure and how it benefits their communities, and have begun and/or continue to advance the measures into their regulatory documents to ensure that these facilities are implemented through the land development process. There is a direct relationship between general development pressures and the level to which each municipality has developed their active transportation measures, but more can be done to clarify where and when these facilities are required, both on the ground and within the regulatory documents that prescribe them.

Municipalities with **Active Transportation Goals** in their Comprehensive Plans

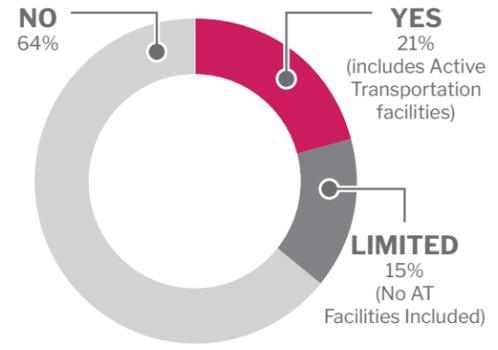


Municipalities with **Active Transportation Plans\***

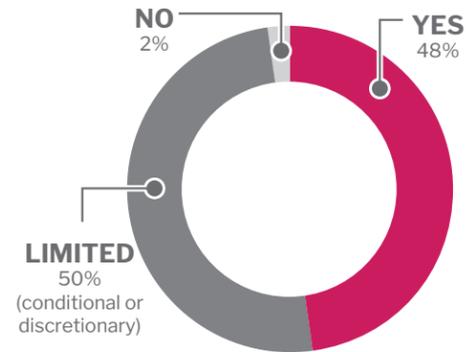


\*Percent of municipalities having recently (less than 15 years or so) done an active transportation/ multimodal/ trails plan. Includes multi-municipal efforts.

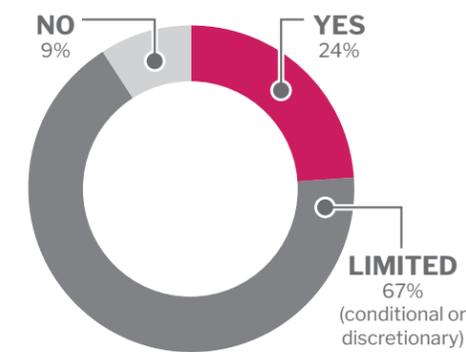
Municipalities with an **Official Map**



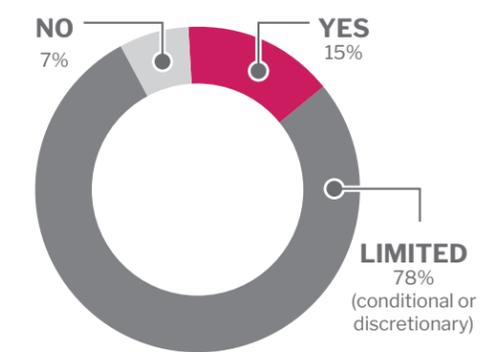
Growth Area Municipalities Requiring **Sidewalks**



Rural Resource Area Municipalities Requiring **Sidewalks**



Municipalities Requiring **Bicycle Parking**





# 04

## Recommendations

This chapter describes planning tools and ordinance amendments that will help implement active transportation infrastructure through the land development process.

### Planning Tools

#### Engage in Comprehensive Planning

The comprehensive plan helps a community prepare itself for future changes by documenting actions that need to be taken to guide the community based on the established goals. One of the critical components of a comprehensive plan is the circulation element which contains an outline of current transportation related conditions and recommendations necessary to address current and anticipated problems. An inventory of existing conditions enables a municipality to determine future transportation needs based on current trends, and the goals and objectives established by the plan.

One element of the transportation system often addressed within comprehensive plans are bicycle and pedestrian circulation. The recommendations concerning bicycle and pedestrian circulation and related facilities may be incorporated into the municipal Zoning and /or Subdivision/Land Development ordinances or Official Map. Comprehensive plan recommendations may also be to seek further study for bike/ped circulation as part of a separate advisory document.

Regional multi-use trail networks like the Circuit and other local intermunicipal trail networks that may connect parks, preserves or other destinations are the result of multi-municipal planning. Typically these networks arise from multi-municipal comprehensive planning efforts in which many Chester County municipalities participate. Recommendations from a regional comprehensive plan can then be adopted or reiterated by any one of the participating municipalities into their own comprehensive plans and thus carried through into their Zoning and Subdivision/Land Development Ordinances and/or Official Map.

### Prepare a Bike/Ped Mobility or Active Transportation Plan

A Bicycle/Pedestrian Mobility Plan is a specific study that focuses on the bicycle and pedestrian facilities within a community. These studies are focused more on the transportation aspect of these facilities than their recreational contributions. All active transportation related facilities are inventoried, including sidewalks, walkways, multi-use trails, use-restricted trails, crosswalks, and overall ADA accessibility. From this inventory, gaps are identified and then prioritized for implementation. Recommendations from these plans may then be adopted by municipal leadership as part of the comprehensive plan and/or have proposed facilities identified as improvements on an Official Map.

### Prepare a Greenways/Open Space & Recreation/Trails Plan

These plans are typically geared towards the recreation elements within a community and may or may not include trails as part of the discussion. Since trails serve recreation and transportation needs, these plans can identify additional facilities that will provide for a complete multimodal transportation system. Findings from these studies may result in recommendations for amending the comprehensive plan and/or adding recommended improvements to an Official Map.

### Adopt or Amend an Official Map

An Official Map can serve as the definitive source for the Township's desired active transportation network. Mapping included in the Comprehensive Plan, Open Space Plan, and regional plans can serve as the foundation of active transportation facilities to include on an Official Map

The Official Map is an important mechanism which can be used to turn goals of a comprehensive plan into reality. An "Official Map" is not a zoning map, a street map or a map from the comprehensive plan. It is a separate map which identifies public interest and need for the purpose of reserving lands for public use. An Official Map can be used as a tool to implement the transportation network and other community facilities.

An Official Map need not be a fully engineered map. A municipality may use property records, aerial photography, or other methods sufficient for identification, description and publication of the map components. For more information refer to Article IV of the Municipalities Planning Code.

## Ordinance Amendments

### Adopt Active Transportation Definitions

Active transportation terms should be added to both the Zoning and Subdivision & Land Development Ordinance definition sections that reflect all facility types proposed to be developed within the municipality. The definitions in each article should either be the same or consistent with each other. Sample language for the following active transportation related definitions may be found in this document's Appendix as well as within the *Multimodal Circulation Handbook*:

#### Bicycle Facilities

- Shared Roadway
- Share The Road Signage
- Sharrow
- Signed Bike Route
- Bicycle Boulevard
- Bicycle Lanes
- Cycle Track
- Bicycle Parking
- Bicycle Racks
- Bicycle Corrals
- Bicycle Stations

#### Pedestrian Facilities

- Crosswalk
- Sidewalk
- Walkway

#### Shared Use Facilities

- Multi-use Trails
- Sidepath
- Use-Restricted Trails
- Mid-Block Crossing

#### Public Transportation

- Bus Stop
- Bus Shelter



### Incorporate Design Standards

Design standards should reflect all of the facility types proposed within any bicycle/pedestrian element of a comprehensive plan or the recommendations of a separate Bicycle/Pedestrian Mobility, Greenway, Trails, or Active Transportation plan completed as an advisory document that the municipal leaders have chosen to adopt for municipal wide guidance toward implementation.

See the *Multimodal Circulation Handbook* for more information about design standards.

### Pedestrian Facilities

Pedestrian facilities should be included as an integral part of the transportation system within the urban, suburban, suburban center, and rural center livable landscapes as defined by the County's comprehensive policy plan Landscapes3.

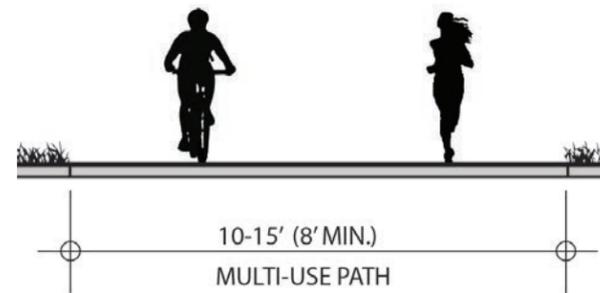
**Sidewalks** (and walkways) must have a minimum width of five feet, according to PennDOT's Design Manual 2 – Chapter 6: Pedestrian Facilities and the Americans with Disabilities Act. Sidewalks should be implemented in all urban and suburban settings within the region, where they may be 8' wide or greater, as appropriate.

**Crosswalks** provide high visibility to alert drivers of impending pedestrian interactions at intersections. Crosswalks are usually marked at intersections where there is a substantial amount of vehicular and pedestrian traffic, such as along school routes and at signalized and four-way stop intersections. In conjunction with crosswalks, pedestrian walk signs help pedestrians know when it is safe to crossover a roadway and countdown timers allow pedestrians the ability to anticipate when a traffic signal is turning in order to help pedestrians avoid unsafe conditions.

**ADA Accessibility** is a must. All sidewalks must have ADA curb ramps, as required by federal law. For specific ADA curb ramp design guidelines, municipalities should refer to PennDOT District 6-0's ADA Reference Guide for the most current information regarding proper installation of ADA curb ramps.

### Trails

Minimum trail standards (i.e. type, width, easements, surface treatments, etc.) should be added to the Subdivision & Land Development Ordinance. The following are the most common trail facilities and associated standards:



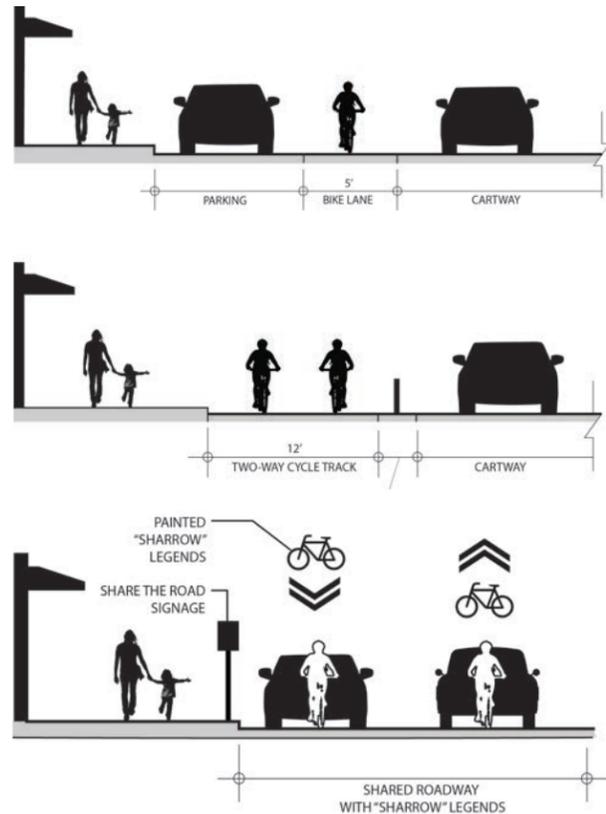
**Multi-use Trails** typically have a hard surface (e.g., asphalt, concrete, compacted gravel, etc.) and have a recommended width per AASHTO of 10,' although a minimum width of 8' may be used where space is constrained or in environmentally sensitive areas. Wider paths are also recommended if there is a high volume of existing or anticipated bicycle and pedestrian traffic.

**Sidepaths** are a subset of multi-use trails with the same design standards that parallel a roadway and can provide bicycle connections between on- and off-road facilities.

**Use-restricted Trails** are those that limit the allowable user groups based on one or more of the following factors: grades, surfacing, widths, potential user-conflict, ownership, and/or programming. Use-restricted trails can be narrower than the minimum standard for a multi-use trail (less than 8 feet wide). The width is a limiting factor towards the capacity of the trail to safely accommodate both pedestrians and bicyclists (or in-line skating, equestrians, and other uses) resulting in the potential for user conflict. This is why the most common restriction for these trails is for pedestrian use only. These trails can be hiking only, equestrian only, mountain biking only, or a combination thereof. While the Planning Commission encourages the development of trails to the multi-use standard wherever possible, the minimum width for trails to be developed as part of a planned residential development should be 5 feet.

### On-Road Bicycle Facilities

There are several different bicycle facilities that municipalities can employ to allow bicyclists to share the road with motor vehicles including bike lanes, cycle tracks, and “Share the Road” facilities.



**Bike Lanes** are typically located on roadways in urban and suburban settings with moderate to high vehicular traffic volumes and moderate to high posted speeds. PennDOT’s Design Manual requires a formal bike lane to be a minimum 5’ width with application of pavement striping, markings, and regulatory signage. Bicycle lane facilities should be oriented for one-way operation and carry bicycle traffic in the same direction as motor vehicles

**Cycle Tracks** separate bicyclists from all vehicle interaction using a barrier for two-way traffic, as seen in the figure below. Because there is a protective barrier in the roadway, a cycle track is considered generally more comfortable for a wider range of users.

**Shared Roadways** accommodate bicyclists and motorists in the same travel lane and is the most prevalent bicycle facility in the Region. Wide outside travel lanes, with widths of 12’ to 15’ are desired for shared roadway facilities, however a minimum four (4) foot shoulder is preferable. A shared roadway can be supplemented with “Share the Road” signage, Sharrows, or other pavement markers in conjunction with applicable municipal and PennDOT guidelines.

### Bicycle Parking

To accommodate recreational bicycling and bicycle mobility, it is essential that communities provide, or facilitate the provision of, secure bicycle parking and/or storage for a bicycle. Bicycle parking should be required near the entrance of proposed buildings in mixed use, commercial, medium-high density residential, and institutional developments. There are several options for short-term and long-term bicycle parking including but not limited to, bicycle racks, bicycle stations, and bicycle corrals.

### Bus Stops

The responsibility for public transit facilities on local streets falls on local government and development to support. SEPTA does not install street furniture, including shelters, on non-SEPTA property. SEPTA does support third-party efforts to make such improvements as long as they are done with SEPTA involvement for siting and use of SEPTA’s Bus Stop Design Guidelines. Municipalities should coordinate with SEPTA or the applicable service provider to determine the appropriate ridership level (daily boards) at any potential bus stop location so that the proper amenities can be provided at each bus stop. The following are general guidelines for the amenities to be included at bus stops based on ridership levels:

**Basic Stop:** daily boards of 5 or less

- Bus Stop sign printed on both sides to be visible from the roadway
- ADA accessible loading pad
- Paved pedestrian sidewalk/walkway connections (ADA accessible) leading to the nearest building entrance or connecting to an existing walkway system

**Collector Stop:** daily boards from 6-20 Includes all Basic Stop amenities plus:

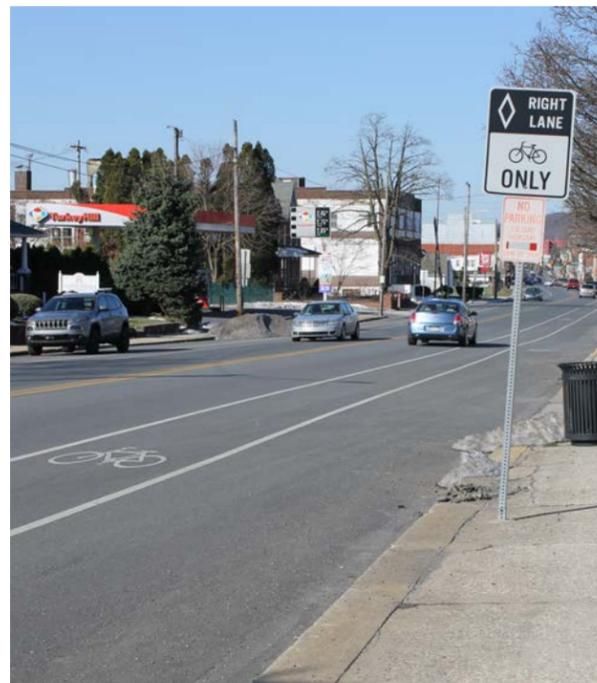
- Bus shelter
- System map indicating all transit routes serving the location
- Bench and trash receptacle
- Lighting

**Hub Stop:** daily boards from 21-50 Includes all Collector Stop amenities plus:

- Bus Shelters (minimum of 1, or a larger sized shelter)
- Benches and Trash Receptacles (minimum of 2 each)
- Bicycle Racks
- Real time status info/kiosk

### Replace Discretionary Language

Discretionary language allows municipal leadership boards or councils to decide whether active transportation infrastructure is necessary with each land development review. The Planning Commission recommends replacing discretionary language with concrete requirements when it comes to active transportation improvements. Discretionary language does provide flexibility to decide whether the proposed facilities are necessary on a site-specific basis, but it also fosters inconsistency and network gaps over time as leadership and attitudes toward active transportation development may change. One way to achieve this is to require developers to build active transportation infrastructure shown on an Official Map that coincides with the property to be developed (or redeveloped). Another way is to require sidewalks (for example) everywhere and make developers clearly demonstrate why the proposed facilities will NOT be feasible before granting a variance or waiver.



## Land Development Review Checklist

Land development reviews can be quite complex depending on the size and intensity of the proposed development. A simple checklist can help reviewers make sure that all elements that should be considered in a land development are addressed in the review. The following is a list of active transportation elements that may be included in such a checklist:

### Full List

A complete Land Development Review Checklist example may be found in the *Multimodal Circulation Handbook* ►

### Bicycle/Pedestrian

- Does the project site have an adjacent existing sidewalk/walkway system?
- Does the project site municipality have a bicycle/pedestrian mobility plan, or have any bicycle/pedestrian elements indicated on their Official Map or Comprehensive Plan?
- Is there an existing or planned regional multi-use trail located adjacent to or within a ¼ mile of the project site?
- Is there a proposed internal walkway system included with the proposed development?
- Does the proposed internal walkway system adhere to ADA standards (including required number of parking spaces, if applicable)?
- Is the proposed development a commercial, industrial, or institutional land use with equal to or greater than fifty thousand (50,000) square feet, OR a multifamily residential development with 50 or more dwelling units? If yes, is there proposed Bicycle Parking? If not within the thresholds noted above, would Bicycle Parking be appropriate for the proposed development/land use?

### Public Transportation

- Is the project site/proposed development located along an existing public transit route? Within ¼ mile?
- Is there an existing bus stop located at or adjacent to the proposed development? If yes, how many daily boards are associated with that stop?
- Is there a bus stop proposed with the development? If yes, are there sidewalks/walkways connecting the proposed bus stop to the nearest building entrance or existing pedestrian system?
- Is the proposed development a commercial, industrial, or institutional land use with equal to or greater than fifty-thousand (50,000) square feet? If yes, is there a proposed bus stop?
- Is the proposed development a residential development equal to or greater than one hundred (100) dwellings units? If yes, will the proposed community have school age children? If yes to one or both, is there a proposed bus stop(s)?
- Is there an opportunity to provide for a shared use Park and Ride facility?

## Resources

**Technical Assistance** can be provided by both the Community Planning Division which specializes in the creation and modification of comprehensive plans as well as zoning and subdivision/land development ordinances, and the Environment & Infrastructure Division which can provide direction regarding appropriate active transportation planning and design elements and implementation. Please contact the Planning Commission to let us know what specific areas of active transportation planning or implementation for which you need assistance. We will be happy to help.

The following are current county, state, and federal programs available to municipalities who are seeking additional funds to advance active transportation planning or implementation projects.

### Grants

For additional information on grant opportunities, please visit the Planning Commission's Municipal Corner.

[www.chescoplanning.org/MuniCorner.cfm](http://www.chescoplanning.org/MuniCorner.cfm) ►

### Planning Only

#### Vision Partnership Program

Chester County Planning Commission

The Vision Partnership Program (VPP) is a grant available to Chester County municipalities and multi-municipal groups seeking to improve their planning programs while achieving consistency with and implementation of the goals, objectives, recommendations, and map of Landscapes3.

**Match Requirements/Awards:**  
30% match required. Awards up to \$50,000 plus \$10,000 for each additional municipality (multi-municipal projects).

**Availability:**  
Spring and Fall each year (two rounds).

#### Transportation & Community Development Initiative (TCDI)

Delaware Valley Regional Planning Commission (DVRPC)

This program funds smart growth initiatives that implement DVRPC's long-range plan, Connections 2045. TCDI focuses on linking land use and transportation planning through projects that improve the overall character and quality of life; enhance the existing transportation infrastructure capacity; promote and encourage the use of transit, bike, and pedestrian modes; build capacity in the region's older suburbs and neighborhoods; reinforce and implement improvements in designated Centers; and protect the environment. Eligible applicants include municipalities and counties.

**Match Requirements/Awards:**  
20% match required.

**Availability:** Varies.  
Approximately every two years.

### Planning and Implementation

#### Community Conservation Partnerships Program (C2P2)

PA Department of Conservation and Natural Resources (DCNR)

DCNR's Bureau of Recreation and Conservation (BRC) assists local governments and recreation and conservation organizations with funding for projects related to parks, recreation and conservation, including non-motorized trails.

**Match Requirements/Awards:**  
50% match required for planning, acquisition, and development projects.

**Availability:**  
Applications typically due annually in mid-April.

#### Greenways, Trails, and Recreation Program

PA Department of Community and Economic Development (DCED)

Act 13 of 2012 establishes the Marcellus Legacy Fund and allocates funds to the Commonwealth Financing Authority for planning, acquisition, development, rehabilitation and repair of greenways, recreational trails, open space, parks and beautification projects.

**Match Requirements/Awards:**  
Minimum 15% match, max award \$250,000

**Availability:**  
Applications due annually on May 31st.

#### Regional Trails Program

DVRPC

This program provides planning assistance and financial support to trail developers, counties, and nonprofit organizations to complete the Circuit, Greater Philadelphia's 800-plus-mile network of multi-use trails.

**Match Requirements/Awards:**  
Minimum 20% match, max award \$300,000

**Availability:**  
Varies.

## Implementation Only

### Multimodal Transportation Fund

PennDOT and the PA Department of Community and Economic Development (DCED)

Established through Act 89, Multimodal Transportation Funds are available for transportation projects that feature one or more of the following components: coordinate local land use with transportation assets; streetscaping projects including lighting, sidewalk enhancements, and pedestrian safety; improvements to connectivity or utilization of existing transportation elements; and transit-oriented development projects.

**Match Requirements/Awards:**  
Minimum of 30%. Project awards range from \$100,000 to \$3M.

**Availability:**  
PennDOT—applications typically are due annually in December, however that has varied; PA DCED—applications due annually on July 31st.

### Transportation Alternatives Set Aside Program

PennDOT

The Transportation Alternatives Set-Aside (TA Set-Aside) provides funding for programs and projects defined as transportation alternatives, including on- and off-road pedestrian and bicycle facilities, infrastructure projects for improving non-driver access to public transportation and enhanced mobility, community improvement activities, environmental mitigation, recreational trail program projects, and safe routes to school projects. (Source: PennDOT)

**Match Requirements/Awards:**  
Awards are for 100% construction and are reimbursed (not a grant program). No specific match is required, however project sponsors are responsible for all other pre-construction costs (engineering, permit approvals, etc.) which are approximately 20% of total project costs, but could be more depending on project complexity. Minimum award for construction is \$50,000, max award \$1M. Projects are eligible for both regional and statewide funds.

**Availability:**  
Varies. Offered approximately every two years.

### Competitive Congestion Mitigation and Air Quality Improvement (CMAQ) Program

DVRPC

This program seeks to fund transportation projects that will improve air quality and reduce traffic congestion in the DVRPC region, including pedestrian and bicycle projects, transit improvement programs, and funding of transportation demand management programs. Eligible projects will demonstrably reduce air pollution emissions and help the DVRPC region meet the federal health-based air quality standards. This is a reimbursement program - not a grant program. Public agencies and public-private partnerships with a public agency sponsor are eligible to apply.

**Match Requirements/Awards:**  
Awards are for 100% construction and are reimbursed (not a grant program). No specific match is required, however project sponsors are responsible for all other pre-construction costs (engineering, permit approvals, etc.) which are approximately 20% of total project costs, but could be more depending on project complexity.

**Availability:**  
Varies.

### Community Revitalization Program

Chester County Department of Community Development

Eligible urban center municipalities can apply for funding to support infrastructure improvements, streetscape improvements, economic development opportunities, and other projects that support the revitalization of Chester County neighborhoods and communities.

**Match Requirements/Awards:**  
Required match is 25% of total project cost. Maximum award is not to exceed \$1,000,000 per year.

**Availability:**  
Annually in mid-March.



# Appendix

## Glossary

The terms included in this glossary may be used as sample language to include in active transportation related facility definitions.



### Pedestrian Facilities

#### Sidewalk

A pedestrian route, typically constructed of concrete and parallel to a street that provides a means for pedestrians to travel within the public right-of-way while physically-separated from vehicular traffic. Note: Sidewalks are designed for pedestrian use only.

#### Walkway

A designated single use facility with an improved surface, primarily for use by pedestrians, typically located outside of the road right-of-way and/or not directly adjacent to a street.

#### Crosswalk

A public right-of-way used for pedestrian travel across a roadway at an intersection or any portion of a block (mid-block crossing) to provide safe pedestrian access to adjacent roads, lots, or public use areas.



### Shared Use Facilities

#### Multi-Use Trails (Off -road facilities, intended for multiple user modes)

A facility that is physically separated from the roadway and typically accommodates bi-directional travel by both bicyclists and pedestrians. The trail can be located within a publicly owned right-of-way, an exclusive right-of-way, or an easement. Shared use trails typically have an improved surface (e.g., asphalt, concrete, compacted gravel, etc.) and have a recommended width (per AASHTO) of 10 feet, although a minimum width of 8 feet may be used where space is constrained or when located in environmentally sensitive areas.

#### Sidepath

A multi-use trail that parallels a roadway.

#### Use-Restricted Trails (Off -road facilities, only certain modes are accepted)

Trails that are primarily used for one form of travel or by one type of user such as bicyclists or pedestrians. These trails are typically paved or have an improved surface.

#### Mid-Block Crossing

A designated space within a roadway that allows bicyclists and pedestrians to cross a road safely at a location other than an intersection.



## Bicycle Facilities

A.

APPENDIX A: GLOSSARY

### Shared Roadway (Limited or no shoulder)

A street which accommodates bicyclists and motorists in the same travel lane. Typically the travel lanes are wider than what would be designed for automobile traffic only for the associated functional classification of the road and its context.

### Shared Roadway (Paved shoulder)

A street with a paved shoulder or wide curb lane that accommodates bicyclists adjacent to the vehicle travel lanes. A minimum four (4) foot shoulder is preferable, in conjunction with applicable municipal and PennDOT guidelines. Note: Shared Roadways may be a Signed Bike Route or include other indicators such as Share the Road Signs, Sharrows, or other pavement markers.

### Share The Road Signage

Supplemental signage added to a shared roadway to warn motorists of the increased likelihood of bicyclists.

### Sharrow

A pavement marking that increases driver awareness of shared roadway arrangements.

### Signed Bike Route

Wayfinding treatment that indicates the facility has been designated for bicycle use.

### Bicycle Boulevard

A street corridor treatment that prioritizes and enhances bicycle travel through the installation of traffic calming measures, signs, pavement markings, and crossing improvements. Note: These facilities are typically located on roadways with low traffic volumes which are suitable for bicycle travel.

### Bicycle Lanes (a striped travel lane for bicycles)

Designated travel lanes within the cartway or along the road shoulder for exclusive use by bicyclists. Bike lanes typically involve a combination of supplemental indicators including but not limited to Share the Road Signs and other pavement markings.

### Cycle Track

Travel lane for non-motorized vehicles with a physical barrier to other traffic. These may be designed for one-way or two-way travel.

### Bicycle Parking

A secure location on-site or within a facility for the temporary storage of bicycles.

### Bicycle Racks

Stationary fixtures on which a bicycle is held upright and securely attached (typically using a bicycle lock) to prevent theft.

### Bicycle Corrals

On-street bicycle parking facilities that make efficient use of on-street automobile parking spaces for bicycle parking in areas with a high demand.

### Bicycle Stations

Typically enclosed parking structures that securely house bicycles from theft and from the elements.



## Public Transportation

A.

APPENDIX A: GLOSSARY

### Bus Stop

A designated location - typically along a fixed bus route - where people gather to board and/or exit a bus.

### Bus Shelter

A transit user amenity located at a bus stop to provide convenience, comfort, and shelter from the elements in the form of a structure such as a canopy.

## Planning Commission Staff

**Brian O’Leary**, Executive Director

**Carol Stauffer**, Assistant Director

**Beth Cunliffe**, Office & Communications Manager

**Susan Elks**, Community Planning Director

**Paul Fritz**, Design and Technology Director

**Brian Styche**, Environment & Infrastructure Director

**Diana Zak**, Graphics Supervisor

**Brian Donovan**, Transportation Planner

**Rachael Griffith**, Trails & Open Space Planner

**Eric Quinn**, Transportation Planner

**Mark Gallant**, Senior Community Planner

**Kevin Myers**, Senior Urban Planner

**Chris Patriarca**, Senior Community Planner

**Glenn Bentley**, Senior Review Planner

**Wes Bruckno**, Senior Review Planner

**Paul Farkas**, Senior Review Planner

**Chris Bittle**, Senior Graphics Specialist

**Ian Mix**, Graphics Specialist

**Colin Murtoff**, GIS Planner

**Benny Nein**, Technical Services Specialist

**Carolyn Oakley**, Communications Supervisor

**Elle Steinman**, Communications Specialist

**Suzanne Wozniak**, Administrative Coordinator

**Nancy Shields**, Administrative Support

**Patti Strauber**, Administrative Support