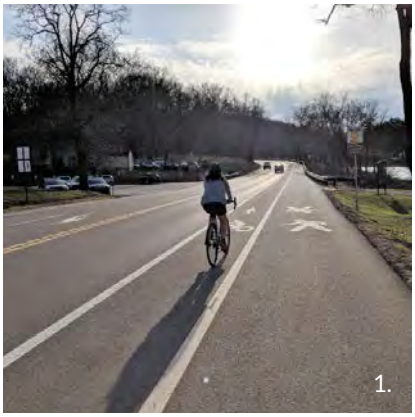
Regional
ACTIVE
Transportation Plan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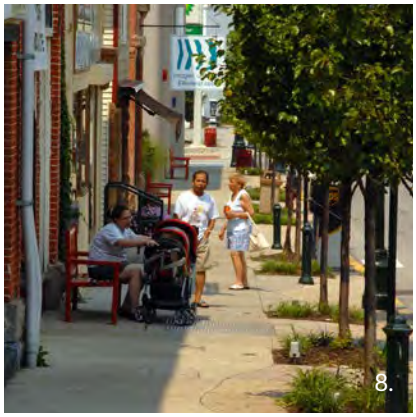
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for Southwestern Pennsylvania

2019

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2019

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Port Authority of Allegheny County
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Katharine Kelleman
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Alan Blahovec

Federal Transit Administration*
Theresa Garcia-Crews

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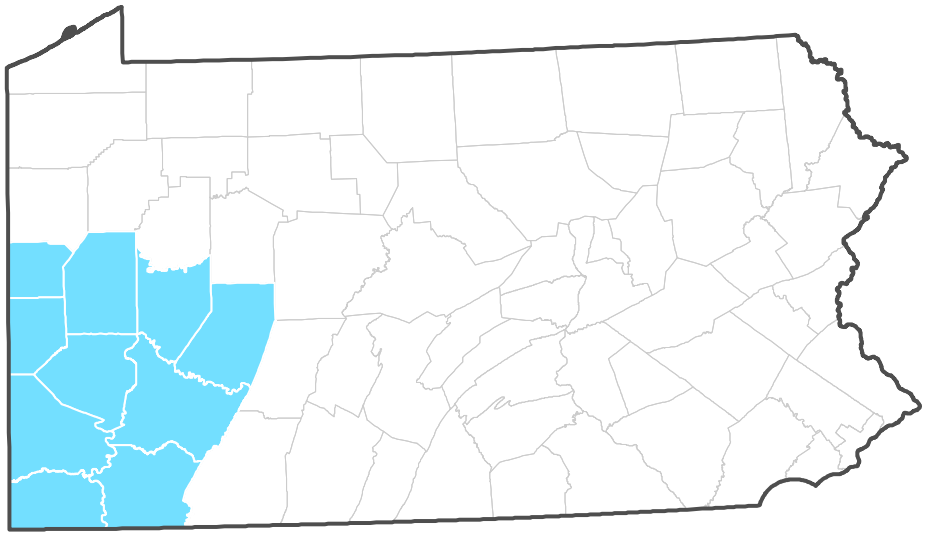
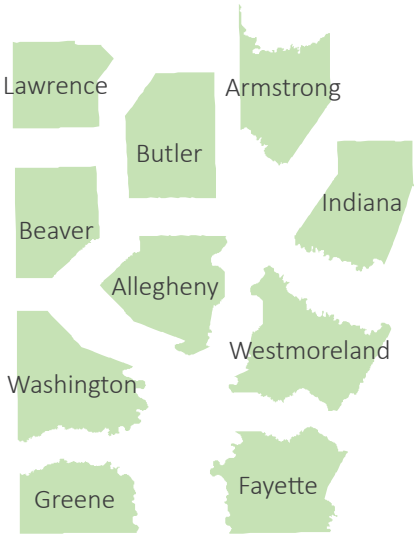
Introduction





OVERVIEW

The Region

The Southwestern Pennsylvania region comprises the counties of Allegheny, Armstrong, Beaver, Butler, Fayette, Greene, Indiana, Lawrence, Washington, and Westmoreland. It consists of 548 municipal governments and three engineering districts of the Pennsylvania Department of Transportation (PennDOT). Covering a total of 7,112 square miles, this part of the state includes high density urban areas, suburban communities, small towns and villages, and expansive rural areas.

10 Counties

7,112 Sq. Miles

548 Municipal Governments

3 PennDOT District Offices

- District 10-0
- District 11-0
- District 12-0

10. *Urban*

11. *Suburban*

12. *Small Towns & Rural*

Regional Vision: Transportation and land use that supports and enhances the regional economy and the communities within it.

The MPO and Planning

Southwestern Pennsylvania Commission (SPC) is the federally designated Metropolitan Planning Organization (MPO) that serves all ten counties in the region. As the MPO, SPC works with member planning partners to develop, coordinate, and implement long range and short range regional transportation plans. The current long range plan – *Mapping the Future: The Southwestern PA Plan* – prioritizes programs and projects aimed at maintaining, preserving, and enhancing the region's community and transportation assets. Successful implementation of this plan helps to ensure Southwestern Pennsylvania is an attractive place to live for people of all ages and income levels and also fosters an economically strong environment for businesses both big and small.

***Mapping the Future: The Southwestern PA Plan* includes a wide range of in-depth planning and programming documents, including:**

- The four-year Transportation Improvement Program
- Regional Operations Plan
- Transportation Safety Action Plan
- Congestion Management Process
- Regional Freight Plan
- Public Transit-Human Services Coordinated Transportation Plan
- Long Range Transportation Plan
- Comprehensive Economic Development Strategy (CEDS)

Together, these planning initiatives are instrumental in advancing the Regional Vision: ***Transportation and land use that supports and enhances the regional economy and the communities within it.***

A New Planning Role: Active Transportation

Successful regional planning recognizes and builds on existing planning efforts. Through outreach conducted as part of the long range planning process, strategies emphasizing a strong focus on safe and reliable multimodal transportation, adequate maintenance of transportation infrastructure, and developing sustainable active communities were consistently shown as important themes. Based on this feedback, SPC set out in 2016 to develop a new and important component to the region's long range plan.

This document, the *Regional Active Transportation Plan for Southwestern Pennsylvania (ATP)*, is intended to provide not only a cohesive vision for primarily non-motorized travel across the region, but also technical guidance to local governments seeking to achieve their respective local active transportation goals.

WHAT IS ACTIVE TRANSPORTATION?

The term "active transportation" refers to any human-powered mode of transportation that engages people in healthy physical activity while they travel from place to place – primarily walking and bicycling. Active transportation also supports transit use, since most people reach transit stops on foot or by bike and often make other walking and biking trips during the course of their day.

Why is it Important?

Bicycling and walking are important transportation options and there is growing interest in living in communities where there are safe and convenient options for transportation other than automobiles (FHWA).

People walking, bicycling, using wheelchairs, skateboarding, and roller blading are engaged in active transportation.

Active transportation trips are being made for a variety of purposes. People of all ages, abilities and income levels walk and bike for everyday travel, recreation, and to get to and from jobs, education, health care, transit, and other essential services.

Active transportation investments have the potential to help mitigate the effects of climate change, improve livability, encourage physical activity, increase access to services, and better serve the transportation-disadvantaged population. Studies suggest that lower income households, people with disabilities, young people, and racial minorities are more likely to walk, bike and use transit than other populations (Safe Route to School National Partnership). In addition, a number of people are unable to drive—because of age, disability, choice or license restrictions. Providing safe, convenient and comfortable walking and bicycling infrastructure serves all users more equitably by providing transportation options for those who may not have access to other modes of transportation.

Broad demographic trends in the U.S. and in the Southwestern Pennsylvania region indicate that the fastest growing cohort is aged 64 and older (U.S. Census Bureau). An aging of the population demonstrates the need to provide active transportation choices that facilitate the maximum degree of personal independence for people of differing abilities.

Creating more walkable communities can help ensure that older adults have more options for healthy aging and can also help them remain functional and active so that they can successfully age in their homes and communities.

Strategies to reduce carbon-intensive travel activity include making improvements to transit and investing in bicycle and pedestrian infrastructure and supporting programs.

Safe, convenient, and comfortable pedestrian and bicycling environments are key components of livable communities that improve quality of life by:

14. *Engaging people in healthy physical activity while they travel from place to place*

15. *Providing access to jobs, education, health care, transit, and other essential services*

16. *Ensuring that there are travel options for those who do not have access to an automobile or choose not to use one*

Benefits of Active Transportation

SPC recognizes that walking and biking have positive benefits on the environment, economic development, health, safety and overall quality of life for residents within the region. Multimodal transportation networks provide safe, sustainable travel for all users and differing levels of mobility, providing for all modes, including walking, bicycling, public transportation, and driving.

Who Benefits?

Investments in active transportation benefit all users of the transportation system, whether they walk, ride a bike, take transit, or use an automobile. Walking and bicycling networks play a role in reducing traffic congestion on major highways by enabling local travelers to replace short driving trips with non-motorized and/or transit trips. Walking and bicycling networks also play a role in greenhouse gas (GHG) reductions and are relatively inexpensive compared to highway investment. In addition, walking and bicycling provide low-cost mobility options that place fewer demands on local roads and highways and help to increase air quality.

Well-connected bicycle and pedestrian networks promote overall community accessibility and improve access to public transit. Providing safe and regularly maintained bicycle and pedestrian connections to transit makes it safer and easier for people to get to and from transit stops and stations.

An integrated multimodal system benefits local economies by providing:

1. *Access to workers, materials, and markets.*
2. *Safe, reliable, rapid, cost-effective, energy conserving, and environmentally friendly means of moving goods and passengers.*
3. *Contribution to economic growth.*
4. *Improved quality of life regardless of where residents live.*
5. *Lower cost on overall transportation system due to less wear and tear on roadways.*

Investments in active transportation benefit all users of the transportation system:

1. *The presence of well-connected bicycle and pedestrian networks can play a role in reducing traffic congestion on major highways by enabling local travelers to replace short driving trips with non-motorized and/or transit trips.*
2. *Walking and bicycling provide low-cost mobility options that place fewer demands on local roads and highways and help to increase air quality and tackle climate change.*
3. *More people walking, biking and taking transit make our streets safer for all users.*

ABOUT THE PLAN

The *Regional Active Transportation Plan for Southwestern Pennsylvania* is a supplemental plan to *Mapping the Future*. It builds on policy goals and objectives that support active transportation and identifies recommended strategies to assist local governments in planning and building active transportation systems. In addition to the recommended strategies, the plan highlights important design guidance documents that describe ways to enhance multimodal planning capabilities and establish cohesive bicycle and pedestrian networks.

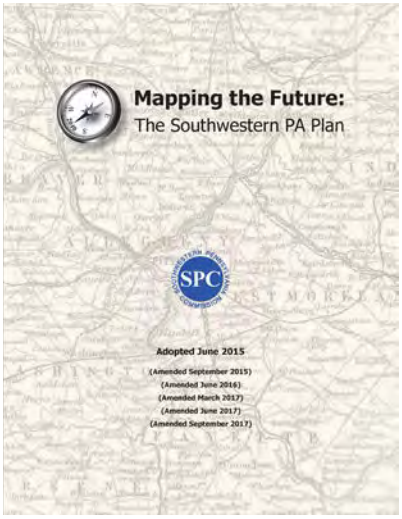
PLANNING CONTEXT

Providing residents in the region safe multimodal travel options and making activity centers, jobs, school, recreational facilities, and public transit more easily accessible addresses four important themes that were named in *Mapping the Future*. The themes are as follows:

- Emphasizing a strong focus on safe and reliable multimodal transportation
- Adequately maintaining transportation infrastructure
- Growing our regional economy
- Developing sustainable active communities

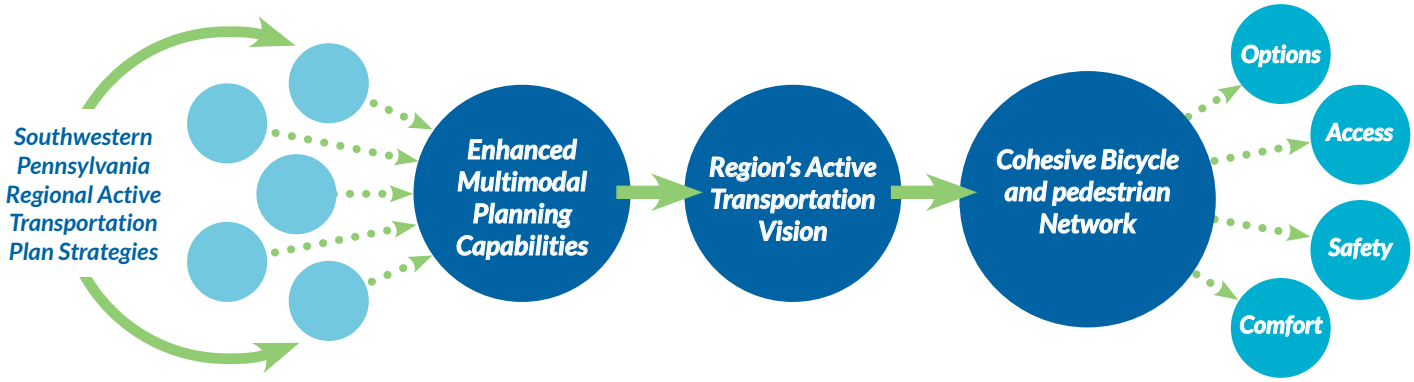
Relationship to County and Municipal Active Transportation Plans

Since many of the strategies and projects for improving conditions for people who walk and bike are planned for and implemented at a local level, this plan focuses on providing a regional context to the manner in which local planning and project implementation helps to achieve the Regional Vision and Policy Goals as set in the region's long range transportation plan. The Plan also provides technical resources that local governments and other stakeholders may use as they plan for and implement active transportation solutions in the region. Active transportation plans at all levels of government should complement each other. While these plans may have different objectives, specifically tailored to meet individual needs, the underlying concept of providing safe, well-thought-out connections for pedestrians and bicyclists is constant. The ***Regional Active Transportation Plan*** does not replace these plans, but instead provides a regional framework to help knit together local plans and projects.



Mapping the Future *surveys showed strong interest in active transportation options throughout the region. This plan provides a framework to move the region significantly toward its goal of advancing active transportation in Southwestern Pennsylvania.*

https://www.spcregion.org/2040/



Consistency with Federal and State Guidance

Not only does this plan align with the regional long range plan, but it also builds on and was developed within the context of existing federal and Commonwealth of Pennsylvania guidance and policies that support and promote active transportation. In particular, the following documents provide the foundation for this plan's development:

United States Department of Transportation (USDOT) Policy Statement on Bicycle and Pedestrian Accommodation Regulations and Recommendations

On March 11, 2010, the USDOT officially stated its support for the development of fully integrated active transportation networks in its Policy Statement on Bicycle and Pedestrian Accommodation Regulations and Recommendations; noting that investments in bicycle facilities and walking networks can help meet goals for cleaner, healthier air, less congested roadways, and more livable, safe, cost-efficient communities.

Federal Highway Administration (FHWA) Bicycle and Pedestrian Facility Design Guidance

FHWA supports and promotes the development of bicycle and pedestrian networks, which they define as "interconnected pedestrian and/or bicycle transportation facilities that allow people of all ages and abilities to safely and conveniently get where they want to go"(FHWA). FHWA has developed numerous resources over the last few years to focus attention on this important topic and help communities plan, design, implement, and maintain connected bicycle and pedestrian networks.

Pennsylvania Department of Transportation (PennDOT) Bicycle and Pedestrian Planning

PennDOT is developing an updated Bicycle and Pedestrian Master Plan for Pennsylvania that will outline a vision and framework for improving conditions for walking and bicycling across Pennsylvania, most notably for those Pennsylvanians who walk and bicycle out of necessity rather than for leisure and recreation. The Master Plan will identify and help prioritize strategies that increase the number of people walking and bicycling, while supporting safety and multimodal connectivity throughout the state. The Plan will include goals, objectives, and performance measures for biking and walking, along with guidance on ways to improve local bicycle and pedestrian planning and design efforts.

U.S. DOT Policy Statement on Bicycle and Pedestrian Accommodation Regulations and Recommendations

The DOT policy is to incorporate safe and convenient walking and bicycling facilities into transportation projects.

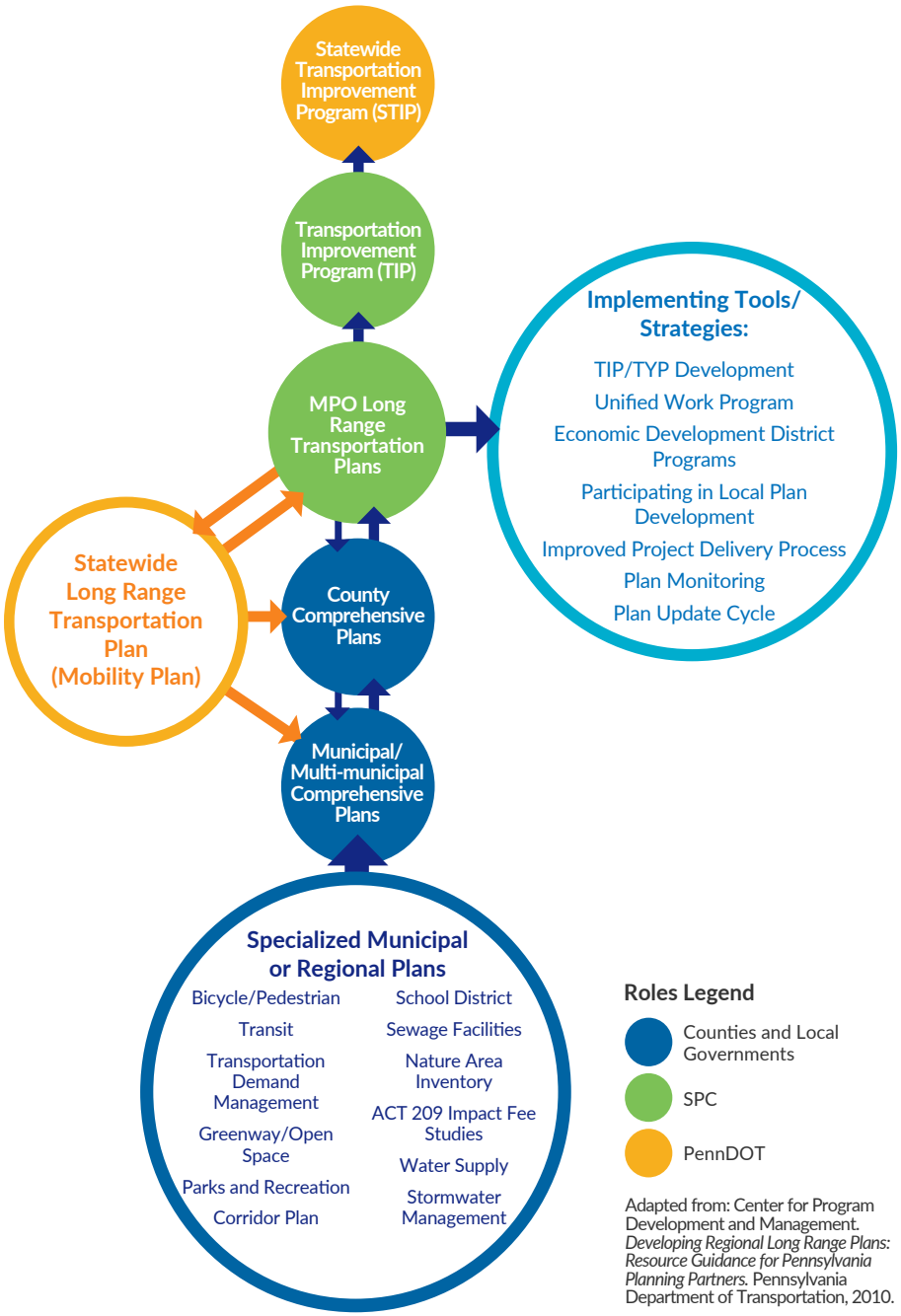
Every transportation agency, including DOT, has the responsibility to improve conditions and opportunities for walking and bicycling and to integrate walking and bicycling into their transportation systems.

Because of the numerous individual and community benefits that walking and bicycling provide — including health, safety, environmental, transportation, and quality of life — transportation agencies are encouraged to go beyond minimum standards to provide safe and convenient facilities for these modes.

ROLES AND RESPONSIBILITIES

Because MPOs typically neither own nor operate the transportation systems they serve, they are usually not involved in operating or maintaining bicycle and pedestrian infrastructure. Rather, MPOs serve an overall coordinating and consensus-building role in planning, providing technical support, and programming funds for projects and operations.

For the preparation and subsequent implementation of the *Regional Active Transportation Plan for Southwestern Pennsylvania*, it is important for the roles and responsibilities of the MPO as well the different levels of government with which it works to be clearly defined.



Adapted from: Center for Program Development and Management. *Developing Regional Long Range Plans: Resource Guidance for Pennsylvania Planning Partners.* Pennsylvania Department of Transportation, 2010.

Crucial Local Component

Local governments in the region are responsible for:

16,685 linear miles of roadways

***67%** of the **24,903** total linear miles of roadways*

1,502 bridges

***22%** of the **6,831** total bridges*

Nearly half of the region's overall transportation system consists of locally owned transportation assets

The diagram (left) shows how local planning serves as the base for project programming, as local governments raise the profile of their active transportation plans at the regional and state levels, and seek funding.

FEDERAL FUNDING PROGRAMS

FAST Act Funding Programs

- Surface Transportation Block Grant Program
- Surface Transportation Block Grant Set-Aside Program
- Congestion Mitigation and Air Quality Improvement Program

Highway Safety Improvement Programs

National Highway Traffic Safety Administration

- Section 402 State Highway Safety Grant Program
- Section 406(h) National Priority Safety Program

At the Federal Level

The primary federal roles in transportation planning are played by Congress and the United States Department of Transportation (USDOT). Congress passes an act authorizing federal surface transportation funding programs – currently the Fixing America's Surface Transportation (FAST) Act – which updates Title 23 of the U.S. Code. The USDOT and its agencies, the Federal Highway Administration (FHWA), Federal Transit Administration (FTA), and the National Highway Traffic Safety Administration (NHTSA), issue guidance, provide technical assistance, and ensure compliance with federal law and regulations.

FAST Act Funding Programs

Through the FAST Act, Congress authorizes federal funding programs and defines the activities and implementing entities that are eligible for the funds. Pedestrian and bicycling projects are broadly eligible for federal transportation funds. The primary funding programs that are used for pedestrian and bicycling projects are the Surface Transportation Block Grant Program (STBG), the Transportation Alternatives Set-Aside Program (also known as the Surface Transportation Block Grant Set-aside Program), and Congestion Mitigation and Air Quality (CMAQ) Improvement Program.

The Highway Safety Improvement Program (HSIP) may also fund walking and bicycling projects. Typically, STBG and HSIP do not fund standalone bicycle and pedestrian projects; rather, bicycle and pedestrian elements are built into larger projects that use these sources.

Two safety programs administered by NHTSA, Section 402 State Highway Safety Grant Program and Section 405(h) National Priority Safety Program (Non-motorized Safety), may be used for walking and bicycling non-infrastructure safety programs. Funds from these programs are distributed to the states and generally administered at the state level.

Regional Sub-Allocation

Portions of the Surface Transportation Block Grant Program and Transportation Alternatives Set-Aside Program funds are sub-allocated to larger MPOs, such as the Southwestern Pennsylvania Commission. SPC uses competitive processes to allocate these funds. Every two years, SPC solicits candidate projects and utilizes a variety of metrics to evaluate and select projects for funding. For example, a portion of SPC's Urban Surface Transportation Funds are used for the Livability Through Smart Transportation Program (SMART). This program encourages collaboration among potential project sponsors to plan and implement strategies consistent with the policies of the region's adopted long range plan as well as local and county comprehensive plans. A Smart Transportation project links transportation investments and land use planning to decision-making, creating transportation facilities that are safe, sustainable, and responsive to the needs of all users and support community planning goals.

CMAQ funds also go through a competitive, regional project evaluation and selection process in the SPC region. It is SPC's long-standing policy to award CMAQ funds to projects that have the greatest potential to increase air quality and relieve congestion.

At the State Level

The Pennsylvania Department of Transportation is the lead agency for developing, implementing and maintaining the Commonwealth of Pennsylvania's transportation system. It is responsible for highways, bridges, airports, railroads, ports and waterways, and bicycle and pedestrian facilities. PennDOT plays an important role in the planning, funding, construction, and maintenance of bicycle facilities through statewide policy-making and planning.

PennDOT's active transportation activities are described below.

State Bicycle Pedestrian Coordinator

The Commonwealth's Bicycle and Pedestrian Coordinator is responsible for managing PennDOT's bicycle and pedestrian program. The coordinator serves on statewide, regional, and national committees and task forces. A large part of the job is to encourage interagency cooperation. The coordinator works closely with municipal officials, legislators, transit agencies, and professional and advocacy bicycle and pedestrian organizations.

PennDOT Connects Initiative

PennDOT Connects is a new approach to project planning and development, announced by PennDOT in early 2017. It expands the department's requirements for engaging local governments and planning partners. This initiative requires collaboration with stakeholders before project scopes are developed and before funds are programmed onto the Transportation Improvement Program (TIP).

PennDOT Connects aims to ensure that "community collaboration happens early, and that each project is considered in a holistic way for opportunities to improve safety, mobility, access, and environmental outcomes for all modes and local contexts" (PennDOT). Collaboration occurring earlier in the process is intended to help meet current and projected community needs and can reduce costly scope and schedule changes later in the project development process.

The initiative is specifically meant to consider transportation improvements holistically by increasing discussions about bicycle and pedestrian accommodations, as well as safety, transit access, stormwater management, utility issues, local and regional plans and studies, freight-generating land uses, and other important issues. It presents an opportunity for bicycling and walking projects to be integrated into PennDOT projects, especially in communities that have strong local plans in place. Under PennDOT Connects, community transportation needs will be assessed based on local comprehensive plans and other local planning studies, such as bicycle, pedestrian, and trail plans. Local governments should be able to show that bicycle and pedestrian features are a documented element of the community vision. Once the community need is established, cost should not be a reason to exclude bicycle and pedestrian components in a project. It is important to note that if bicycle and/or pedestrian accommodations are included in a PennDOT project as a result of the PennDOT Connects process, local governments will be expected, through a maintenance agreement, to maintain the bicycle and/or pedestrian facilities.

STATE FUNDING PROGRAMS

PennDOT

- Multimodal Transportation Fund

Department of Community & Economic Development (DCED)

- Multimodal Transportation Fund
- Greenways, Trails and Recreation Program

Department of Conservation & Natural Resources (DCNR)

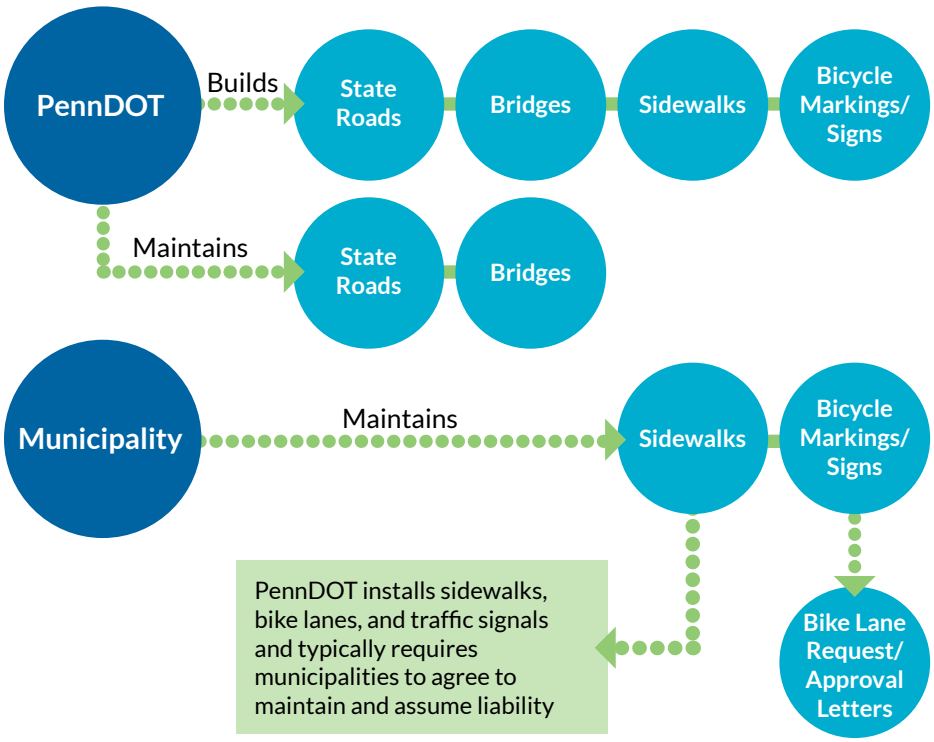
- Community Conservation Partnerships Program (C2P2)

SPC's role in the PennDOT Connects process to provide expertise in transportation planning to act as a conduit between local governments and the PennDOT project development process. This includes helping local governments translate how the local context and community needs can be better served through the transportation improvement that is being proposed in their community. SPC is also available to assist local governments in defining the mobility vision for their respective community through technical planning assistance, data analysis and mapping.

Transportation Advisory Committee (TAC) Bicycle and Pedestrian Policy Study

The Pennsylvania State Transportation Advisory Committee (TAC) was established in 1970 by Act 120 of the State Legislature, the same act which created the Pennsylvania Department of Transportation. The TAC assists the Secretary "in the determination of goals and the allocation of available resources among and between the alternate modes in the planning, development, and maintenance of programs and technologies for transportation systems" (PA State Transportation Commission) and provides advice on "the planning, programs, and goals of the Department and the State Transportation Commission" (PA State Transportation Commission) related to the different modes. The TAC writes studies on important issues and acts as a liaison between PennDOT and the public.

The Transportation Advisory Committee commissioned and, in 2016, released its *Bicycle and Pedestrian Policy Study*, which offers a thorough analysis of current bicycle and pedestrian planning practices in the Commonwealth. The report presented the TAC's bicycle and pedestrian policy recommendations to the State Transportation Commission (STC) for its consideration and endorsement. The report provides information on bicycle and pedestrian planning and policy, recommends policy, and provides a recommended policy implementation strategy.



PennDOT District Offices

PennDOT Districts 10, 11, and 12 have jurisdiction within the SPC region and, on a day-to-day basis, PennDOT works with SPC, counties and local municipalities through these local districts. District Bicycle/ Pedestrian Coordinators play a role in coordinating active transportation plans and projects. PennDOT has also created a District Planner position in each PennDOT District. These planners will work with SPC and local governments to identify project needs and support local transportation efforts, including bicycling and walking.

At the MPO Level

The long range plan is a performance-based, 25-year transportation and development plan that sets the policy and investment foundation for all of SPC's initiatives. The plan is required to be updated every four years, in air quality non-attainment and maintenance areas, in order to confirm the transportation plan's validity and consistency with current and forecasted transportation land use conditions and trends. The implementation of the LRP is a multifaceted endeavor for translating the plan's policy goals, strategies, and Regional Vision into measurable, achievable actions that are implemented through the close collaboration and coordination among SPC's federal, state and local planning partners.

The Transportation Improvement Program (TIP) is a short-range program, listing highest priority surface transportation projects and programs that will be undertaken over the next four years in the 10-county SPC region. The TIP is developed by a continuing, comprehensive and cooperative transportation programming process that involves various planning partners, local project sponsors, stakeholders and the public, and is the main implementation vehicle to advance the policies, goals and strategies found in the long range plan.

Among other things, a long range plan shall consider projects and strategies that will increase the safety and security of the transportation system for "non-motorized users," increase the "accessibility and mobility of people," and "enhance the integration and connectivity of the transportation system, across and between modes, for people and freight" (23 U.S. Code §450.324).

In addition to creating these plans, an MPO is also required by the federal government to:

- Involve stakeholders in its Public Participation Plan process.
- Develop performance measures and targets.
- Exercise project selection authority for portions of select federal funding program funds.

Pennsylvania's TAC *Bicycle and Pedestrian Policy Study* recommends that MPOs across the Commonwealth develop regional bicycle and pedestrian plans in cooperation with PennDOT Multimodal and Planning and Programming staff in the Districts and PennDOT's Deputate for Planning and Programming.

Additionally, PennDOT relies on MPOs such as SPC for external coordination efforts. SPC is called upon to coordinate with municipalities and other regional stakeholders, including public transit agencies, educational institutions, trail groups, public health agencies, elected officials, businesses, bicycle and pedestrian groups, and the general public.

Coordination activities include:

- Promoting the incorporation of bicycle and pedestrian projects in local comprehensive plans.
- Working with local representatives and advocacy groups to solicit local feedback regarding multimodal needs.
- Connecting local governments with PennDOT, making it possible for them to receive both state and regional guidance and support for their community-based pedestrian and biking visions.

And, as with any planning endeavor, SPC can be called upon as a resource for helping to develop appropriate performance measures and targets, as well as general transportation planning assistance, to guide a local government's bicycle and pedestrian activities.

At the Local Level

Counties

With ten counties in the SPC region, the number and depth of active transportation planning activities occurring within each county varies.

In general, the primary role counties play in planning for active transportation is through the development of a county comprehensive plan that identifies bicycle and pedestrian projects and priorities. Projects identified in these plans may be incorporated into regional and state plans and help inform SPC and PennDOT that active transportation should be supported in any state projects in that area.

Local Municipal Governments

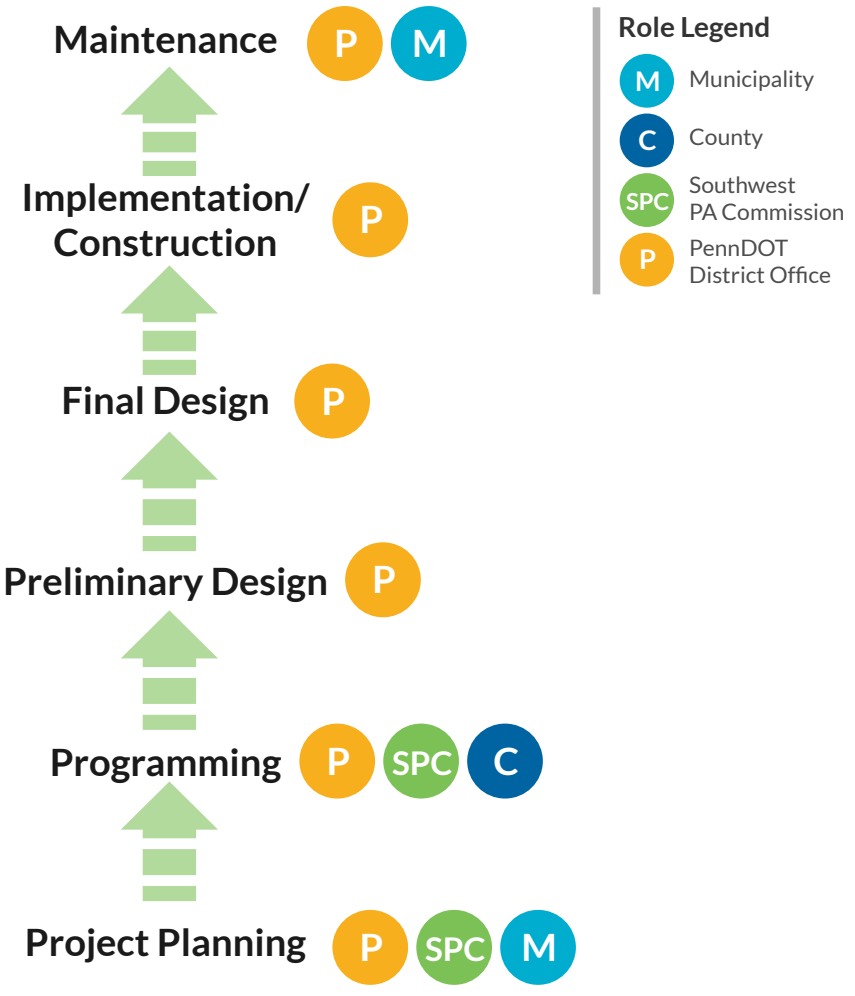
Local governments in the SPC region engage in the following activities to support active transportation:

- Identify bicycle and pedestrian project needs.
- Conduct detailed bicycle and pedestrian corridor or sub-area planning.
- Incorporate active transportation projects into greenway, trail, parks and recreation, schools, and other plans.
- Pass ordinances that support desired infrastructure improvements, such as sidewalk maintenance requirements, which are required by PennDOT before sidewalks are built.
- Fund maintenance for priority bicycle facility in the municipal borders.
- Implement program activities such as Safe Routes to School and other local awareness campaigns.

Projects that involve federal or state funds in the region also involve PennDOT and SPC.

Local projects using only local sources of funding generally do not.

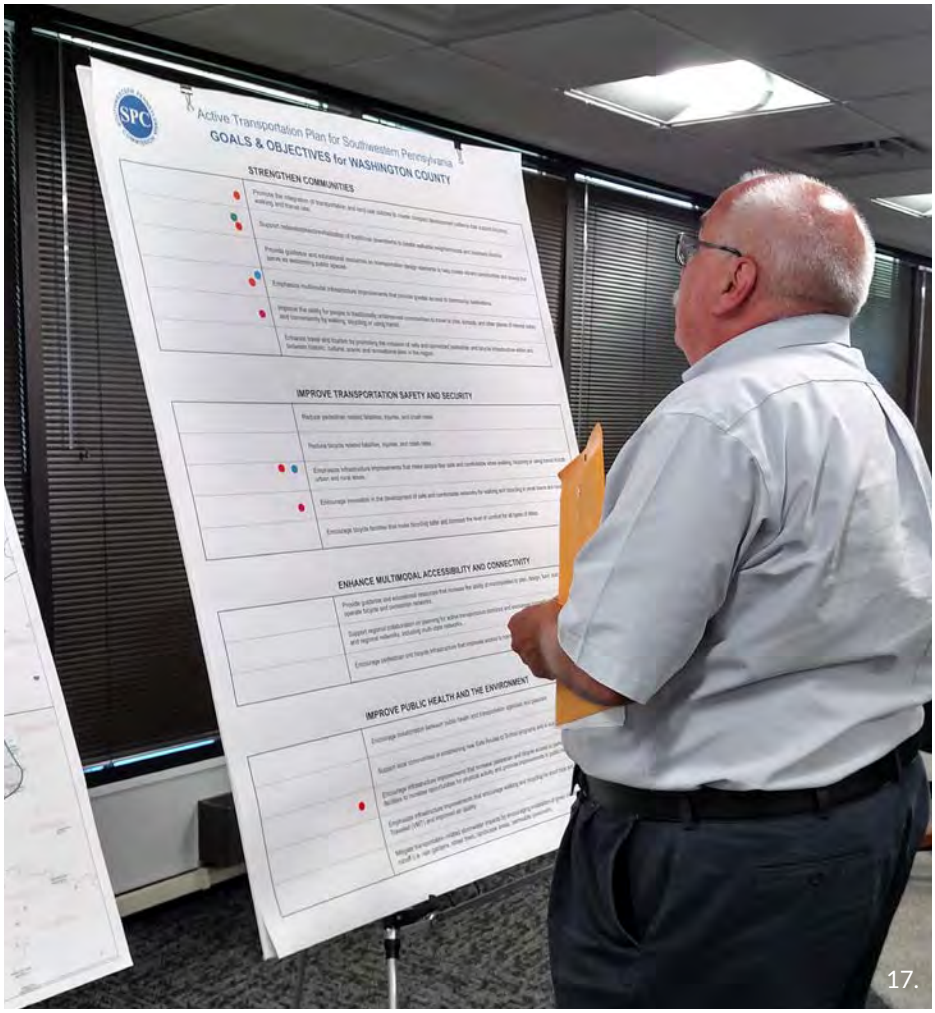
Project Delivery Process for County and Local Projects Using State and Federal Funds



SECTION 2
Public Engagement

Extensive public engagement was conducted throughout the development of the *Regional Active Transportation Plan for Southwestern Pennsylvania*. The different outreach strategies that were used provided important opportunities for the general public, planning partners, stakeholders and other interested parties to share information, ideas, needs, and priorities associated with advancing the region's active transportation vision.

Beginning with a series of stakeholder meetings and listening sessions, planning staff met with member counties, state agencies, local municipalities, transportation professionals, transit providers, and active transportation advocates to learn more about their specific roles and responsibilities in terms of delivering projects and operating and maintaining bicycle and pedestrian infrastructure. These early input opportunities were followed up by development and implementation of two online surveys.



17.

STAKEHOLDER MEETINGS

Active Transportation Forum


18.

To develop a thorough and detailed plan for creating a comprehensive, safe, and accessible multimodal network in Southwestern Pennsylvania, planning staff turned to its quarterly Active Transportation Forum meetings to both share and gather information about walking and biking in the region. Typically in attendance at these meetings are representatives from county and city planning agencies, local area PennDOT districts, bicycle and pedestrian organizations, public transit providers, Transportation Management Associations (TMAs), and a broad range of advocacy groups. Their motivation to participate and provide public input stems from a strong interest in expanding active transportation options in Southwestern Pennsylvania communities, which can help to ensure greater and more equitable access to jobs and essential services for people of all ages, abilities, and incomes.

Participants in the Active Transportation Forum engaged in a variety of mapping exercises, question and answer sessions and review activities across the scheduled meetings that occurred during the planning process for this plan. In addition, the Forum members provided an assessment of a set of draft active transportation objectives, which had been developed in collaboration with a broad range of regional partners.

Public Participation Panels

SPC brings planning directly to its member counties through county-based Public Participation Panels (PPPs). The role of the PPPs is to review and comment on major SPC transportation and planning decisions, such as the long range plan and Transportation Improvement Program (TIP). The PPPs help to conduct outreach, identify needs and resources, suggest alternatives, and assist in the evaluation of implementation strategies in the planning process.

Altogether, the ten PPPs in the region comprise more than 300 individuals reflecting the demographic diversity, needs, and concerns of residents and communities in each county.

Throughout May 2017, PPP sessions were held around the region. At these sessions, government officials and their appointed PPP representatives had the opportunity to discuss the proposed 2019-2022 Transportation Improvement Program (TIP). In addition to seeking TIP feedback, planning staff used these sessions to get those in attendance directly involved in the active transportation planning process. Along with the mapping exercise, participants were asked to assess a listing of draft active transportation objectives. Having a final set of objectives that have been thoroughly reviewed by stakeholder groups and citizen representatives helped to lay the groundwork for establishing ATP performance metrics later in the planning process.

SPC Standing Committees

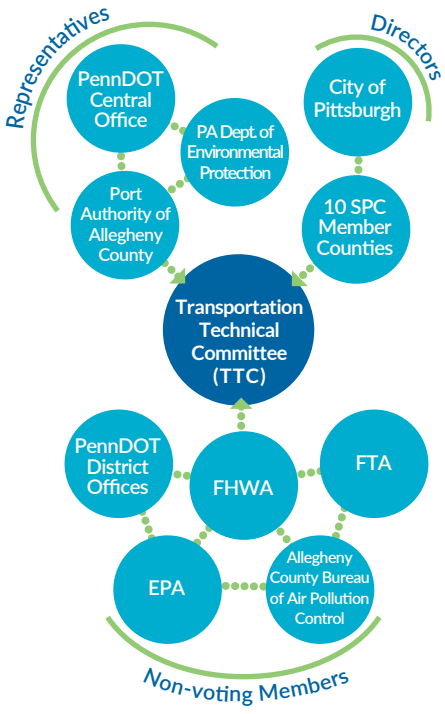
Two standing committees of Southwestern Pennsylvania Commission were also called upon to help identify region-wide bicycle and pedestrian needs and resources and assist in the active transportation planning process by making recommendations relating to proposed active transportation objectives and ATP development strategies.

TRANSPORTATION TECHNICAL COMMITTEE (TTC)

The Transportation Technical Committee deals exclusively with technical issues relating to transportation. It is charged with making recommendations to SPC on a range of matters including the Transportation Improvement Program, transportation-related air quality plans, and other regionally significant transportation issues.

The TTC includes the planning directors of the ten SPC member counties, City of Pittsburgh, and representatives of PennDOT Central Office, Pennsylvania Department of Environmental Protection, and Port Authority of Allegheny County. Non-voting TTC members include PennDOT District Offices, FHWA, FTA, Environmental Protection Agency, and the Allegheny County Bureau of Air Pollution Control. It meets each month in advance of Commission meetings, and, as needed, creates sub-committees tasked with specific assignments.

Beginning in February 2017, the TTC was engaged in following the progress of the active transportation planning effort and providing both program and project-specific feedback concerning the ATP at its monthly meetings.



TRANSIT OPERATORS COMMITTEE (TOC)

SPC's Transit Operators Committee focuses on common transit issues of regional interest and is primarily responsible for recommending the region's annual allocation of federal and state funding for transit operations and capital assistance and drafting the transit portion of the Transportation Improvement Program (TIP) and Unified Planning Work Program (UPWP).

Agencies and organizations represented on the TOC include:

- Beaver County Transit Authority
- Butler Transit Authority
- Freedom Transit
- Fayette Area Coordinated Transportation
- Indiana County Transit Authority
- Mid Mon Valley Transit Authority
- New Castle Area Transportation Authority
- Port Authority of Allegheny County
- Town & Country Transit
- Westmoreland County Transit Authority
- Airport Corridor Transportation Association
- Oakland Transportation Management Association
- Pittsburgh Downtown Partnership

https://actapgh.org/

http://otma-pgh.org/

http://downtownpittsburgh.com/

Beginning in February 2017, the TOC was consulted at its regularly scheduled meetings on a variety of issues related to the ATP including specific implemented and planned transit projects aimed at increasing bicycle and pedestrian access to transit facilities.


19.

LISTENING SESSIONS

To obtain feedback on possible ways SPC could support local communities on the development and implementation of bicycle and pedestrian plans, two active transportation-focused listening sessions were held – one in Indiana, PA (February 15, 2017) and another in the City of Pittsburgh (March 1, 2017). These listening sessions were attended by trail leaders, bicycle and pedestrian advocates, planning and public health practitioners and other active transportation stakeholders from within the region. In each session, the discussion primarily revolved around the expressed need by local governments and the communities under their jurisdiction for additional technical and funding resources to improve walking and biking conditions for both residents and visitors.

ONLINE SURVEYS

After conducting the stakeholder meetings and listening sessions, SPC launched the next phase of public participation as part of the *Regional Active Transportation Plan for Southwestern Pennsylvania.* Included in this outreach were two online surveys.

Safe Routes to School (SRTS)

As part of the Active Transportation Plan development process, planning staff conducted a region-wide survey to determine the level of participation and interest on the part of individual schools in Safe Routes to School (SRTS) and/or other school-supported activities that encourage bicycling and walking in local communities. The intent of the feedback received as a result of the survey was to assist SPC in its planning efforts and to raise awareness of funding programs that may be available to create, expand or improve walking and biking routes to school in Southwestern Pennsylvania.

With the Safe Routes to School survey, planning staff was interested in knowing the mode of travel used by students going to and from school (i.e. school bus, public bus, private vehicle, bicycle, and on foot). Staff also asked respondents to describe existing pedestrian infrastructure and the condition of that infrastructure in and around the community in which their school is located.

Across the ten counties that are included in the SPC region, there are 121 school districts and 656 individual schools.

A total of 95 responses were received with 84 surveys fully completed and 11 only partially complete. Based on the 95 returned surveys, 66 schools had no knowledge of a Safe Routes to School initiative. However, 89 respondents expressed an interest in learning more about possible funding opportunities and provided their contact information, so that SPC staff could reach out to them at a later time.

Objectives Ranking

In May 2017, planning staff developed and released an online Objectives Ranking Survey, the purpose of which was to obtain additional input from across the entire ten-county region relating to the Active Transportation Plan's four goals and their proposed objectives.

In total, 549 surveys were completed throughout the SPC region.

The rankings listed in the following table reflect the results of the exercise conducted at Stakeholder Meetings, along with responses from the Objectives Ranking online survey.

Strengthen Communities	Priority ranking
Improve the ability for people in traditionally under-served communities to travel to jobs, schools, and other places of interest safely and conveniently by walking, bicycling or using transit.	1
Support redevelopment/revitalization of traditional downtowns to create walkable neighborhoods and business districts.	2
Promote the integration of transportation and land use policies to create compact development patterns that support bicycling, walking and transit use.	3
Enhance travel and tourism by promoting the inclusion of safe and connected bicycle and pedestrian infrastructure within and between historic, cultural, scenic and recreational sites in the region.	4
Emphasize multimodal infrastructure improvements that provide greater access to community destinations.	5
Provide guidance and educational resources on transportation design elements to help create vibrant communities and streets that serve as welcoming public spaces.	6

Improve Transportation Safety and Security	Priority ranking
Emphasize infrastructure improvements that make people feel safe and comfortable when walking, bicycling or using transit in both urban and rural areas..	1
Reduce pedestrian related fatalities, injuries, and crash rates.	2
Reduce bicycle related fatalities, injuries, and crash rates.	3
Encourage innovation in the development of safe and comfortable networks for walking and bicycling in small towns and rural areas.	4
Encourage bicycle facilities that make bicycling safer and increase the level of comfort for all types of riders.	5

Enhance Multimodal Accessibility and Connectivity	Priority Ranking
Support regional collaboration on planning for active transportation corridors and encourage connectivity within and between local and regional networks, including multi-state networks.	1
Encourage bicycle and pedestrian infrastructure that improves access to transit.	2
Provide guidance and educational resources that increase the ability of municipalities to plan, design, fund, build, maintain and operate bicycle and pedestrian networks.	3

Improve Public Health and the Environment	Priority Ranking
Encourage infrastructure improvements that increase bicycle and pedestrian access to parks, trails, open spaces and recreational facilities to increase opportunities for physical activity and promote improvements in public health outcomes in the region.	1
Emphasize infrastructure improvements that encourage walking and bicycling for short trips and lead to a reduction in Vehicle Miles Traveled (VMT) and improved air quality.	2
Support local communities in establishing new Safe Routes to School programs and in sustaining and enhancing existing efforts.	3
Mitigate transportation-related stormwater impacts by encouraging installation of green infrastructure to help reduce stormwater runoff (i.e. rain gardens, street trees, landscape areas, permeable pavement).	4
Encourage collaboration between public health and transportation agencies and planners.	5

As shown in the next section of this plan, *The Regional Vision and Active Transportation*, the ranking of the originally proposed objectives resulted in a refined set of plan objectives associated with the individual active transportation goals.

Most Important — Support regional collaboration on planning for active transportation corridors and encourage connectivity within and between local and regional networks, including multistate networks.

2nd — Emphasize infrastructure improvements that make people feel safe and comfortable when walking, bicycling or using transit in both urban and rural areas.

3rd — Encourage infrastructure improvements that increase bicycle and pedestrian access to trails, open spaces and recreational facilities to increase opportunities for physical activity and promote improvements in public health outcomes.

SECTION 3
The Regional Vision and Active Transportation

ACTIVE TRANSPORTATION PLAN GOALS AND OBJECTIVES

The region's current long range plan, *Mapping the Future: The Southwestern PA Plan*, establishes the regional vision of "Transportation and land use that supports and enhances the regional economy and the communities within it." Having a safe and complete multimodal transportation network that supports active transportation for users of all ages and abilities is an important component of that vision. The long range plan establishes three policy goals that have direct links to active transportation planning.

Policy Goals

- Revitalization and redevelopment of existing communities is a priority.
- Transportation and development choices will prioritize safe and secure multimodal and intermodal networks for people and goods.
- The region's infrastructure system will be designed to protect and enhance public health and the environment.

Active Transportation Plan Goals

To achieve these policy goals, four broad active transportation goals have been established:

- Strengthen communities.
- Improve transportation safety and security.
- Enhance multimodal accessibility and connectivity.
- Protect and enhance public health and the environment.

Investment for System Safety, Efficiency and Reliability

"The region seeks to invest in projects that make the entire transportation system safer for motorists, safer for pedestrians, safer for cyclists and safer for transit users.

The region also wishes to operate an efficient and reliable system – one where a person can reach a destination in a reasonable and predictable amount of time. A consistently reliable system is important for goods and service delivery as well as quality of life for travelers.

Safety and system reliability go hand-in-hand since crashes are a leading cause of non-recurring congestion, and because traffic congestion leads to higher crash rates."

– Mapping the Future, June 2015

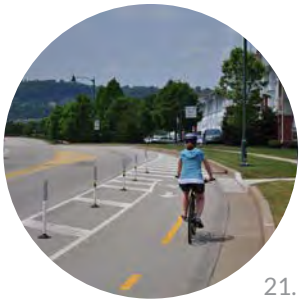
Active Transportation Plan Objectives

More specific objectives within each of these areas help to target active transportation strategies. These objectives have been developed in collaboration with a broad range of regional partners. While regional in nature, they may also be used by local governments to develop the foundation or enhance existing efforts to further active transportation in Southwestern Pennsylvania.

20.

Strengthen communities

- Promote the integration of transportation and land use policies to create appropriate development patterns that support accessibility and mobility.
- Support redevelopment/ revitalization of traditional communities to create walkable neighborhoods and business districts.
- Provide guidance and educational resources to help create vibrant communities and streets that serve as welcoming public spaces.
- Improve the ability and options for people in traditionally under-served communities to travel safely and conveniently.
- Enhance travel and tourism by promoting safe and connected multimodal networks.



21.

Improve transportation safety and security

- Reduce bicycle and pedestrian related fatalities and injuries, supporting the Toward Zero Deaths Vision.
- Emphasize and promote innovative improvements that create safe and comfortable multimodal transportation networks for all users.

22.

Enhance multimodal accessibility and connectivity

- Provide guidance and resources that increase the ability of local governments to plan, implement and maintain an integrated transportation network.
- Support regional collaboration on planning for active transportation corridors and encourage connectivity with and between local and regional networks, including multi-state networks.
- Improve the transportation network to allow for increased mode choices.
- Improve first and last mile connections to transit.

23.

Improve public health and enhance the environment

- Encourage collaboration between education, public health and transportation agencies in promoting active transportation.
- Encourage infrastructure improvements that increase access to open spaces and recreational facilities.
- Promote strategies that increase air quality and incorporate sound environmental mitigation principles.
- Reduce motor vehicle trips.

PERFORMANCE MEASURES

Using a performance management approach that includes measures to characterize bicycle and pedestrian investments, activity and impacts can help achieve connected intermodal networks, improve safety, promote equity and encourage people of all ages and abilities to walk and bike for transportation. The *Regional Active Transportation Plan for Southwestern Pennsylvania* integrates performance measures and indicators that can be used as benchmarking tools to assess current conditions for bicycling and walking in the region and track changes over time. The following chart identifies quantifiable performance metrics or indicators that may be considered for each established objective. While the performance measures identified below are assigned to the plan goal which they are most directly related, it is important to note that measures often relate to multiple goals and objectives.

Performance Measures

Metrics/Indicators	Description	Purpose	Goal
Number of non-motorized fatalities and non-motorized serious injuries.	The number of and severity of non-motorized crashes over a specified time.	Track progress toward meeting safety goals.	Improve transportation safety and security.
Commute Mode Share.	The proportion of total commute trips by transportation mode. Note: A key limitation of this measure is its lack of data during non-commuting periods, which excludes most non-motorized recreational trips and trips taken for non-work related reasons.	Track changes in mode split over time; track reduction of motorized vehicle trips.	Enhance multimodal accessibility and connectivity.
Proximity to parks and trails.	Proportion of residences within a 15-minute drive to a regional park or trail access point.	Assess the regional distribution of walking and biking potential, opportunity and equity.	Improve public health and enhance the environment.
Miles of bicycle facilities.	The total distance, expressed in miles, of inventoried bicycle facilities in the SPC region. Measure will be separated into specific types such as miles of bike lanes, miles of separated bike lanes, miles of bike routes and miles of trails.	Monitor progress in developing bicycle infrastructure in the region.	Improve transportation safety and security.
Federal and state dollars spent on active transportation infrastructure.	Federal and state dollars spent on bicycle and pedestrian infrastructure projects in absolute terms. Current funding programs that will be tracked include SPC's CMAQ, SMART and TA-Set Aside programs; DCED and PennDOT MTF programs; DCNR's C2P2 program; and the CFA's GTRP. (See funding program acronyms on page 26.)	Track transportation investments in bicycle and pedestrian infrastructure projects.	Enhance multimodal accessibility and connectivity.
Number of jurisdictions with adopted bicycle and pedestrian plans or active transportation plans.	The number of jurisdictions with an adopted bicycle and/or pedestrian plan or an active transportation plan.	Track progress toward planning for improved bicycling and walking facilities at the local level.	Strengthen communities.

Tracking Federal and State Dollars Spent on Active Transportation Infrastructure

Funding Program Acronyms

C2P2
Department of Conservation and Natural Resources (DCNR)
Community Conservation Partnerships Program

CMAQ
Southwestern Pennsylvania Commission (SPC)
Congestion Mitigation Air Quality Improvement Program

GTRP
Commonwealth Financing Authority (CFA)
Greenways, Trails and Recreation Program

MTF
Department of Community and Economic Development (DCED)
Multimodal Transportation Fund

MTF
Pennsylvania Department of Transportation (PennDOT)
Multimodal Transportation Fund

SMART
Southwestern Pennsylvania Commission (SPC)
Livability Through Smart Transportation Program (SMART)

TA Set-Aside
Southwestern Pennsylvania Commission (SPC)
Transportation Alternatives Set-Aside

SECTION 4
Existing Conditions Assessment

INTRODUCTION

This section of the plan briefly summarizes the active transportation systems predominantly addressed by the plan while also reviewing activity in the region concerning trail connectivity at the community, local, regional, and multi-regional levels. Detailed descriptions of existing transportation facilities and activities taking place in Southwestern Pennsylvania can be found in the Active Transportation Profiles for each of the 10 SPC counties and the City of Pittsburgh. The profiles are discussed in the next section of this plan.


24.


25.


26.

ACTIVE TRANSPORTATION PROFILES

In order to get a comprehensive understanding of the region's active transportation network as it stands currently, SPC planning staff solicited input from county planners from each member county and the City of Pittsburgh to learn more about existing conditions and local trends in biking and walking, and what policies and programs are in place to support growth in bicycle and pedestrian travel. Results of this process informed plan development, and a summary of findings are presented in snapshot reports or "active transportation profiles" for each county and the city. The reports, which can be viewed by clicking on the map below, include facility metrics and benchmarking indicators that will be reviewed and updated by SPC planning staff on an annual basis to track changes over time. The reports are also available on SPC's website.

https://www.atrc-spc.org/regional-active-transportation-plan--profiles.html

Snapshot Categories

River Towns

Bicycle Friendly Communities

Complete Streets Policies

Trail Towns

Walk Friendly Communities

WalkWorks Program

THE REGION'S ACTIVE TRANSPORTATION: BY THE NUMBERS

This page presents a regional summary of facility metrics and the number of programs and policies that are in place to support and encourage active transportation, based on information contained in the Active Transportation Profiles (2017) for each county and the City of Pittsburgh. "Miles of Routes" are based on centerline miles.

Miles of Routes

Miles of Local Bike Routes

250

Miles of PA Bike Routes

326

Miles of US Bike Route 50

122

Miles of Protected Bike Lanes

3

Miles of Bike Lanes

38

Miles of Shared Use Markings

50

Miles of Trail

870

Miles of Designated PA Water Trail

485

Programs and Policies

Bicycle Friendly Communities

1

Complete Streets Policies

4

Trail Towns

12

North Country Trail Towns

3

River Towns

14

Walk Friendly Communities

2

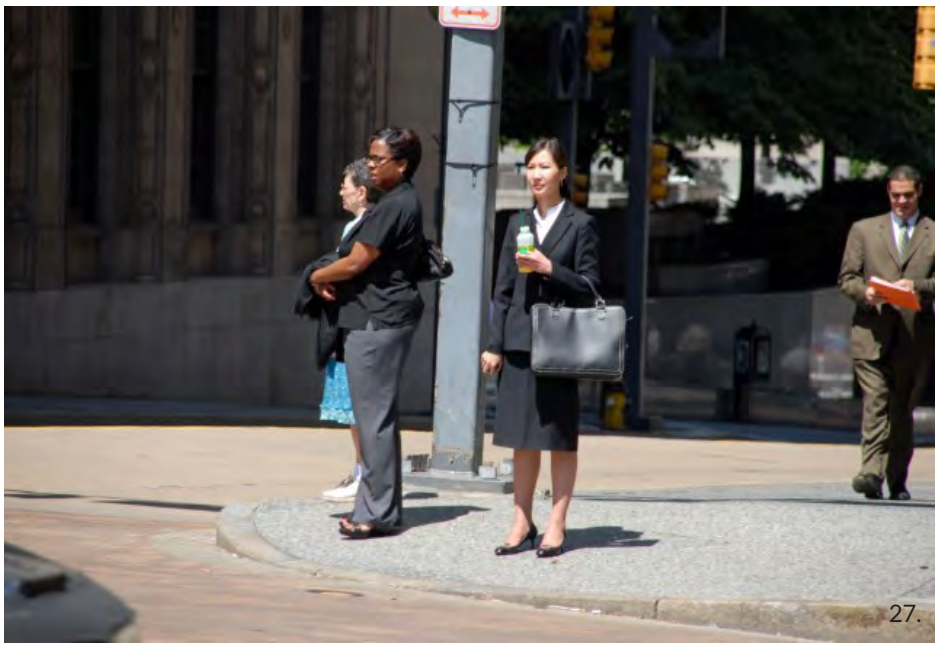
WalkWorks Programs

12

REGIONAL ACTIVE TRANSPORTATION NETWORK

Existing System

Southwestern Pennsylvania has an extensive network of bicycle and pedestrian facilities, including sidewalks, crosswalks, trails, designated bike routes, navigable waterways and designated PA Water Trails for non-motorized watercraft.



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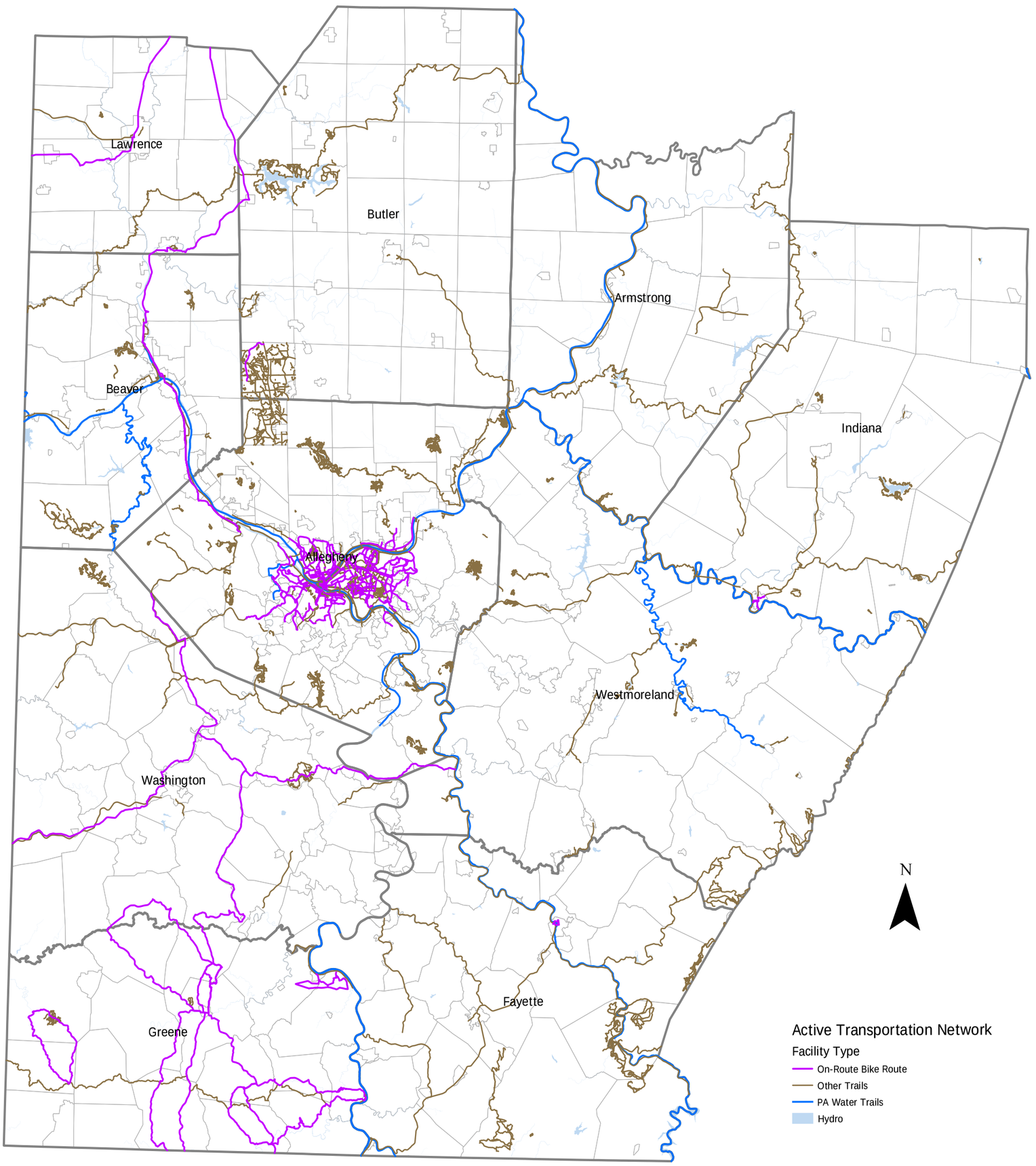
Active Transportation Network



Source: SPC

TRAIL SYSTEM

Trail Functional Classifications

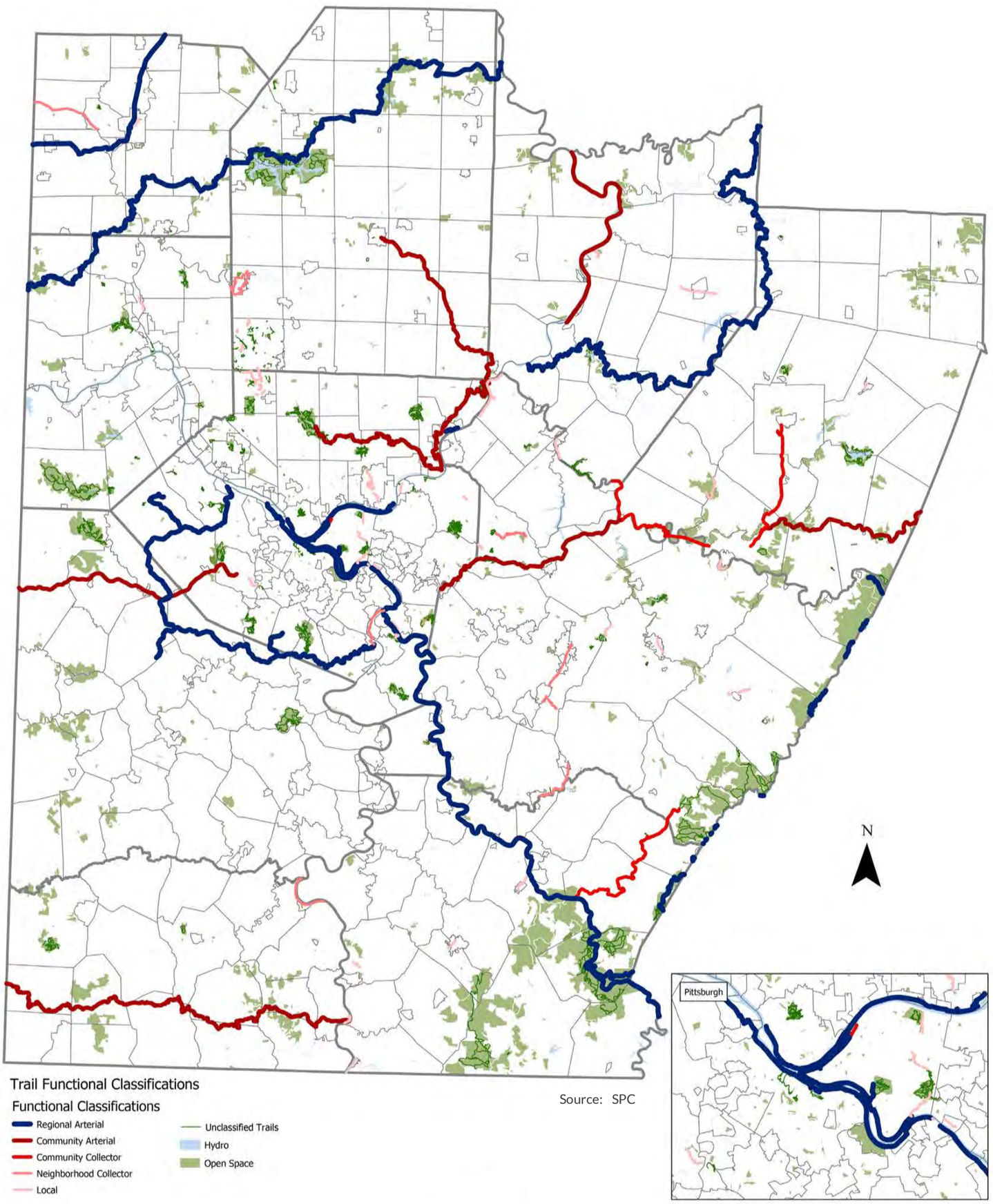
Functional classifications define the role that a particular roadway segment plays in moving automobile and truck traffic through the network. Planning staff assigned similar functional classifications to trails in the region's active transportation network to help define the role each element of the trail network plays in serving active transportation. The functional classification of trails also provides a framework for identifying opportunities to improve network connectivity that supports the Active Transportation Plan Goals as defined in Section 3, as well as the Policy Goals found in the region's long range transportation plan.

Regional arterials are the highest functional classification for trails. They form the spine of the regional active transportation network. They also may provide connections to key destinations and routes outside of the region. They are connected to and by trails that are classified as community arterials.

Community arterials generally experience less demand than long-distance regional arterials; however, they provide connectivity in the regional network and give people the option of safely walking or bicycling to local destinations or nearby communities.

Community collectors, **neighborhood collectors** and **local trails** are very important to a fully functioning network. They facilitate short recreational or utilitarian trips within communities and are primarily used by people who live in close proximity to these trails. As projects are completed and trails are built and/or extended, changes to the functional classification map will be required. Changes will be made during each Active Transportation Profile update.

Trail Functional Classifications



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Existing Trails

Overview

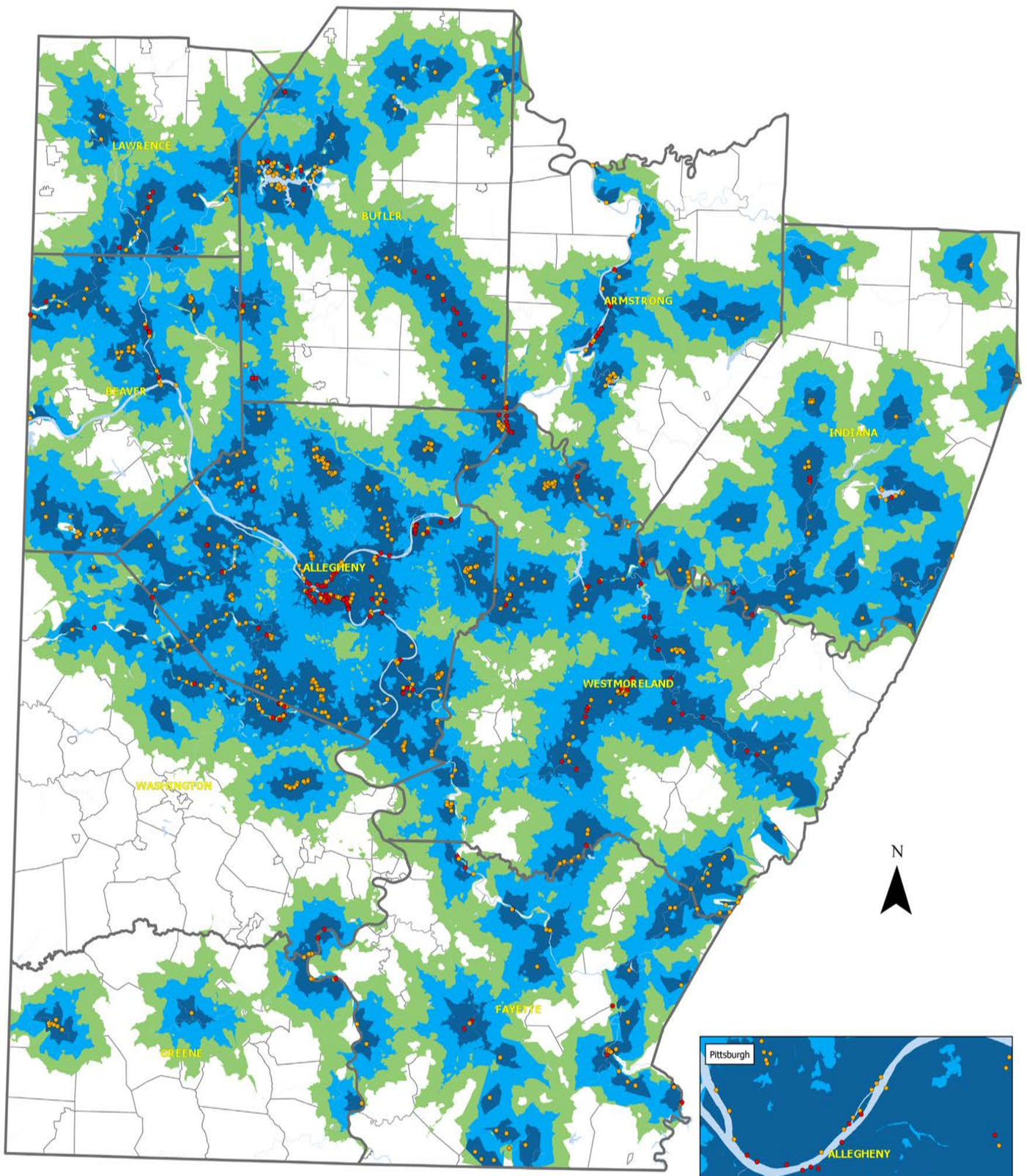
Trails are an important part of the region's active transportation network. They offer unique travel experiences and provide safe, comfortable opportunities for active travel to and from local and regional destinations. Benefits that trails can provide to communities include health and wellness, economic development opportunities, increased travel options, and even an improved sense of community.

Linear trails located within the region are identified in each of the Active Transportation Profiles, along with the local government and/or trail organizations that own, develop and maintain each of these trails. These trails include rail-trails or other separated paths, as well as on-road segments of long distance trails (e.g. North Country Trail). Loop trails located within regional parks and recreation areas are portrayed on map images in the Profiles and the total miles of trail in these areas are identified.

Drive Times to Trail Access

Regional Drive Times to Trail Access

Having access to trails encourages people to walk and bike for recreation and utilitarian purposes, and to do so more often. SPC planning staff mapped trail access by selecting Census block groups that fall within five, ten and fifteen-minute drive sheds for trail access points and parking areas for all inventoried land trails in Southwestern Pennsylvania. As depicted, 97.3% of the region's population is within a 15-minute drive of trail access, with over 91.2% of those residents being within a 10-minute drive and 68.8% within a 5-minute drive of a trail.



Source: `SPC

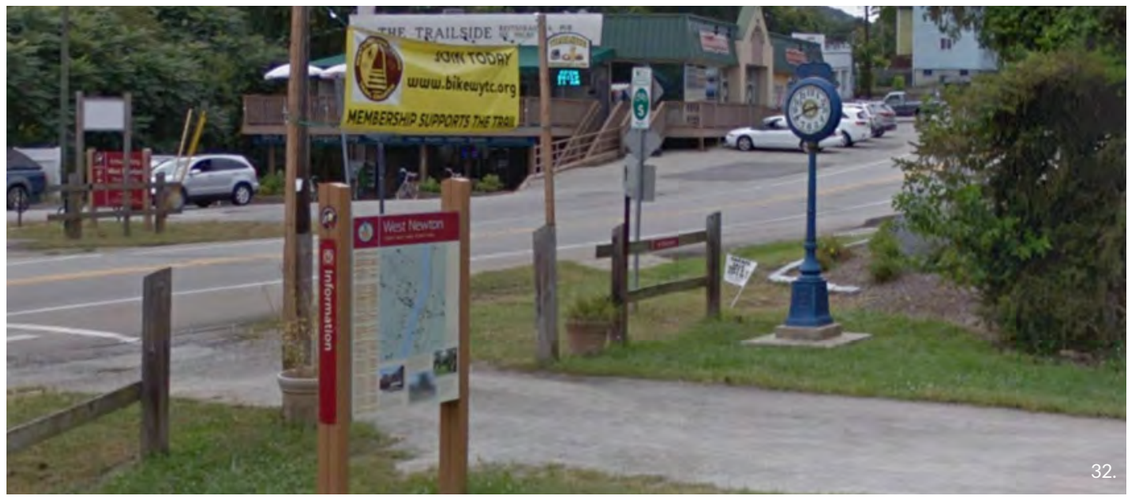
Trail Towns

Trails positively impact individuals and communities by providing recreation and transportation opportunities, and also influencing economic and community development. Communities along trails benefit from the influx of visitors going to restaurants, snack shops and other retail establishments. On longer trails, hotels, bed and breakfasts, and outdoor outfitters also benefit.

The Progress Fund, a non-profit community development financial institution, created the Trail Town Program® to help towns situated along trails encourage revitalization and community development by providing amenities that trail users want and need. Within the SPC region, the Trail Town Program includes these trail corridors: the developing Erie to Pittsburgh Trail; Great Allegheny Passage; Montour Trail; Sheepskin Rail-Trail; and, trails located within the Trans Allegheny Trails network. Trans Allegheny Trails in the SPC region include: Apollo's Kiski Riverfront Trail, Roaring Run Trail (Armstrong); Blairsville Riverfront Trail, Ghost Town Trail, Hoodlebug Trail (Indiana); West Penn Trail and the Westmoreland Heritage Trail (Indiana, Westmoreland).

Trail Towns along these corridors include Pittsburgh, Homestead and West Homestead, McKeesport and Boston (Allegheny); Foxburg (Armstrong); Connellsville, Ohiopyle, Dunbar and Point Marion (Fayette); Saltsburg (Indiana) and West Newton (Westmoreland).

Long-distance hiking trails that traverse the region include the North Country Trail, the Baker Trail and the Warrior Trail. The North Country Trail is a walking route that runs from North Dakota to Vermont, including Pennsylvania portions of on- and off-road trails in Beaver, Lawrence, Butler and Armstrong counties. The North Country Trail Association encourages communities to plan for and capitalize on the social and economic benefits of the trail, and recognizes towns that support hikers with services. Towns along this corridor include Darlington (Beaver), Parker (Armstrong) and Wampum (Lawrence).



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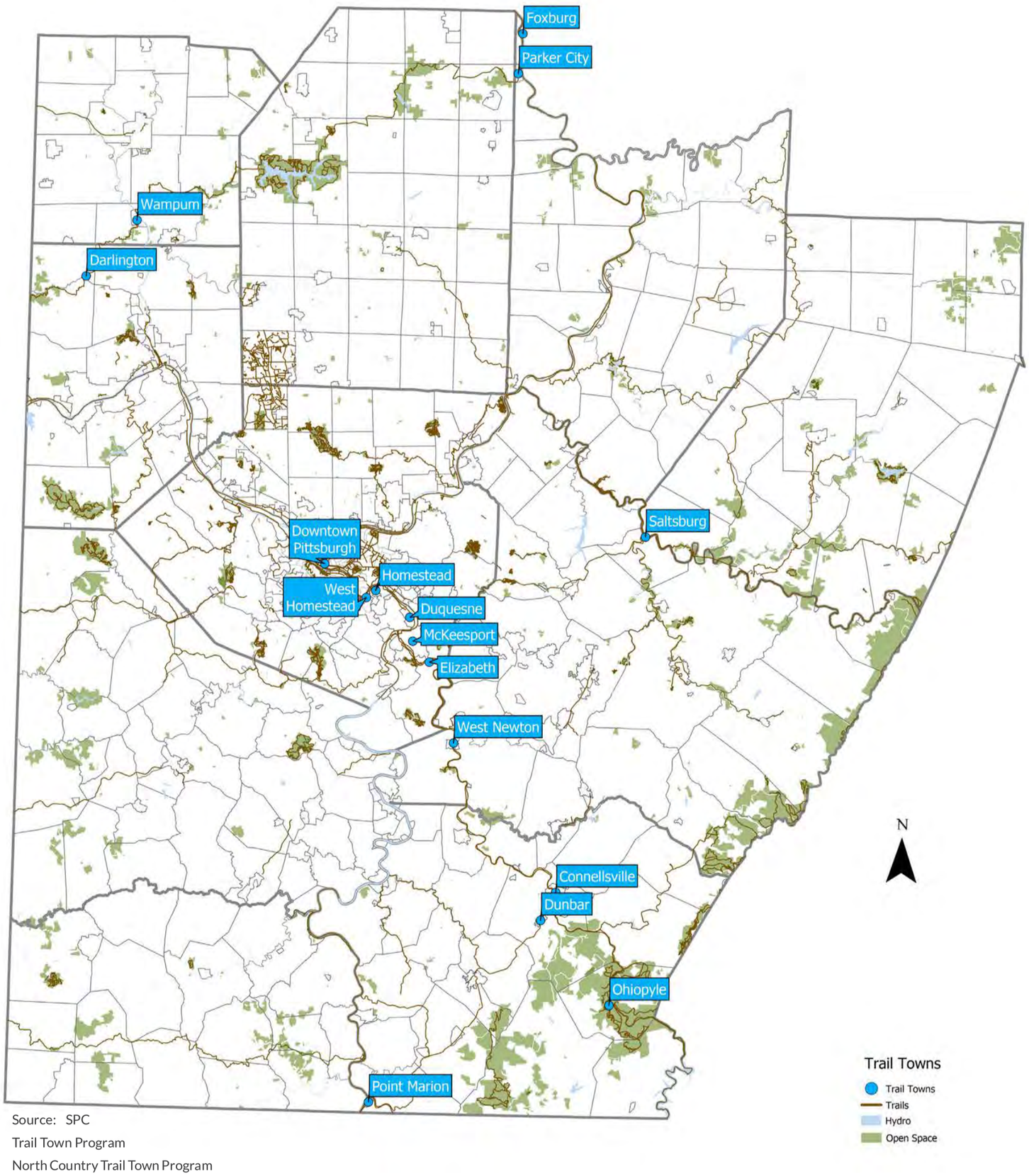
Trail Towns



Source: SPC

Trail Town Program

North Country Trail Town Program

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35.

Economic Impact of Trails

The region's premier trail corridor is the Great Allegheny Passage, a 150-mile system of biking and walking trails connecting Pittsburgh with the 184.5-mile C&O Canal Towpath at Cumberland, MD, creating a continuous non-motorized 334.5-mile corridor between Pittsburgh and Washington, DC.

In 2014, the Trail Town Program® conducted a trail user and business survey along the Great Allegheny Passage. Survey results show that this trail is visited by almost one million users every year, generating economic impact along the way. Roughly 62% of trail users were planning an overnight stay with an overnight spending average of $124.58. The average day user spends roughly $18.

Businesses reported an overall increase in trail user traffic from 34% in 2013 to 41% in 2014. Their reported international traffic was 6%, up 1% from the previous year.

40% of the businesses planned to expand and of those reported to expand, 67% attributed their expansion to the impact from the trail.

The majority of these businesses were lodging, eatery, and retail establishments. (Source: *Trail User Survey and Business Survey Report, Great Allegheny Passage*, 2015)

While the economic impact of trails and trail tourism is often apparent in trailside businesses, trails also play a role in attracting employers and new residents who may want to move to a particular community because of amenities like trails. Trail-based economic development, also known as "Trail-Oriented Development," capitalizes on trails as community amenities and leverages the development potential adjacent to trails. In the Southwestern Pennsylvania region, a residential project in Cecil (Washington) and a mixed-use development in South Park (Allegheny) are being planned along the Montour Trail.

36.

Multi-State Trail Coalitions

The success of the Great Allegheny Passage as a transportation and recreation corridor and engine for community and economic development continues to spur activity in establishing additional long-distance trail connections.

The following are some examples of coalitions working to create multi-state trail networks that include portions of Southwestern Pennsylvania:

Erie-to-Pittsburgh Trail Alliance

The Erie-to-Pittsburgh Trail Alliance is coordinating the development of the Erie to Pittsburgh Trail. The developing route starts at the Perry Monument on Presque Isle on Lake Erie then follows roads through Erie into western New York and works its way south to Oil Creek, PA. It follows Oil Creek to the Allegheny River and then continues along the river to downtown Pittsburgh. The primary goal of the Alliance is to establish a continuous 264-mile trail from the Erie Bayfront to Point State Park in downtown Pittsburgh. The Alliance plans to utilize existing trails where possible, and identify uncompleted segments and take the next steps to complete the route.

Industrial Heartland Trails Coalition

Organizations and stakeholders in Pennsylvania, New York, Ohio and West Virginia are striving to connect trails in a network stretching from Lake Erie to Pittsburgh to the Appalachian foothills of West Virginia. The goal is to create a 1,500-mile trail system from Lake Erie to West Virginia. Pittsburgh will serve as the network hub, with trails radiating out of the metro area and connecting to Cleveland, Akron and Ashtabula in Ohio, Morgantown and Parkersburg in West Virginia, and Erie in Pennsylvania.

The Ohio River Greenway Trail Council

This proposed Ohio River Greenway Trail, spearheaded by the Ohio River Trail Council, focuses on interconnecting existing trails in four states – Ohio, Pennsylvania, Maryland and West Virginia. The goals are to: create a 41-mile walking and biking route from Pittsburgh to the western border of Pennsylvania with Ohio and West Virginia; connect 30 riverfront communities; and unite the Great Ohio Lake-to-River Greenway to the Great Allegheny Passage and continue on the C&O Canal Towpath, forming a mega trail.

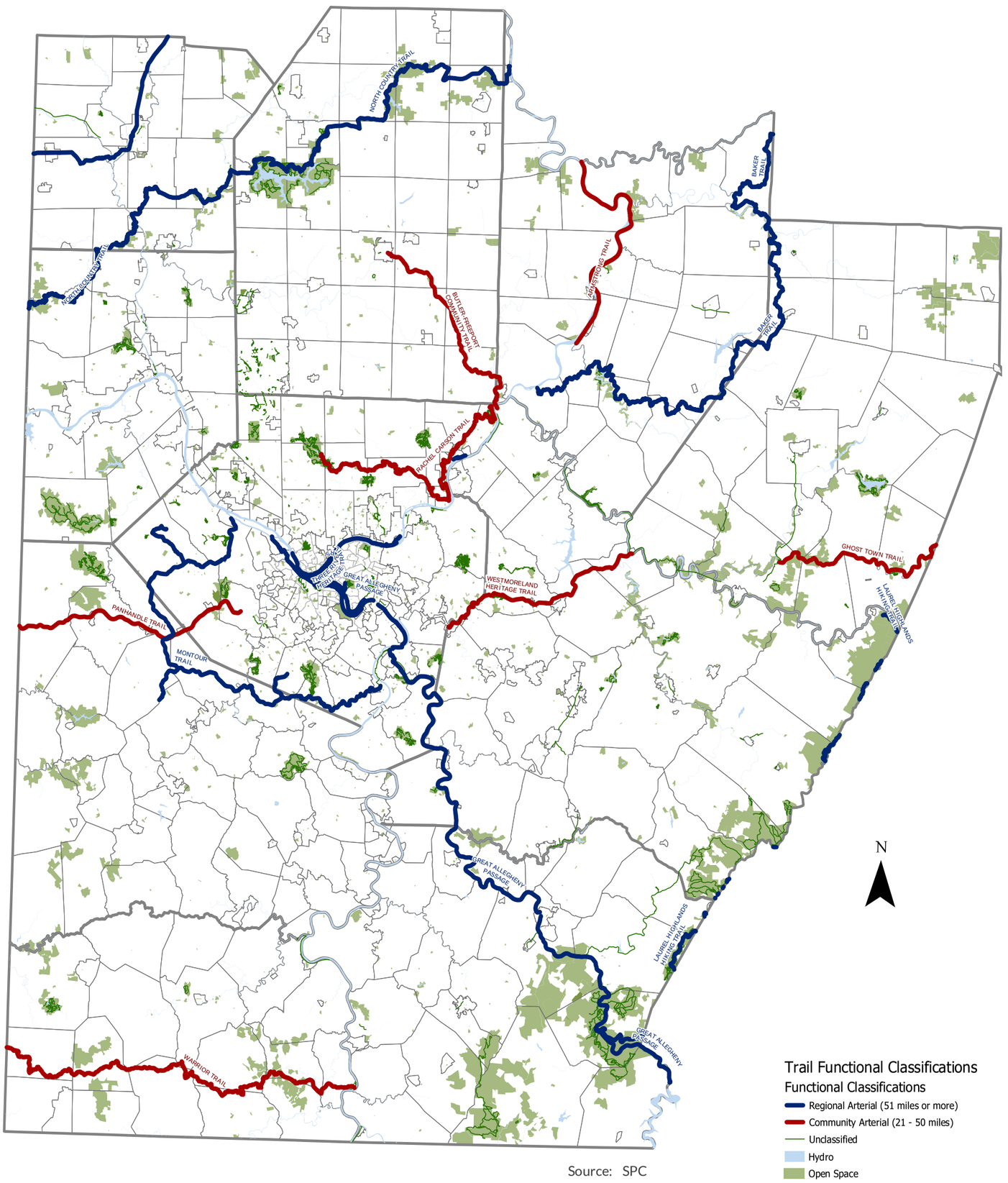
Regional Trail Network

The regional trail network includes regional and community arterial trails, as portrayed in the following map. As build-out of the trail system continues, an interconnected region-wide network is gradually being realized. Federally funded trail projects that were in the planning or design phase or under construction at the end of 2017 are identified in the Active Transportation Profiles. Many of these projects involve extending community arterial trails to create linkages to long-distance trail systems.

37.


38.

Regional and Community Arterial Trails



Source: SPC

CURRENT CONDITIONS FOR BICYCLING AND WALKING

Who is Walking and Bicycling?

According to the 2017 National Household Travel Survey, 45 percent of daily person trips (using any mode of travel) are taken for shopping and errands; 27 percent of daily trips are social and recreational, such as visiting a friend; and 15 percent of daily trips are taken for commuting. The percent of person trips by mode shows that 1% of these trips were made using a bicycle and 10.5% were made by walking.

Commute mode share describes the percentage of workers who travel to work by various modes, including active transportation modes. The following chart, which is included in the Active Transportation Profiles, indicates the percentage of commute trips made on bike, on foot or by transit for the ten counties in the region.

SPC 10-County Region	2011-2015	2012-2016
Public Transportation	5.2%	5.3%
Bicycle	0.3%	0.4%
Walked	3.6%	3.6%

Source: US Census Bureau, American Community Survey Five-Year Estimates

Bicycle and Pedestrian Crash Data

Statewide, pedestrian-related crashes represent 3.2% of the total reported traffic crashes; however, they account for 14.5% of all traffic crash fatalities. Bicycle crashes represent 1.0% of the total reported crashes and 1.3% of all traffic fatalities. Although these percentages are small, they still represent 16 bicyclist fatalities and 1,298 injuries in 2016 (Source: *2016 Pennsylvania Crash Facts and Statistics*).

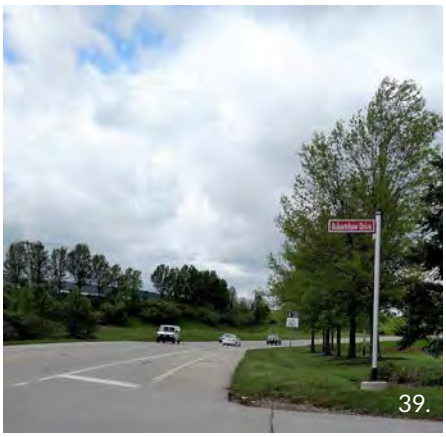
Creating safe, convenient and comfortable walking and bicycling networks can help reduce bicycle and pedestrian injuries and deaths.

In addition to improving safety and increasing mobility options, walking and bicycling provide health, economic development and environmental benefits. Growing recognition of these benefits has generated increased interest in and demands for better walking and bicycling conditions from a wide range of stakeholders, including residents, public health practitioners and bicycle and pedestrian advocacy groups. As a result, support for walking and bicycling is increasing and is likely to continue to increase in the future.

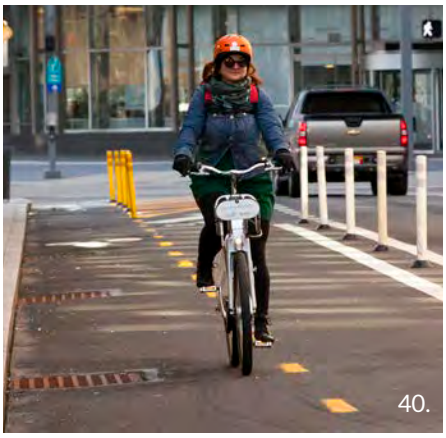
BICYCLE SYSTEM

Bicycle Facilities

Communities big and small are investing in bicycling infrastructure throughout the region. The City of Pittsburgh is building conventional and physically separated bike lanes and installing intersection treatments for bicyclists in several locations in and around the city. Many other cities and small towns throughout the region are also working to improve conditions for people who bike. In places where narrow rights-of-way restrict implementation of bike lanes, wide shoulders or wider outside travel lanes are also used. These are often supplemented by shared road markings or "sharrows" in many communities.


39.

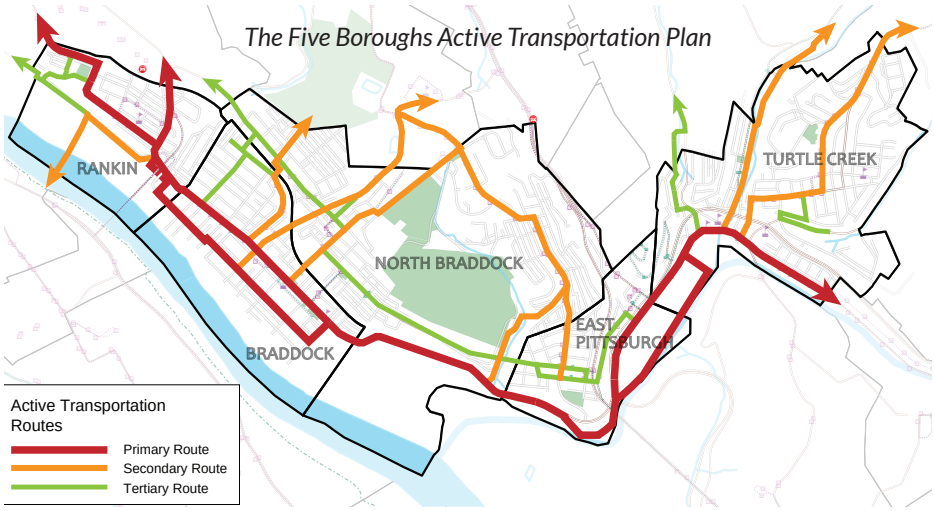
The number of centerline miles of each bicycle facility type present in the region is included in the County Active Transportation Profiles. The number of bicycle support facilities, such as public bike parking and bike repair stations is also included, but these numbers only reflect data that has been collected by planning staff, beginning in 2017. The Profiles also highlight local bike counts that were collected by trail organizations or local governments, or as part of SPC's Pilot Non-motorized Data Collection Program, which was launched in 2016.


40.

SPC planning staff has created and maintains an inventory of existing bicycle infrastructure and trails throughout the region.

Bicycle-specific infrastructure and support facilities included in this inventory are:

1. *Shared roads*
2. *On-road bike routes*
3. *Bike lanes*
4. *Separated bike lanes*
5. *Public bike parking racks*
6. *Public bike repair stations*
7. *Bike share stations in the City of Pittsburgh*

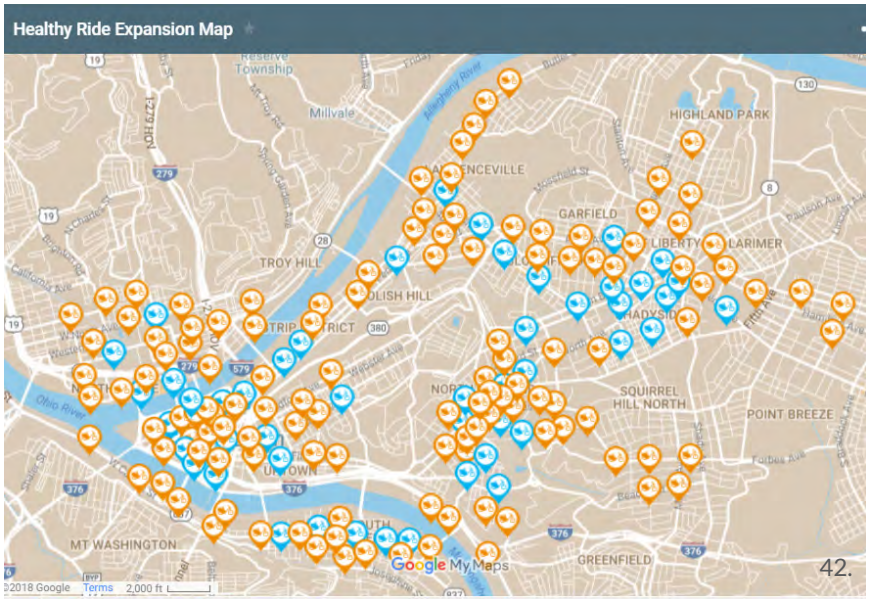


Active Transportation Studies (like above) can help communities identify important bike routes.

Bike Share

Bike share systems encourage active transportation by providing people the ability to pick up a bicycle at any self-serve bike station and return it to any other bike station in the system's service area. Bike sharing facilitates connections to and from public transit and provides a means to make local trips by bike.

41.



42.

Pittsburgh's Healthy Ride

1. Launched by Pittsburgh Bike Share in spring 2015.
2. Started with 500 bicycles in 50 locations in Pittsburgh.
3. This public-private partnership was assisted with $1.6 million from SPC's regional Transportation Improvement Program, and includes support from Highmark and the Allegheny Health Network.
4. Healthy Ride transitioned to a dockless system in 2017 and is expanding to 175 stations with 700 bikes in 2018. "Dockless" means that bicycles can be parked within a defined district at a bike rack or along the sidewalk.
5. Healthy Ride recently partnered with the Port Authority of Allegheny County to provide ConnectCard users with unlimited 15-minute rides to increase transportation options for transit users traveling in the Healthy Ride service area.

PEDESTRIAN SYSTEM

Southwestern Pennsylvania has an extensive network of pedestrian facilities including sidewalks, curb ramps, crosswalks and multi-use trails, as well as over 700 sets of public steps in the City of Pittsburgh. However, barriers to safe pedestrian travel exist throughout the region. Barriers include wide roads designed for high motor vehicle speeds and/or volumes; intersections with wide crossing distances, wide turning radii or multiple turn lanes; lack of nighttime roadway and/or sidewalk lighting; faded or missing crosswalks; pedestrian crossing signals that do not provide enough time for crossing the entire street; sidewalks and crossings that do not accommodate people with disabilities; and lack of or inadequate sidewalk infrastructure and crossings along rural roads. Many areas in the region also lack safe pedestrian connections to public transit.


43.

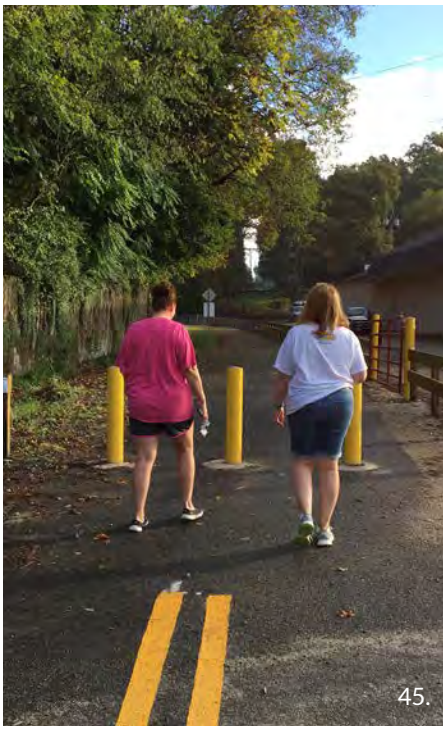
Basic pedestrian facilities include the following components:

- Walkways, which may be sidewalks, paths, multi-use trails, pedestrian bridges, or public steps.
- Crosswalks and crossing treatments, such as pedestrian refuge islands, bulb-outs, pedestrian countdown signals and curb ramps with features for people that are visually or hearing-impaired.
- Streetscape amenities, such as pedestrian-scaled lighting, benches, directional signage and street trees.
- Safe connections to public transit amenities and stations.


44.

A metric for “miles of inventoried sidewalks” in the region is included in the County Active Transportation Profiles. Inventory data was provided by a limited number of municipalities. However, planning staff recognizes that sidewalks are typically present in built-up areas in traditional downtowns and cities with a higher density of attractions, destinations and people. Sidewalks are not as prevalent in surrounding low density, suburban communities and corridors. Opportunities for creating connections are frequently found in locations between these two environments, as well as in rural areas of the region.

Local zoning and subdivision and land development ordinances that have been adopted by member-counties are also identified in the County Active Transportation Profiles. These ordinances specify allowable uses of land within a community to help guide new development and protect community resources. The ordinances may specify requirements for structural improvements, such as adding or maintaining sidewalks.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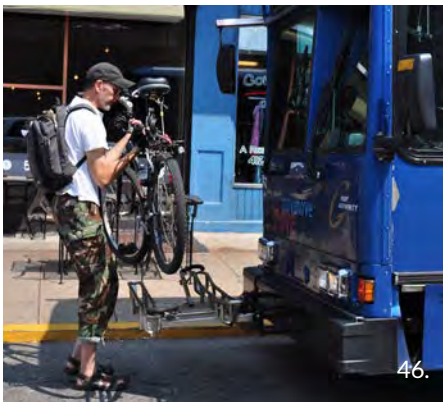

46.

TRANSIT

Public transportation plays an important role in active transportation, because every public transportation trip is a multimodal trip. Most people who use public transportation walk to or from stops and stations or make other trips on foot during the course of their day. An overview of transit providers and their service routes, as well as the number of transit vehicles that have bicycle accommodations are included in the County Active Transportation Profiles.

WATER TRAILS

Active transportation commonly focuses on bicycling and walking, but kayaking and canoeing are also considered forms of active transportation. Water trail networks can help facilitate recreation, transportation and healthy lifestyles.

SPC planning staff maintains an inventory of all navigable waterways in the region and identifies waterways designated as PA Water Trails. The PA Water Trails Program seeks to increase the number of water trails in the Commonwealth while also helping water trail managers better manage their water trails. The Pennsylvania Water Trails program is managed by Pennsylvania Environmental Council and funded by DCNR, with ongoing partnership from Pennsylvania Fish and Boat Commission and the National Park Service.

47.

Navigable waterways that are not designated PA Water Trails also offer significant paddling opportunities and contribute to the health of a community. Paddling trails are signed recreational waterways containing access points and day-use and/or camping sites for the boating public.

Designated PA Water Trails in SPC's region include: Three Rivers Water Trail; Ohio River Water Trail (including the Beaver River and Little Beaver Creek); Kiski-Conemaugh River Water Trail; Loyalhanna Creek Water Trail; Upper Mon River Water Trail; and Middle Allegheny River Water Trail.

Designated paddling trails within the SPC region include: Middle Allegheny River, Mahoning, Redbank, Crooked Creek, Buffalo and Cowanshannock creeks (Armstrong); Connoquenessing Creek (Beaver, Butler); Ten Mile Creek, Dunkard Creek and Whiteley Creek (Greene County); Two Lick Creek (Indiana); Beaver River, Shenango River, Connoquenessing Creek, Neshannock Creek and Slippery Rock Creek (Lawrence); and Ten Mile Creek (Washington, Greene).

River Towns

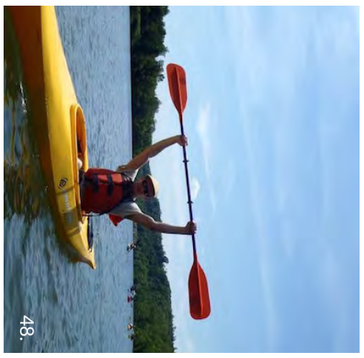
The River Town Program helps communities recognize rivers as assets around which civic and economic development can occur, and raises awareness of rivers as resources worth protecting. The Pennsylvania Environmental Council (PEC) has initiated river town programs throughout the state, including along the Allegheny and Monongahela Rivers.

Allegheny River Towns include six communities north of Pittsburgh:

- Blawnox
- O'Hara
- Etna
- Millvale
- Aspinwall
- Sharpsburg

Monongahela River Towns include:

- Point Marion
- Greensboro
- Rices Landing
- Fredericktown
- California
- Brownsville
- Monongahela
- Charleroi



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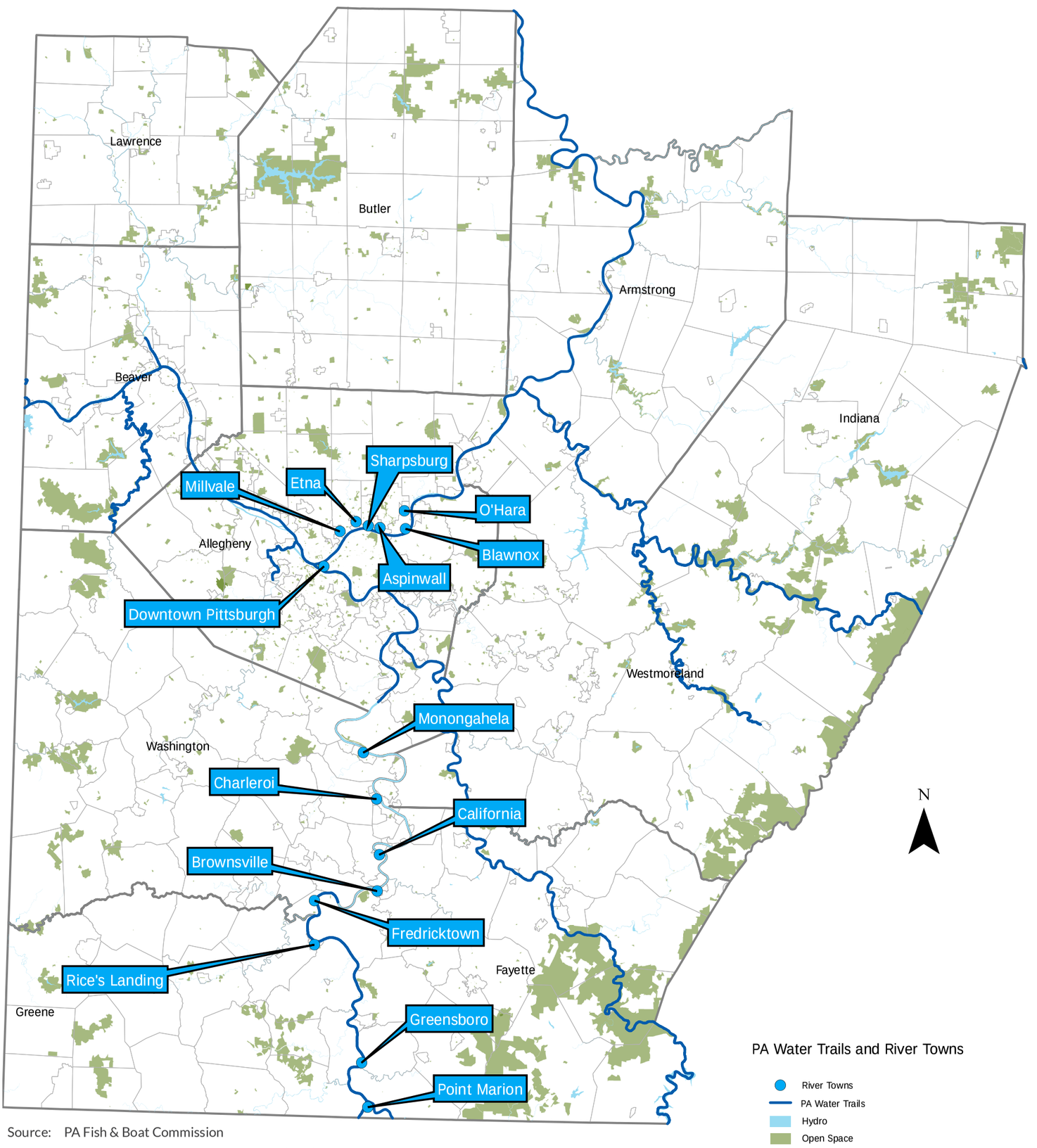
PA Water Trails and River Towns



Source: PA Fish & Boat Commission
Pennsylvania Environmental Council (PEC) River Town Program

SECTION 5
Toward the Vision

The *Regional Active Transportation Plan for Southwestern Pennsylvania* identifies guiding principles and recommends nationally recognized policies, programs and initiatives as a regional strategy to advance active transportation at the local level. The strategies are meant to serve as options for local governments, recognizing that the capacity of staff and the need for bicycle and pedestrian initiatives and actions vary across the region.

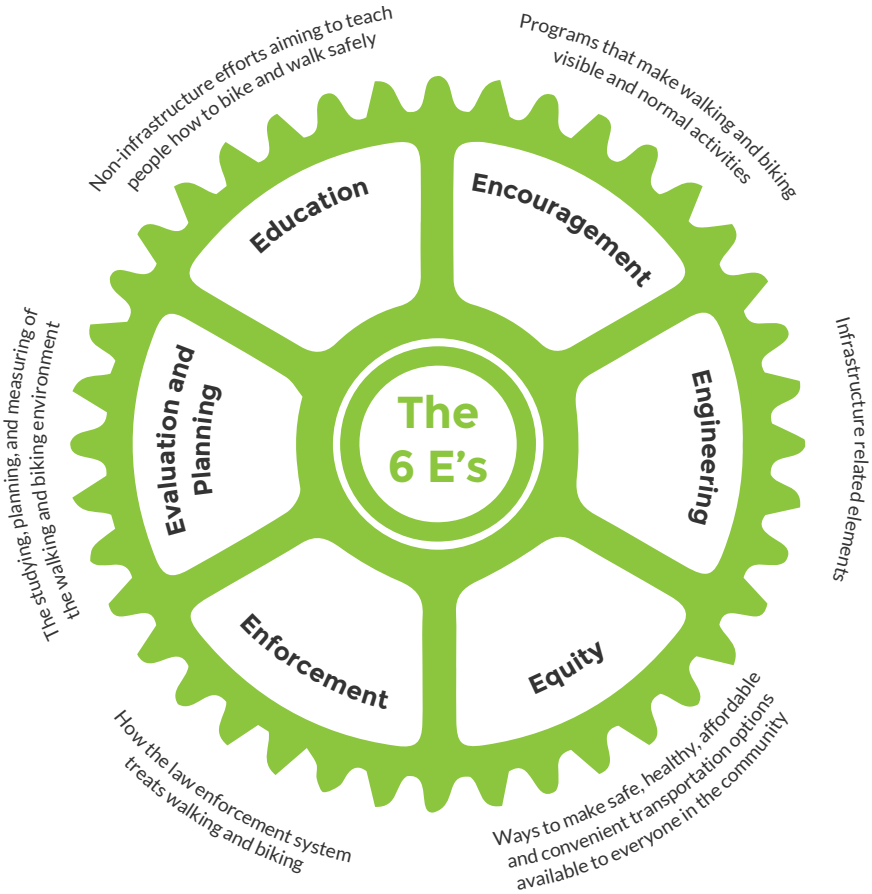
GUIDING PRINCIPLES

The Six Es of Active Transportation

In order to realize local goals and objectives, communities should use a multi-pronged strategy to advance pedestrian and bicycling activities and support development of active transportation networks that provide accessibility and connectivity for people and places.

The policies, programs and initiatives identified in this plan may be used to address one or more of the "Six Es" to help create more bikeable and walkable communities throughout the region: engineering, education, evaluation, enforcement, encouragement, and equity.

The principles articulated through the Six Es include the first five time-tested elements of this multi-pronged approach, with many communities now adding "equity" as the sixth element. Many policy, programmatic and design elements can be used to improve equity if they are targeted to address mobility needs of low-income residents, minorities, children, people with disabilities, and older adults.



POLICIES, PROGRAMS AND INITIATIVES

The national, multi-state and statewide programs, policies, and initiatives described on the following pages may be implemented singly or concurrently with each other. All support the goals of the *Regional Active Transportation Plan for Southwestern Pennsylvania.*

Plan Goals

- **Strengthen communities**
- **Improve transportation safety and security**
- **Enhance multimodal accessibility and connectivity**
- **Protect and enhance public health and the environment**

Accompanying each set of the recommended strategies that are put forth are answers to these two questions:

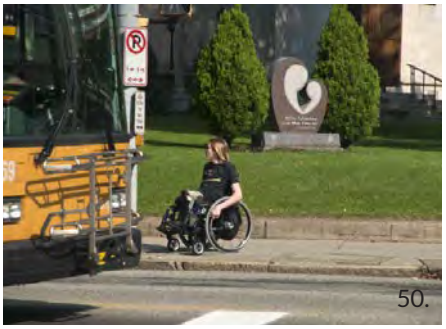
Who is it for?

What is the purpose?

The places in the region in which a given program and/or policy is being implemented are listed as well, answering the question:

What places are included?


49.


50.


51.


52.

Vision Zero (Engineering, Equity)

WHO IS IT FOR? Transportation professionals, policy makers and elected officials at all levels of government can adopt the goals and principles of Vision Zero and work toward the goal to eliminate traffic fatalities and severe injuries.

WHAT IS THE PURPOSE? Vision Zero is a strategy to eliminate all traffic fatalities and severe injuries, while increasing safe, healthy, equitable mobility for all. The concept of zero deaths was conceived in Sweden in 1994, and was titled Vision Zero. Vision Zero is a roadway safety initiative based on the idea that no loss of life is acceptable. The core concept behind Vision Zero is the fact that humans make mistakes and the road system should be designed to account for those mistakes to prevent loss of life.

WHAT PLACES ARE INCLUDED? Since its inception in 1997, many countries, state DOTs, cities, and regional agencies have adopted Vision Zero.

https://visionzeronetwork.org/

Toward Zero Deaths (Engineering)

WHO IS IT FOR? Transportation professionals, policy makers and elected officials at all levels of government can adopt a Toward Zero Deaths (TZD) strategy and support efforts to reduce deaths on our roadways.

WHAT IS THE PURPOSE? Toward Zero Deaths is the National Strategy on Highway Safety that brings together stakeholders by defining the common vision to drive individual and collaborative efforts to improve highway safety. TZD is intended to provide a roadmap for the future by identifying key safety focus areas and identifying countermeasures in education, engineering, enforcement and emergency medical services that can help achieve the shared goal to eliminate injuries and fatalities on our roadways.

WHAT PLACES ARE INCLUDED? PennDOT adopted TZD in 2012 and began incorporating it into its annual PA Strategic Highway Safety Plan. In 2017, SPC adopted the PennDOT safety targets that reflect the 2017 Strategic Highway Safety Plan goal of reducing fatalities and serious injuries by 2% annually.

https://www.towardzerodeaths.org/

Complete Streets (Engineering, Equity)

WHO IS IT FOR? Complete Streets policies, ordinances or resolutions are adopted by state, regional or local governments to formalize a community's intent to integrate people and place in the planning, design, construction, operation, and maintenance of streets. This helps to ensure that streets are safe for people of all ages and abilities, and to balance the needs of different modes.

WHAT IS THE PURPOSE? Complete Streets policies serve as the foundation for implementation by local governments, transportation planners and engineers who are responsible for ensuring that roadways are designed and operated to enable safe access for all users including pedestrians, bicyclists, public transportation users, motorists, and freight vehicles.

WHAT PLACES ARE INCLUDED? See list below.


53.

PLANS AND STUDIES THAT SUPPORT COMPLETE STREETS

- Harrison Township Biking/Walking Corridor Design and Planning, in progress
- Municipality of Monroeville Active Transportation Plan, in progress
- Rankin, Braddock, North Braddock, Turtle Creek and East Pittsburgh Active Transportation Plan, in progress
- Ross Township Active Transportation Plan, in progress
- Wilkins Township Active Transportation Plan, March 2018
- Indiana County Bicycle and Pedestrian Transportation Plan, 2012
- Kittanning Borough Transportation Study, including Complete Streets Walking Audit, 2011
- Active Allegheny, 2010

POLICIES

Ordinances

- City of Pittsburgh, Complete Streets Ordinance, 2016

Executive Orders

- City of Pittsburgh City-Wide Policy on Complete Streets, Executive Order, April 2015

Resolutions

- Etna Borough, Complete Streets Resolution, September 2018
- Millvale Borough, Complete Streets Resolution, September 2018
- Sharpsburg Borough, Complete Streets Resolution, July 2017
- Congress of Neighboring Communities (CONNECT) Complete Streets Resolution and Letter of Intent, April 2015: Allegheny County, Aspinwall, Baldwin Borough, Baldwin Township, Bellevue, Brentwood, Carnegie, Castle Shannon, Churchill, Clairton, Crafton, Dormont, Edgewood, Etna, Forest Hills, Green Tree, Heidelberg, Homestead, Ingram, Kennedy, McKees Rocks, Millvale, Mount Lebanon, Mount Oliver, Munhall, O'Hara, Penn Hills, Pittsburgh, Reserve, Robinson, Ross, Rosslyn Farms, Scott, Shaler, Sharpsburg, Stowe, Swissvale, West Homestead, West Mifflin, West View, Whitehall, and Wilkinsburg

WORKSHOPS

- Congress of Neighboring Communities (CONNECT) Complete Streets Workshop, November 2017: Allegheny County, Aspinwall, Baldwin Borough, Baldwin Township, Bellevue, Brentwood, Carnegie, Castle Shannon, Churchill, Clairton, Crafton, Dormont, Edgewood, Etna, Forest Hills, Green Tree, Heidelberg, Homestead, Ingram, Kennedy, McKees Rocks, Millvale, Mount Lebanon, Mount Oliver, Munhall, O'Hara, Penn Hills, Pittsburgh, Reserve, Robinson, Ross, Rosslyn Farms, Scott, Shaler, Sharpsburg, Stowe, Swissvale, West Homestead, West Mifflin, West View, Whitehall, and Wilkinsburg
- Indiana Borough, Pennsylvania State Association of Boroughs "Understanding Complete Streets Policies and Field Review' classroom training session, May 2018

https://smartgrowthamerica.org/program/national-complete-streets-coalition/

Safe Routes to School (Engineering, Equity)


54.

WHO IS IT FOR? Transportation, public health and planning professionals, school communities, law enforcement officers, community groups, parents and students all have roles to play in planning and implementing a Safe Routes to School program.

WHAT IS THE PURPOSE? Safe Routes to School (SRTS) programs aim to make it safer for students to walk and bike to school and encourage more walking and biking where safety is not a barrier. The program aims to reverse a decrease in students' physical activity and an associated increase in childhood obesity. Communities also reduce fuel consumption, alleviate traffic congestion, and improve air quality when fewer motor vehicles are on the road.

Note: The FAST Act eliminated the MAP-21 Transportation Alternatives Program (TAP) and replaced it with a set-aside of Surface Transportation Block Grant (STBG) program funding for transportation alternatives (TA). These set-aside funds include all projects and activities that were previously eligible under TAP, including Safe Routes to School projects.

WHAT PLACES ARE INCLUDED? Current TA and SMART funded projects: Homewood Pedestrian, Student and Transit Connectivity; City of Pittsburgh SRTS Coordinator Position; City of Pittsburgh

https://www.penndot.gov/TravelInPA/Safety/SchoolResourcesAndPrograms/SafeRoutesToSchool/Pages/default.aspx

https://www.saferoutespartnership.org/


55.

Bicycle Friendly America (Engineering, Encouragement)

56.

WHO IS IT FOR? States, local municipalities, neighborhoods, universities, and businesses can apply to the program to receive recognition in the form of a Bronze, Silver, Gold, or Platinum designation.

WHAT IS THE PURPOSE? The Bicycle Friendly America program, led by the League of American Bicyclists, is a national initiative that provides recognition, customized feedback and access to technical assistance to communities, universities and businesses that are leaders in or interested in creating a culture of decision-making and investment that supports bicycling. Increasing the number of bicycle friendly places is important as it improves safety, comfort and convenience of bicycling for all ages and abilities. This program is a tool for creating communities where biking is a safe and viable transportation option.

WHAT PLACES ARE INCLUDED? The region has one designated Bicycle Friendly Community (Pittsburgh); three designated Bicycle Friendly Universities (Chatham University, Carnegie Mellon University and the University of Pittsburgh); and several designated Bicycle Friendly Businesses. The number of Bicycle Friendly Businesses in each member county and the City of Pittsburgh is identified in the Active Transportation Profiles. The number of businesses that have been designated through a similar Bike Friendly Businesses recognition program offered by BikePGH is also identified.

https://bikeleague.org/community

Walk Friendly Communities (Engineering, Encouragement)

WHO IS IT FOR? Cities or towns that are leaders in or interested in creating walkable communities can apply to the program to receive recognition in the form of a Bronze, Silver, Gold, or Platinum designation.

WHAT IS THE PURPOSE? The program, which was developed by the University of North Carolina Highway Safety Research Center's Pedestrian and Bicycle Information Center (PBIC), was created to encourage towns and cities across the U.S. to establish or recommit to a high priority for supporting safer walking environments and show a commitment to improving and sustaining walkability and pedestrian safety through comprehensive programs, plans, and policies.

WHAT PLACES ARE INCLUDED? Two communities in the region have been designated as Bronze Level Walk Friendly Communities. These are Indiana Borough (Indiana) and Mt. Lebanon (Allegheny).

http://walkfriendly.org/

WalkWorks (Encouragement)

WHO IS IT FOR? Community health partnerships, hospitals, county planning departments, local governments and schools can develop and promote walking routes and walking groups.

WHAT IS THE PURPOSE? This initiative of the Pennsylvania Department of Health and the Center for Public Health Practice at the University of Pittsburgh's Graduate School of Public Health helps to identify and promote safe walking routes, offers social support through guided, community-based walking groups, and addresses local policies to increase safe walking routes.

WHAT PLACES ARE INCLUDED? Allegheny, Fayette, and Indiana counties participate in the WalkWorks program. Sponsoring groups in each county are listed below.

Allegheny

1. *Borough of Braddock*
2. *Hollow Oak Land Trust*
3. *Sewickley Valley YMCA*

Fayette

1. *Fayette Business Park*
2. *Fayette County*
3. *Highlands Hospital*
4. *Masontown*
5. *Point Marion*
6. *Uniontown Hospital*

Indiana

1. *Blairsville*
2. *Clymer*
3. *Ernest*
4. *Glen Campbell*
5. *Homer City*
6. *Indiana Borough*
7. *Indiana Regional Medical Center*
8. *Penns Manor*
9. *White Township*

58.

http://www.health.pa.gov/WalkWorks/Pages/default.aspx#.Wyos1oonZph

59.

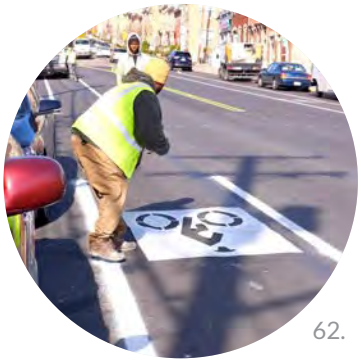
60.

SECTION 6
Plan Implementation

This section of the Active Transportation Plan provides a summary of the steps involved in local planning for active transportation networks, identifies network connection opportunities in the regional trail system, and highlights technical assistance that is available from SPC to assist local governments in planning and implementing active transportation improvements in their communities. It also identifies innovative design guidelines and best practices that local governments may consider in the future, followed by examples of best practices in bicycle and pedestrian infrastructure that are being employed in the region.

To support implementation of the plan, SPC staff will continue to offer technical support and resources to assist local governments and agencies in preparing, planning and executing their community's priority projects and investments.

61. *Connecting the regional trail network*



62. *Retrofitting and redesigning roads*

63. *Creating more accessible pedestrian corridors*

STEPS FOR CREATING AN ACTIVE TRANSPORTATION NETWORK

The following pages summarize the steps that communities can follow to turn active transportation plans and ideas into viable, deliverable projects. The steps cover numerous phases of the project development process from planning to design, construction and maintenance. SPC staff is available to provide technical expertise and assistance to communities as they move forward with the steps that are outlined below. Additional resources can also be accessed through SPC's Active Transportation Resource Center, which is highlighted following this outline.

Plan

1. *Appoint planning advisory committee.*
2. *Identify vision, goals, objectives, and performance measures.*
3. *Inventory existing conditions.*
4. *Collect input from stakeholders.*
5. *Conduct needs assessment.*
6. *Develop active transportation recommendations – projects, programs, and policies.*
7. *Anticipate long-term maintenance and operations needs.*
8. *Develop and prioritize implementation strategies.*
9. *Identify potential partners and funding sources.*
10. *Adopt plan.*

Adopt Policies & Procedures

1. *Survey best practices for planning, design, operations, safety and maintenance.*
2. *Identify and assess costs and benefits.*
3. *Create new or adapt model policies and ordinances to meet local needs.*
4. *Develop maintenance agreements and schedules.*
5. *Prepare community education and information plan.*
6. *Adopt policies and procedures.*
7. *Implement policies and procedures.*

Design

1. *Preparation of surveys.*
2. *Right-of-way clearance.*
3. *Right-of-way acquisition.*
4. *Environmental clearance and permits.*
5. *Historic and archaeological clearance.*
6. *Utilities field scope and view.*
7. *Consider models for ensuring effective operation and maintenance, including potential costs.*
8. *Design project.*
9. *Prepare phasing plan as necessary.*
10. *Identify local match sources.*
11. *Identify potential sources of funding.*

Fund

1. *Quantify hard and soft costs.*
2. *Identify schedule for funding applications and awards.*
3. *Secure local match sources.*
4. *Conduct pre-application meetings with potential funders.*
5. *Develop and submit funding applications.*
6. *Secure project funding.*

Implement

1. *Develop plans, specifications and estimates.*
2. *Execute maintenance agreements.*
3. *Advertise project.*
4. *Award construction contract.*
5. *Contract administration.*
6. *Project closeout.*
7. *Ribbon cutting.*

Maintain

1. *Understand project maintenance requirements and responsibilities during planning and design.*
2. *Identify required equipment.*
3. *Develop maintenance policies and practices.*
4. *Estimate task frequency, plan routine and seasonal maintenance schedules.*
5. *Develop and enact maintenance agreements.*
6. *Anticipate emergency repairs.*
7. *Implement maintenance reporting system.*
8. *Prioritization of routes.*
9. *Spot improvement programs.*
10. *Evaluate progress.*

Evaluate

1. *Safety.*
2. *Access/mobility.*
3. *Economic vitality.*
4. *Public health.*
5. *Environmental quality.*
6. *Livability/quality of life.*

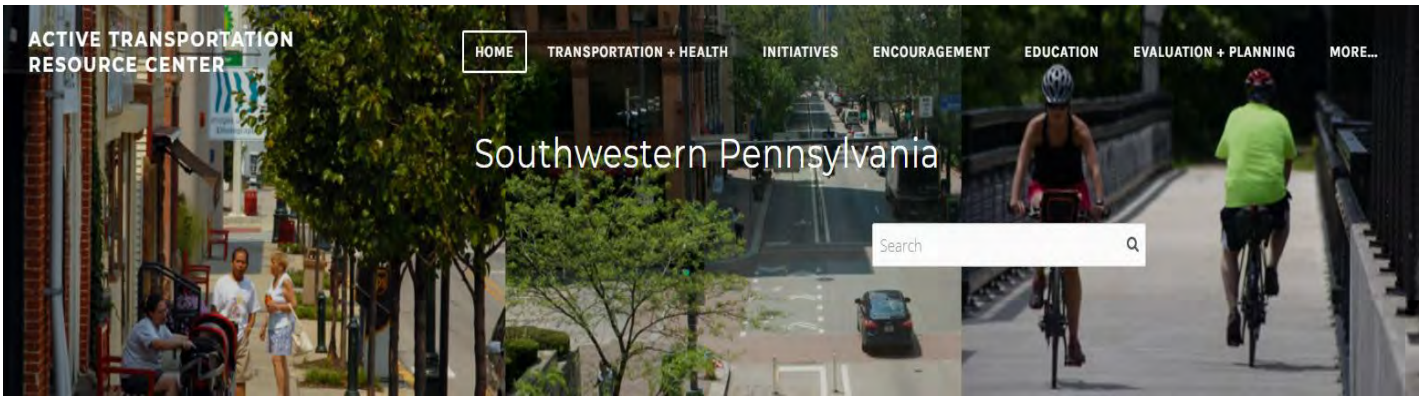
RESOURCES, OPPORTUNITIES AND DESIGN GUIDANCE

Active Transportation Resource Center

SPC developed a companion, web-based resource, known as the Active Transportation Resource Center (ATRC) to accompany the plan and identify guidance and technical resources to assist local governments in planning and building active transportation networks.

Active transportation resources include:

- Federal and state bicycle and pedestrian guidance documents
- Information on programs that promote active transportation, such as Complete Streets, Safe Routes to School, Bicycle and Walk-Friendly Community designation programs, etc.
- Potential funding programs
- Local government planning resources
- Roadway, bicycle, and pedestrian design guidelines and standards
- Project implementation tools and resources
- Non-motorized data collection resources
- Educational resources and fact sheets
- Identification of regional bicycle and pedestrian programs
- Important links
- Other relevant material



https://www.atrc-spc.org

Regional Trail Network Connection Opportunities

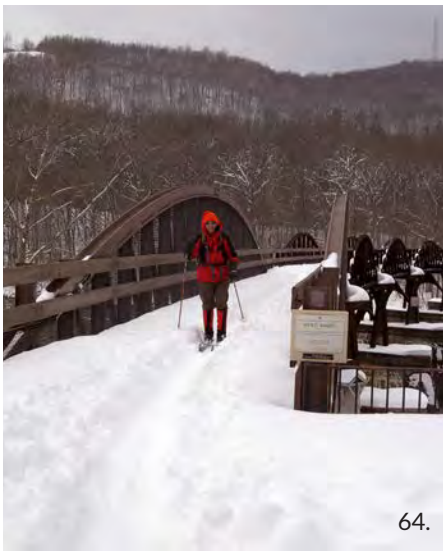
As build-out of the regional trail system continues, increased trail use and awareness builds social capital and support for even greater enhancements to the system. A well connected trail system will have long-term impacts on the health and well-being of residents, provide safe active transportation routes, increase tourism, and help revitalize existing communities.

Many of the "easy" links in the regional trail network have been built, but the key to maximizing the benefits of the system will be in advancing the remaining key connections in order to create a truly connected network that is integrated into the local communities that it serves. Supporting efforts to complete key connections in the regional trail network will help advance the highest ranked active transportation plan objective, which is: "Support regional collaboration on planning for active transportation corridors and encourage connectivity with and between local and regional networks, including multi-state networks."

The Regional Trail Network Connection Opportunities Map identifies opportunity areas for connecting the regional trail network through trail expansion or by providing facilities on low-volume roadways that interconnect with the trail system. On-street portions of a trail system should provide safe and comfortable 'trail-like' connections, so that people walking and bicycling experience safe, seamless transitions. Linking existing trails and trails currently under construction will build off of decades of work done by local and regional trail councils as well as local municipalities that have already developed hundreds of miles of the existing network.

Connecting the regional trail network, retrofitting and redesigning roads, and creating more accessible pedestrian corridors will lead to development of a connected active transportation network over time. Successful implementation will require continued support from all levels of elected officials and local advocates, as well as close coordination with PennDOT and municipal and county governments.

The steps involved in identifying opportunities at a local level include planning for and prioritizing bicycle and pedestrian projects and working with a variety of organizations and individuals such as community groups, county officials, PennDOT, and SPC to put forward projects for consideration for funding through the region's Transportation Improvement Program (TIP). PennDOT Publication 740 gives an overview of the required process for delivering local projects using federal and/or state funding. Early understanding of these requirements helps to streamline the overall process and implement a project from inception to construction. As depicted in the Project Delivery Process graphic on Page 18, the phases involved for delivering local projects generally include planning and programming, preliminary design, final design and construction. Not all local projects will require each phase. The time required to progress a project through each stage varies depending on project type and funding availability and type.



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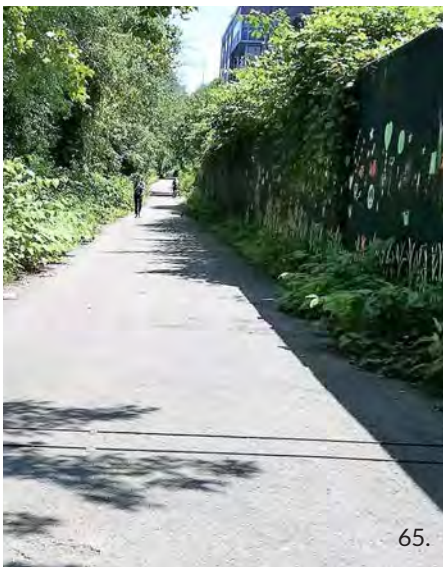

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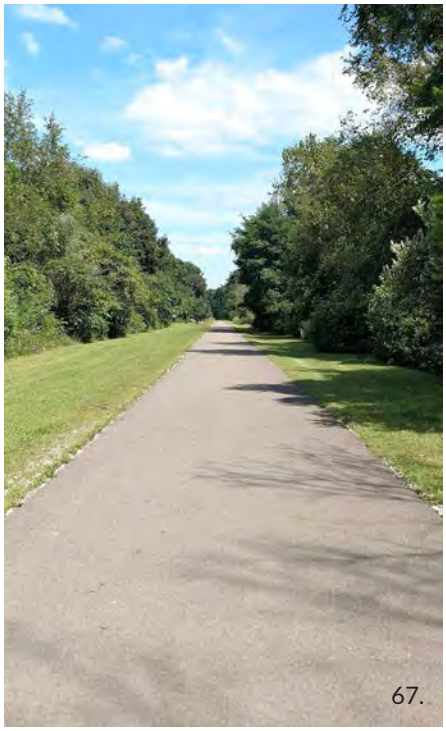

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Incorporating bicycle and pedestrian projects into all aspects of transportation planning, project development, funding, implementation and maintenance supports a Complete Streets approach and will improve safety, convenience, and accessibility for users of all ages and abilities and help balance the needs of different modes.

In addition to improving conditions for biking and walking, implementing activities and programs such as those identified in Section 5/Toward the Vision can help create a culture for bicycling and walking and continue to build support for connecting the regional trail network.

Statewide Trail Network

The Pennsylvania Department of Conservation and Natural Resources (DCNR) developed the Pennsylvania Land and Water Trail Network Strategic Plan (2015), which is Pennsylvania's trail strategy through 2019. State trail goals include filling trail gaps and having a trail within 15 minutes of every PA citizen (Source: DCNR Trail Development).

Filling Trail Gaps

Several of the state's larger trail networks are complete or nearly complete and a statewide network is gradually being realized. The Pennsylvania Department of Conservation and Natural Resources (DCNR) works closely with partners to identify and map areas where segments are not yet planned or developed within Pennsylvania's major and regionally significant greenway and trail systems.

The trail strategy identified by DCNR calls out the state's most important and significant gaps as the "Top 10 Trail Gaps." The Top 10 Trail Gaps represent projects that: connect contiguous open miles of trails; require construction or rehabilitation of major infrastructure; and have a large funding need (DCNR: Exploring Trail Gaps).

A Trail within 15 Minutes of Every PA Citizen

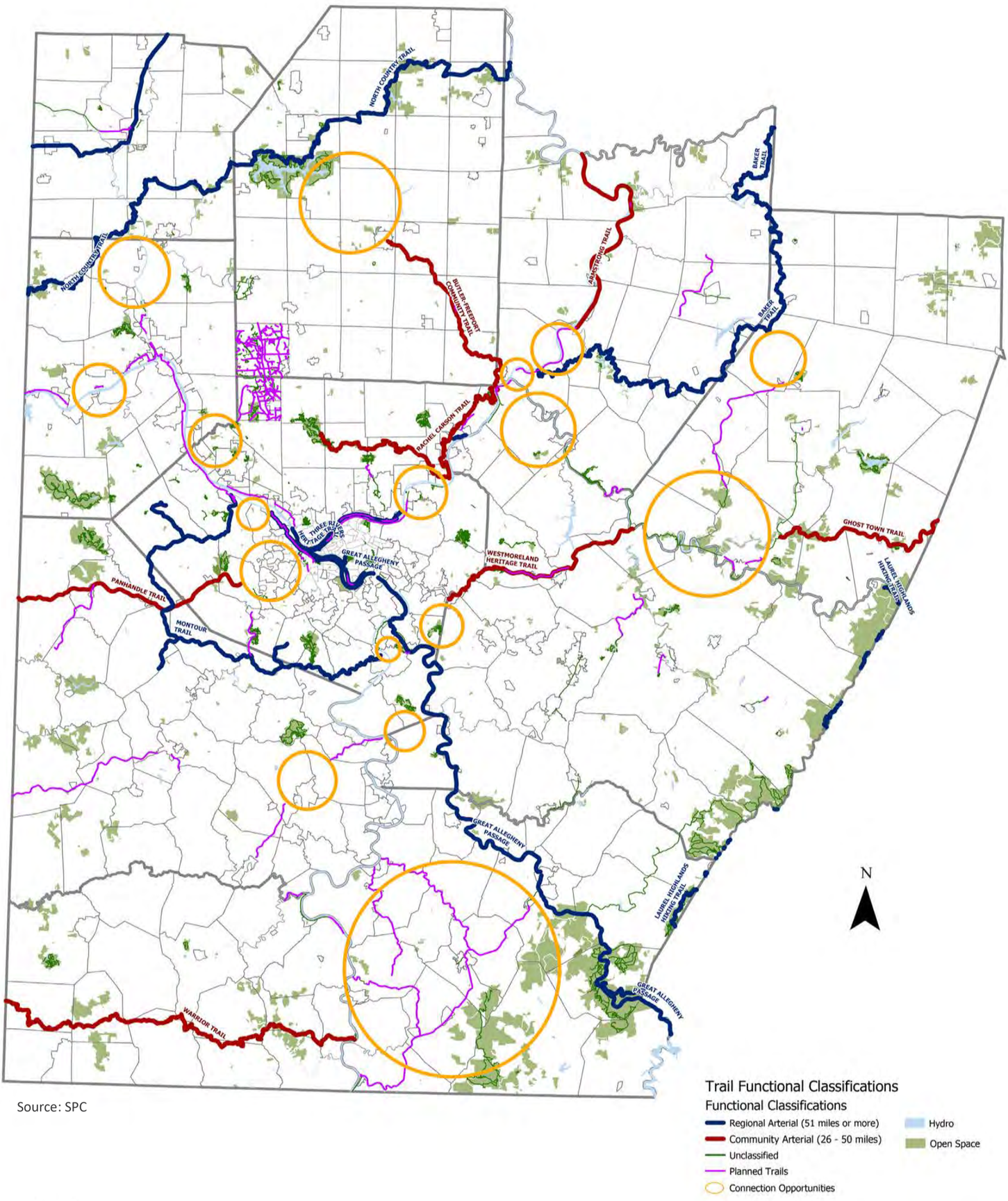
The state's goal is to have a trail within 15 minutes of every Pennsylvania citizen. DCNR's Bureau of Recreation and Conservation supports the non-motorized and motorized trail community by providing financial and technical resources and the strategic vision necessary to meet this goal.

The Armstrong Trail's Brady Tunnel is identified as one of Pennsylvania's top priority trail projects.

"The Armstrong Trail is a 36-mile multi-use trail that follows the alignment of the former Allegheny Valley Railroad in Armstrong and Clarion Counties, and is part of the 333-mile Erie to Pittsburgh Trail. The Brady Tunnel is currently closed due to its deteriorated state. Once rehabilitated, it will connect 4 miles of Armstrong Trail to the north with 32 miles of the trail to the south to create a fully-connected 36-mile trail system."

Source: DCNR Exploring Pennsylvania's Top Ten Trail Gaps

Regional Trail Network Connection Opportunities



Source: SPC

Accessible Pedestrian Corridors

The Americans with Disabilities Act (ADA) of 1990 and Section 504 of the Rehabilitation Act of 1973 address how transportation facilities should accommodate persons with disabilities. ADA and Section 504 do not require public agencies to provide pedestrian facilities. However, where pedestrian facilities exist, they must be accessible. Within the public right-of-way, sidewalks are considered a pedestrian access route, as are transition points, such as crosswalks, paths, traffic signals and other pedestrian facilities. Sidewalks and transition points are inextricably linked to form an accessible path. A complete sidewalk network includes continuous, well maintained, ADA-compliant sidewalks and curb ramps.

In order to create a complete sidewalk network, communities need to determine the location and condition of existing sidewalks. A sidewalk inventory can be initiated by analyzing aerial photography, but often requires manual field data collection to verify other potential attributes, including sidewalk width, condition and type. Crosswalks are commonly installed with street paint or reflective materials to mark their location. These treatments fade over time and markings become difficult to identify via aerial photography.

As a result, crosswalk identification is not well-suited for a regional analysis, but is more appropriate for individual municipalities when they evaluate their own sidewalk networks.

SPC staff can provide mapping, data services and planning expertise to assist local governments in completing inventories of sidewalks, curb ramps, crosswalks and other related pedestrian datasets. Additional information and guides for completing sidewalk inventories and assessments are included in the Active Transportation Resource Center.

A sidewalk inventory can serve as an important tool for establishing local priorities for funding and constructing sidewalk projects that are necessary to create a connected network of accessible pedestrian corridors. In addition, inventory data can be provided to planning staff for inclusion in SPC's inventory of existing bicycle and pedestrian infrastructure.

Improving Access to Transit

The presence of complete sidewalks and safe, convenient crossings and accommodations for people who bike, such as providing bicycle parking and on-vehicle accommodations, are important components of a multimodal transportation network.

Since transit agencies do not control the street network around stations and stops, local governments play a large role in improving access to transit. This can be accomplished by creating more walkable and bikeable communities and encouraging Transit Oriented Development (TOD). TOD refers to deliberately planned higher-density, mixed-use development within walking distance of a transit station.

Examples of projects that improve conditions for walking and improve connections to transit include the Castle Shannon Streetscape Project. This project will provide access for persons with disabilities between three transit stations in Castle Shannon, along with improved access and safety to complement a new, multi-unit apartment building being built on a Port Authority of Allegheny County parking lot.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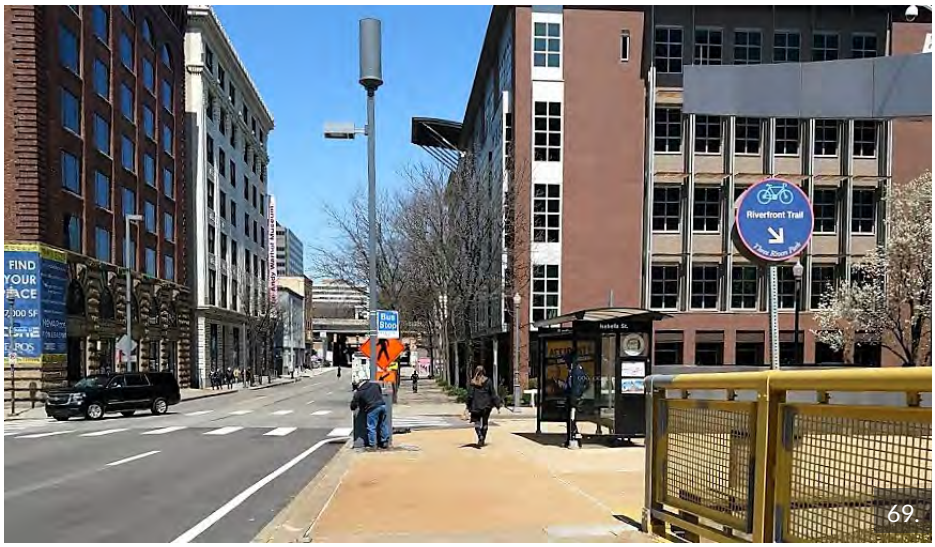

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Designing Active Transportation Networks

National Design Guidance

In many communities, accommodating and encouraging walking and bicycling requires retrofitting an existing transportation system with constrained rights-of-way to include new or improved bicycle and pedestrian infrastructure. The following resources highlight national guidance on design flexibility, followed by identification of guides that provide specific information about flexible design treatments and approaches that can be applied when building both new and retrofit projects to create safer, more comfortable and connected multimodal transportation networks.

Federal Highway Administration Memo on Bicycle and Pedestrian Design Flexibility

In 2013, the U.S. Department of Transportation Federal Highway Administration (FHWA) issued guidance on Bicycle and Pedestrian Facility Design Flexibility. This guidance expresses the FHWA's support for taking a flexible approach to bicycle and pedestrian facility design.

Federal Highway Administration Design Standards

The Fixing America's Surface Transportation (FAST) Act makes several changes to design standards to increase flexibility and provide for greater accommodation of all highway users. The FAST Act adds the AASHTO Highway Safety Manual and the National Association of City Transportation Officials (NACTO) Urban Street Design Guide to the list of resources that DOT must consider in developing criteria to provide greater accommodation of all highway users. Under the FAST Act, local entities that are direct recipients of federal dollars are allowed to use a design publication that is different than the one used by their state DOT.

Manual on Uniform Traffic Control Devices for Streets and Highways

The Manual on Uniform Traffic Control Devices for Streets and Highways, or MUTCD defines the standards used by transportation planners and engineers nationwide to install and maintain traffic control devices on all public streets, highways, bikeways, and private roads open to public travel. The MUTCD is published by the Federal Highway Administration (FHWA). Pedestrian control features are addressed in Chapter 4E and Chapter 9 addresses traffic control for bicycle facilities.

Pennsylvania Design Guidance

Pennsylvania Department of Transportation (PennDOT) Design Manual

The purpose of PennDOT's Design Manual, Part 2 on Highway Design (Publication 13M) is to provide current, uniform procedures and guidelines for the application and design of safe, convenient, efficient and attractive highways that are compatible with their service characteristics and that optimally satisfy the needs of highway users while maintaining the integrity of the environment. Chapter 19 discusses considerations for providing pedestrian facilities, bicycle facilities, and public transportation. Specific guidance on selecting design values is provided for bicycle facilities in Chapter 16 and for pedestrian facilities and the Americans with Disabilities Act in Chapter 6.

Bicycle and Pedestrian Design Guides

The following design guides, which are included in the Active Transportation Resource Center, provide specific information about flexible design treatments and approaches that can be applied when building both new and retrofit projects to create safer, more comfortable and connected multimodal transportation networks.

American Association of State Highway and Transportation Officials (AASHTO) Guide for the Development of Bicycle Facilities

This guide, updated in 2017, provides information on the physical infrastructure needed to support bicycling. It retains the strong statement that "All roads, streets and highways, except those where bicyclists are legally prohibited, should be designed and constructed under the assumption that they will be used by bicyclists." Its premise is that bicycles, as

a mode of transportation, should be integrated into plans and projects at an early stage to best ensure that all modes function together effectively. The guide provides information on how to accommodate bicycle travel and operations in most riding environments.

American Association of State Highway and Transportation Officials (AASHTO) Guide for the Planning, Design, and Operation of Pedestrian Facilities

The purpose of this guide is to provide guidance on the planning, design, and operation of pedestrian facilities along streets and highways. Specifically, the guide focuses on identifying effective measures for accommodating pedestrians on public rights-of-way. The guide also recognizes the impact that land use planning and site design have on pedestrian mobility and addresses these topics as well.

National Association of City Transportation Officials (NACTO) Urban Bikeway Design Guide

This 2014 design guide taps the experience of the best cycling cities in the world, and presents "state-of-the practice" ideas for creating bikeways that are safe and enjoyable for bicyclists. With the goal of offering substantive guidance for cities that want to improve bicycle transportation, the guide list elements it deems "required," "recommended," or "optional." The ideas in this guide are intended to complement, not reiterate, those presented in the AASHTO guide.

FHWA Small Town and Rural Multimodal Networks (Federal Highway Administration)

This 2016 guide is an idea book and design resource to help towns and rural communities support safe, accessible, comfortable and active travel for people of all ages and abilities. It recognizes that many small and rural communities are located on roads and highways that were built primarily to serve high-speed motorized traffic, but are in fact often used for active transportation. The guide is intended as a resource for retrofitting and redesigning those roads over time to incorporate best practices for safety and comfort in the rural context.

FHWA Separated Bike Lane Planning and Design Guide

This 2015 guide outlines planning considerations for separated bike lanes (also called "cycle tracks" or "protected bike lanes") and provides a menu of design options covering typical one- and two-way scenarios. It highlights different options for providing separation, while also documenting midblock design considerations for driveways, transit stops, accessible parking, and loading zones. It provides detailed intersection design information covering topics such as turning movement operations, signalization, signage, and on-road markings.

Guidelines for Pedestrian Facilities in the Public Right-of-Way (PROWAG)

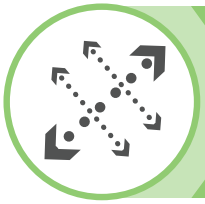
The U.S. Access Board is the federal agency responsible for developing and updating accessibility guidelines under the Americans with Disabilities Act (ADA) of 1990. The Access Board published its Proposed Guidelines for Pedestrian Facilities in the Public Right-of-Way (PROWAG) in 2011. At the time of publication of this document, the Board had not issued a final PROWAG rule. The PROWAG will become an enforceable standard only after the Board publishes a final rule and after the U.S. Department of Justice (USDOJ) and/or the U.S. Department of Transportation (USDOT) adopt the final guidelines into their respective ADA and Section 504 of the Rehabilitation Act regulations. Until that time, the USDOJ 2010 ADA Standards and the USDOT 2006 ADA and Section 504 Standards provide enforceable standards applicable to the public right-of-way. Where the 2010 ADA Standards or the 2006 ADA and Section 504 Standards do not address a specific issue in the public right-of- way, the Federal Highway Administration encourages public entities to look to the draft PROWAG for best practices.

Federal Highway Administration Multimodal Network Principles

The Federal Highway Administration (FHWA) identifies principles of exemplary multimodal network creation. From the perspective of the FHWA, an active transportation system is defined as follows: "A bicycle and pedestrian transportation network consists of a series of interconnected facilities that allow non-motorized road users of all ages and abilities to safely and conveniently get where they need to go" (FHWA: *Noteworthy Local Policies that Support Safe and Complete Bicycle and pedestrian Networks*). The FHWA principles address important aspects of an active transportation network:

Cohesion

How connected is the network in terms of its concentration of destinations and routes?



Directness

Does the network provide direct and convenient access to destinations?

Accessibility

How well does the network accommodate travel for all users, regardless of age or ability?

Alternatives

Are there a number of different route choices available within the network?

Safety and Security

Does the network provide routes that minimize risk of injury, danger, and crime?

Comfort

Does the network appeal to a broad range of age and ability levels, and is consideration given to user amenities?

Speed Management

Motorized traffic speeds and volumes are key considerations in selecting the most appropriate bicycle and pedestrian facilities along a particular roadway within a multimodal network. In areas with higher speeds and volumes, a greater amount of separation is desired for comfortable biking and walking facilities. Where there are low volumes and speeds, the need for separation is less critical and mixing motorized and non-motorized modes may be appropriate. In cases where speeds and volumes do not meet preferred values, speed management techniques can be used to help ensure that people driving, walking and biking can all safely use the street.

The importance of reducing vehicle speeds cannot be overstated in an area where there is potential for conflict between people walking or biking and people driving motor vehicles. A growing body of research indicates that higher vehicle speeds are strongly associated with both a greater likelihood of pedestrian crash occurrence and more serious resulting injury (National Highway Traffic Safety Administration). Reductions in vehicle travel speeds can be achieved through lowered speed limits, police enforcement of speed limits, community-based speed reduction programs and public education. Long-term speed reductions in areas where vehicles and pedestrians or bicyclists commonly share the roadway can be achieved through traffic calming measures that have the ability to slow motor vehicles in the absence of enforcement.

Source: *Impact Speed and a Pedestrian's Risk of Severe Injury or Death*. Brian Tefft, AAA Foundation for Traffic Safety, 2011

Traffic Calming

https://www.dot.state.pa.us/public/PubsForms/Publications/PUB%20383.pdf

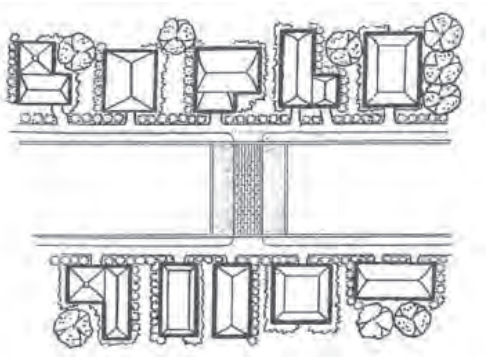
Traffic calming consists of physical design solutions, signs and pavement markings that are put in place on existing roads to reduce vehicle speeds and cut-through traffic, with the goal of making streets safer and more accessible for people driving, walking and biking. Traffic calming measures that involve physical changes to the roadway can be grouped into three categories based upon the means by which they reduce volumes or speeds. Descriptions for each category, as described in *Pennsylvania' Traffic Calming Handbook*, are listed below.

Horizontal deflection refers to two types of traffic calming measures. The first type hinders the driver's ability to drive in a straight line by creating a horizontal shift in the roadway. This shift forces drivers to slow their vehicles in order to safely navigate the measure. The second type of horizontal deflection measure is designed to narrow the width of the travel lane. Commonly used measures: curb extension, chicane, gateway, on-street parking, raised median island, pedestrian refuge island, and traffic circle.

Chicane: *Pennsylvania's Traffic Calming Handbook*

Vertical deflection measures create a change in the height of the roadway causing drivers to slow down when traveling over these measures. Commonly used measures: speed hump, speed cushion, raised crosswalk, and raised intersection.

Physical obstruction refers to measures that prevent particular vehicle movements, thereby discouraging or eliminating cut-through traffic. Commonly used measures: semi-diverter, diagonal diverter, right-in / right-out island, raised median through intersection, and street closure.



Raised Crosswalk: *Pennsylvania's Traffic Calming Handbook*

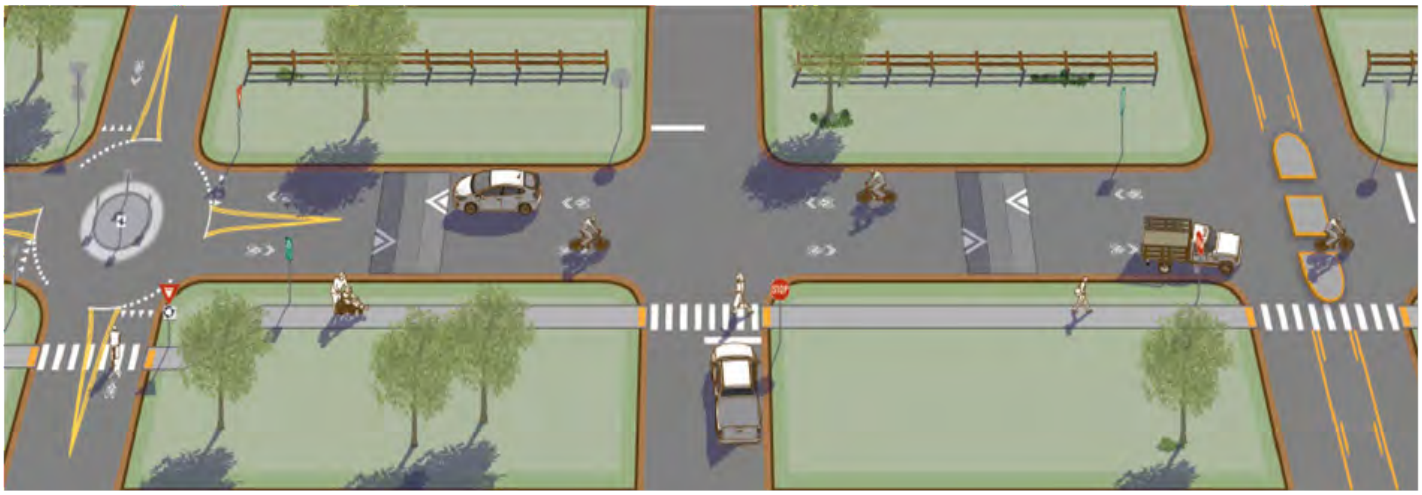
Pedestrian Improvements

Traffic calming measures that improve street crossing visibility, shorten the street crossing distance, and reduce the speed and volume of passing vehicle traffic can have positive effects on pedestrian safety and mobility. Raised crosswalks, pedestrian refuge islands and curb extensions have the most direct and obvious benefits. Community gateway entrance treatments and streetscape improvements also improve safety conditions and create a welcoming environment for walking (see pedestrian design elements on Page 84).

Bicycle Boulevards

Traffic calming measures can be used to develop bicycle boulevards or low-stress shared roadways designed to offer priority for bicyclists operating within a shared roadway with motor vehicle traffic. Bicycle boulevards are appropriate on local streets with low speeds and volumes. Combinations of markings, signage, traffic calming measures, and improved crossing treatments are used to create the desired operating conditions. Commonly used measures include raised median islands and diverters that may be designed to prevent right- or left-hand turns, to block straight-ahead travel and force turns to the right or left, or create a "T" intersection. In all cases, paths or cut-throughs should be made to allow pedestrians and bicyclists access across the closure. Special attention is also given to bicyclists at intersections and other areas of conflict where it is important to give bicyclists priority to maintain free-flow travel (see bicycle design elements on Page 80).

Bicycle boulevard; geometric design



Source: *Small Town and Rural Multimodal Networks, FHWA*

BICYCLE AND PEDESTRIAN FACILITY TYPES

There is a range of different types of bicycle and pedestrian facilities that can be applied in various contexts to support safe, accessible, comfortable and active travel for people of all ages and abilities in cities, small towns and rural areas. This section of the plan provides an overview of design information for innovative bicycle and pedestrian facility types. The application context of each facility is identified within sidebar graphics that answer the questions: "On which types of streets is the facility recommended?"; "On which part of the roadway network is the facility type likely to be applicable?"; and "In what land use context is this facility type most appropriate?"

Each overview is followed by examples of that facility type being employed in the region, if applicable.

1. *Shared Lane*
2. *Bicycle Lane*
3. *Separated Bicycle Lane*
4. *Bicycle Design Elements*
5. *Pedestrian Lane*
6. *Pedestrian Design Elements*

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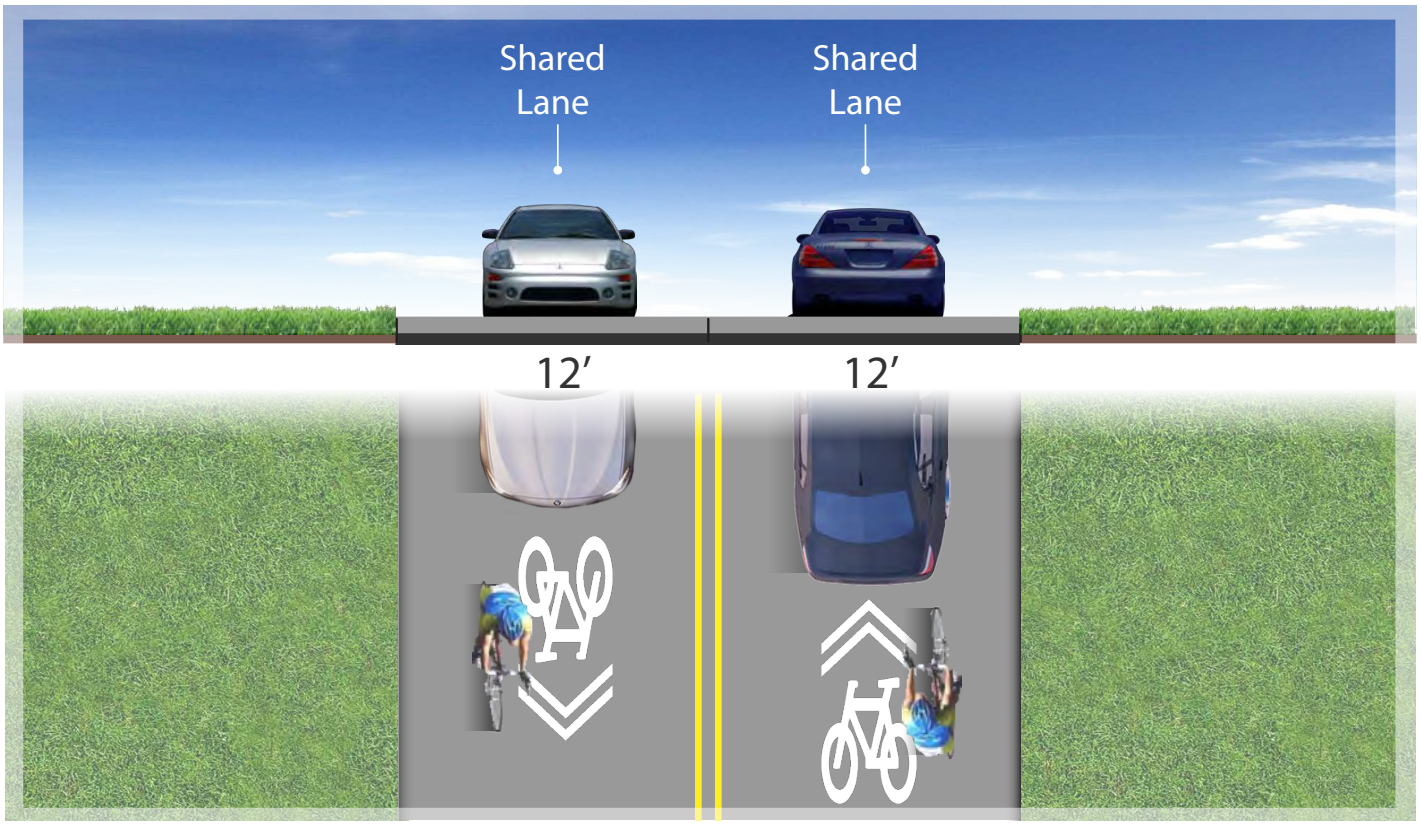
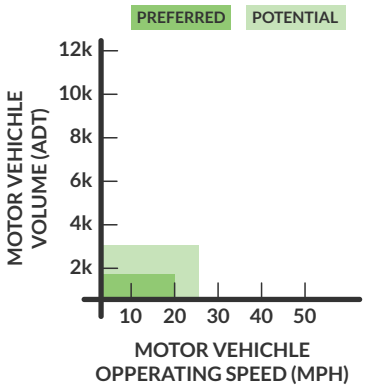
Shared Lane

Mixed Traffic

Shared lanes are roads that have shared lane pavement markings or "sharrows" that indicate a shared environment for bicycles and automobiles. Shared roads may also include directional signage, traffic diverters, chicanes or other traffic calming measures to reduce vehicle speeds or volumes. Such treatments are often associated with bicycle boulevards.

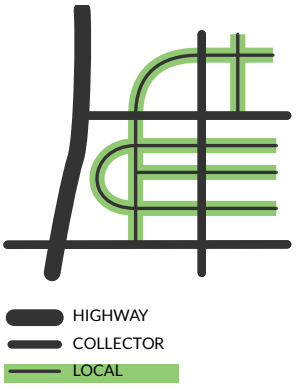


Traffic Speed/Density



- Preferred use on local streets with low volumes and low speeds. Speed and volume management may be necessary to create desired operating conditions.

Street Function



- Preferred Use: on local streets.

Land Use

- Preferred Use: Suburban.
- Potential Use: Rural, Urban.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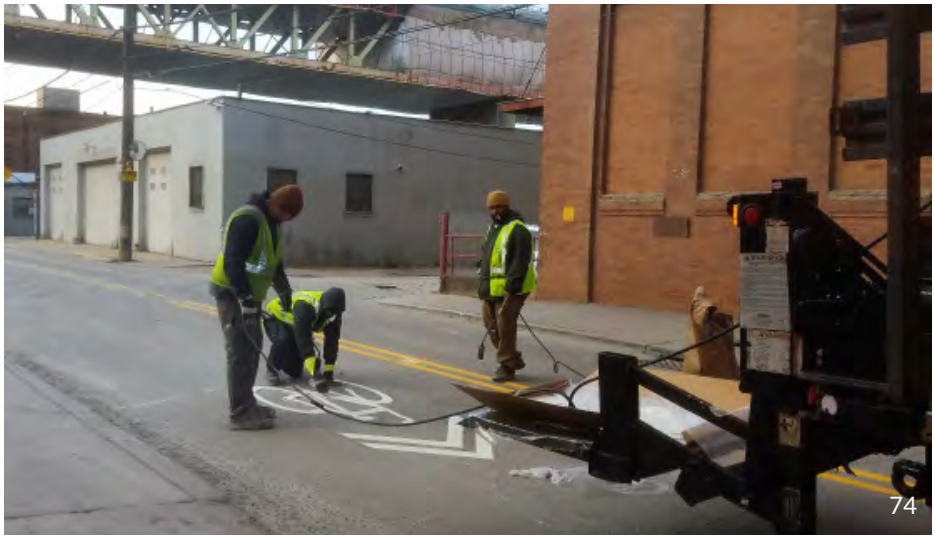
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COMMON NAME

- Shared lane markings
- Sharrows

BENEFITS

- Shared lane markings help improve cyclist positioning in the roadway, especially when it comes to avoiding the open door of a parked vehicle.
- Markings also help to alert drivers of the potential presence of people bicycling.

CONSIDERATIONS

- Long-term maintenance costs should be taken into consideration as durability and costs are generally inversely related.
- The shared lane markings may be placed in the center of the travel lane between vehicular wheel paths to minimize wear.
- These markings may also be used to fill in the gap between two sections of a roadway with bike lanes or on roadways that interconnect with a trail.

DESIGN GUIDANCE

- AASHTO Bike Guide
- NACTO Urban Bikeway Design Guide

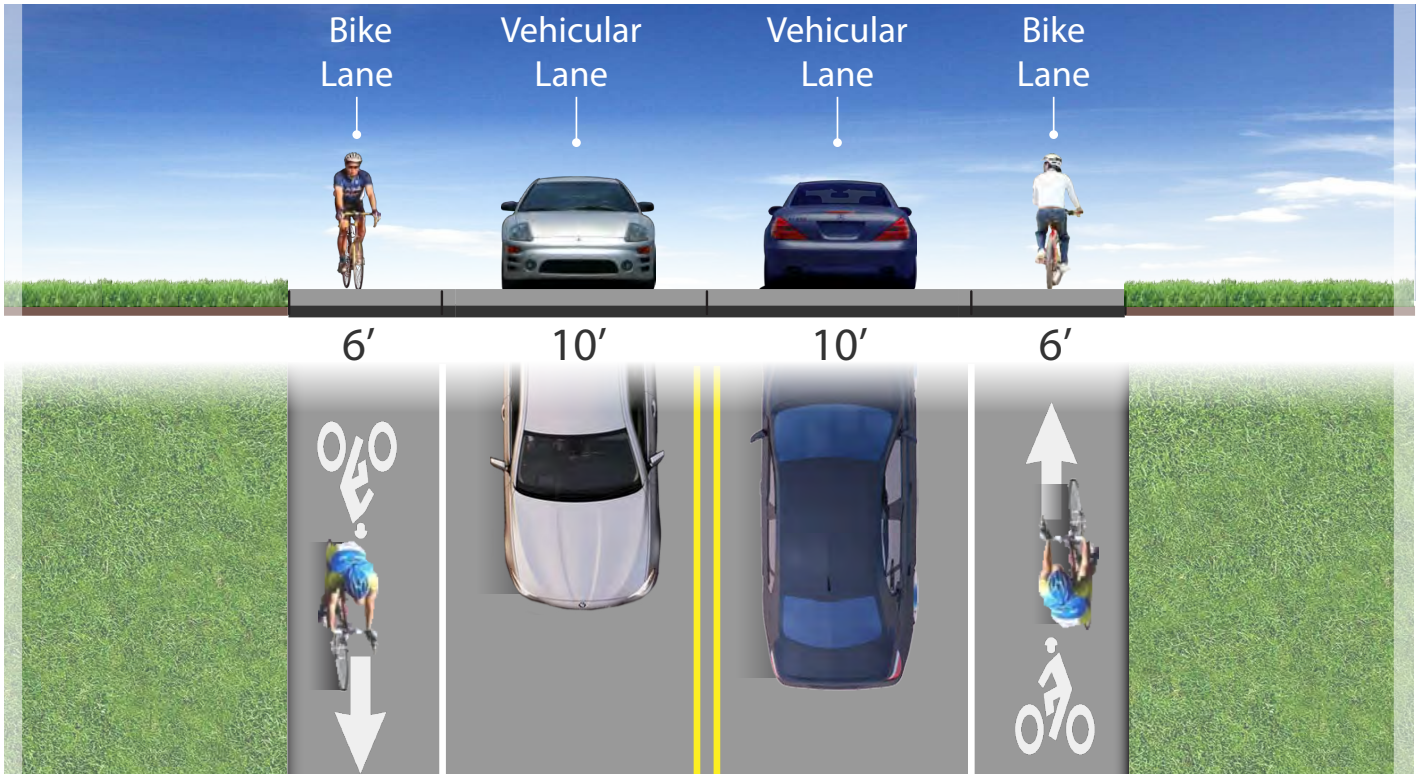
NOTE

Although a shared lane pavement marking offers a wide variety of benefits, it should not be considered as a substitute for bike lanes, separated bike lanes or other treatments that offer more separation where space permits.

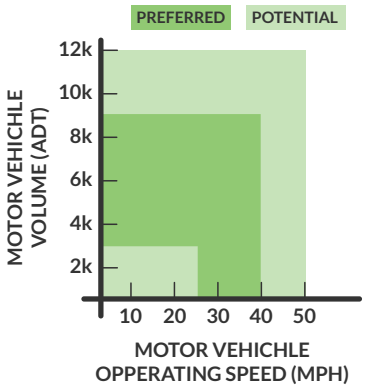
Bicycle Lane

Visually Separated Facility

A bicycle lane is defined as a portion of the roadway that has been designated by striping, signage, and pavement markings for the preferential or exclusive use of bicyclists. The lane is located adjacent to motor vehicle travel lanes and flows in the same direction as motor vehicle traffic. Bicycle lanes are typically installed on the right side of a street between the adjacent travel lane and curb, road edge, or parking lane. This facility type may be located on the left side of a street when installed on one-way streets. It may also be paired with a designated buffer space to separate the bicycle lane from the adjacent motorized traffic or parking lane if space permits.



Traffic Speed/Density



- Appropriate on streets with moderate volumes and moderate speed. Fails to provide low-stress experience on multi-lane streets with heavy traffic.

Street Function

- Preferred Use: on local and collector streets.

Land Use

- Preferred Use: Rural, Suburban
- Potential Use: Urban

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COMMON NAME

- Bike lane
- Conventional, traditional or standard bike lane

BENEFITS

- Creates visual separation between bicyclists and motorists.
- Increases bicyclist comfort on busy streets.

CONSIDERATIONS

- Colored pavement may be used to enhance the visibility of a bike lane.
- Because the effectiveness of markings depend on their visibility, maintaining markings should be a high priority.
- Buffer striping may require additional maintenance when compared to a conventional bike lane.
- Lanes should be plowed clear of snow and kept free of debris by regular sweeping.

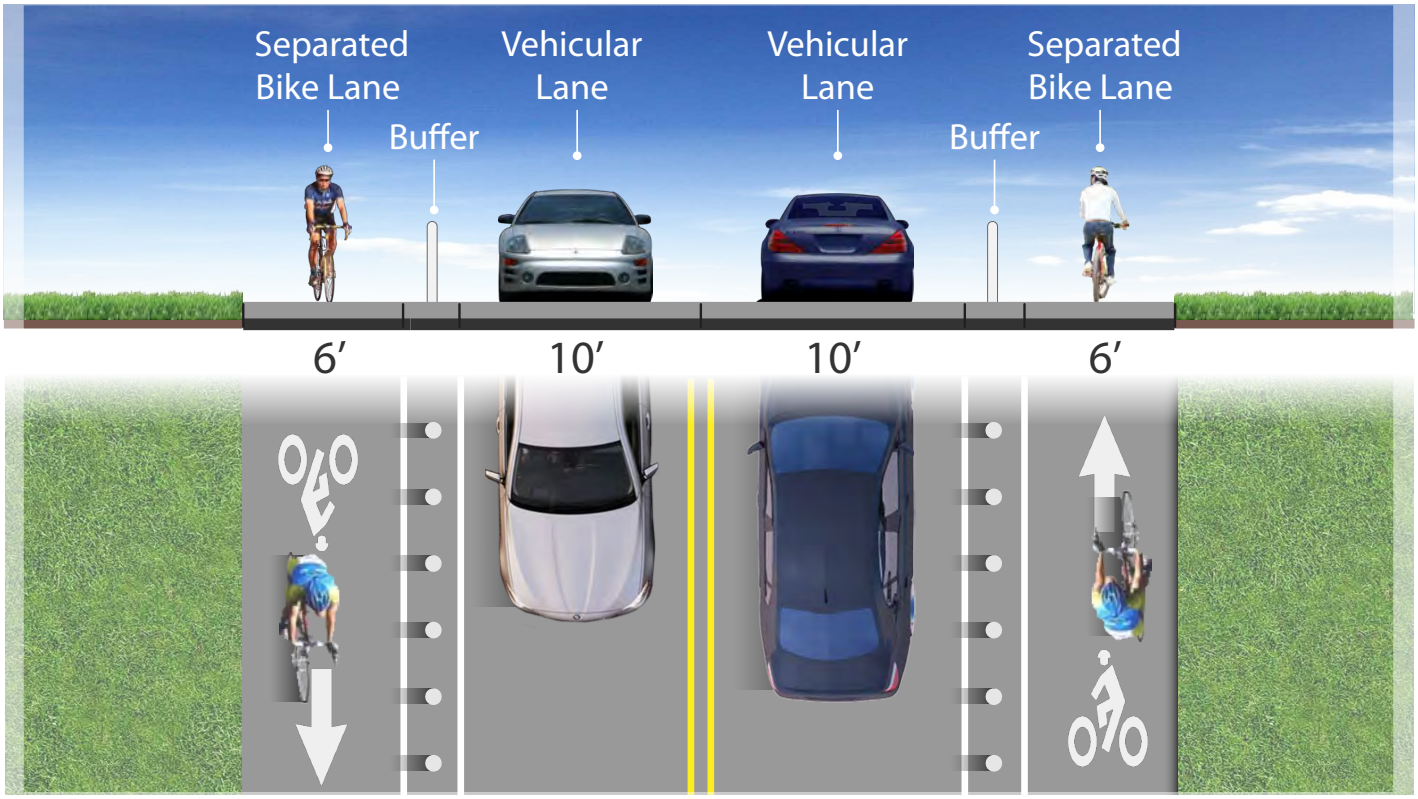
DESIGN GUIDANCE

- AASHTO Bike Guide
- NACTO Urban Bikeway Design Guide

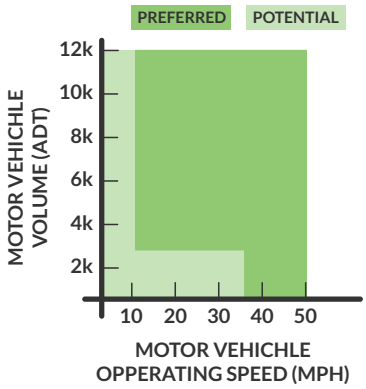
Separated Bicycle Lane

Physically Separated Facility

A separated bicycle lane is an exclusive facility for bicyclists that is located within or directly adjacent to the roadway and that is physically separated from motor vehicle traffic with a vertical element. Separated bicycle lanes are differentiated from standard and buffered bicycle lanes by the vertical element. Separated bicycle lanes may be installed on one side of a street, following the direction of travel, or they can be installed as two-way (bidirectional) separated bicycle lanes that allow bicycle movement in both directions on one side of the street.

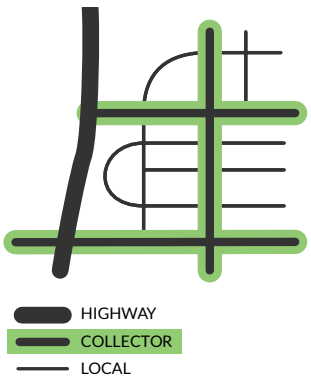


Traffic Speed/Density



- For use on roads with high motor vehicle volumes, and moderate to high-speed motor vehicle traffic.

Street Function



- Preferred Use: on collector streets.

Land Use

- Preferred Use: Urban.

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COMMON NAMES

- Protected bike lane
- Cycle track

BENEFITS

- Compared to other on-street bicycle facilities, separated bike lanes offer the most separation from motorized traffic.
- Provides a more comfortable experience for less-skilled riders.

CONSIDERATIONS

- Transit corridors
- Loading and Unloading
- Accessibility
- Parking
- Maintenance; consider width of the facility and evaluate sweeping and plowing capabilities.

DESIGN GUIDANCE

- FHWA Separated Bike Lane Planning and Design Guide
- NACTO Urban Bikeway Design Guide

BICYCLE DESIGN ELEMENTS

Green Bike Lanes

Colored pavement within a bicycle lane increases the visibility of the facility, identifies potential areas of conflict and reinforces priority for bicyclists in conflict areas. “Based on Interim Approval issued by FHWA in April 2011, contrasting green color pavement may be used in marked bike lanes, and in extensions of bike lanes through intersections and other traffic conflict areas, such as merge areas where turning vehicles must cross through a bike lane” (AASHTO Bike Guide, p. 4-20).

Design Guidance: AASHTO Bike Guide, NACTO Urban Bikeway Design Guide

82.

Intersection Approach Treatments

Designs for intersections with bicycle facilities are intended to reduce conflict between bicyclists and vehicles by increasing the level of visibility, denoting a clear right-of-way, and facilitating awareness with competing modes. The configuration of a safe intersection for bicyclists may include elements such as color, signage, medians, signal detection, and pavement markings. For people traveling in a bicycle lane, the approach to an intersection with vehicular turn lanes can present a significant challenge. Intersection crossing markings and/or dashed pavement lines guide bicyclists on a safe and direct path through intersections and merge areas, such as driveways and ramps. They provide a clear boundary between the paths of through bicyclists and alert motorists to expect and yield to bicycle traffic.

Design Guidance: MUTCD (not Separated Bicycle Lane-specific), NACTO Urban Bikeway Design Guide

83.

Bicycle signalization

1. *Bicycle signal heads*
2. *Signal timing for clearances*
3. *Bicycle detection*
4. *Bicycle push buttons*

Bicycle signals make crossing intersections safer for bicyclists by clarifying when to enter an intersection and by restricting conflicting vehicle movements. Bicycle signals are traditional three lens signal heads with green, yellow and red bicycle stenciled lenses that can be employed at standard signalized intersections.

Design Guidance: AASHTO Bike Guide, NACTO Urban Bikeway Design Guide

84.

Bicycle turning treatments

1. *Two-stage left turn box*
2. *Bike box*

A two-stage left turn box offers bicyclists a safe way to make left turns at intersections. The bicyclist passes partway through the intersection to access the bike box and then waits for the next signal phase for through traffic, which eliminates the bicyclist left turn movement. A bicycle box is a designated area at the head of a traffic lane at a signalized intersection that provides bicyclists with a safe and visible way to get ahead of queuing traffic during the red signal phase.

Design Guidance: NACTO Urban Bikeway Design Guide LANE

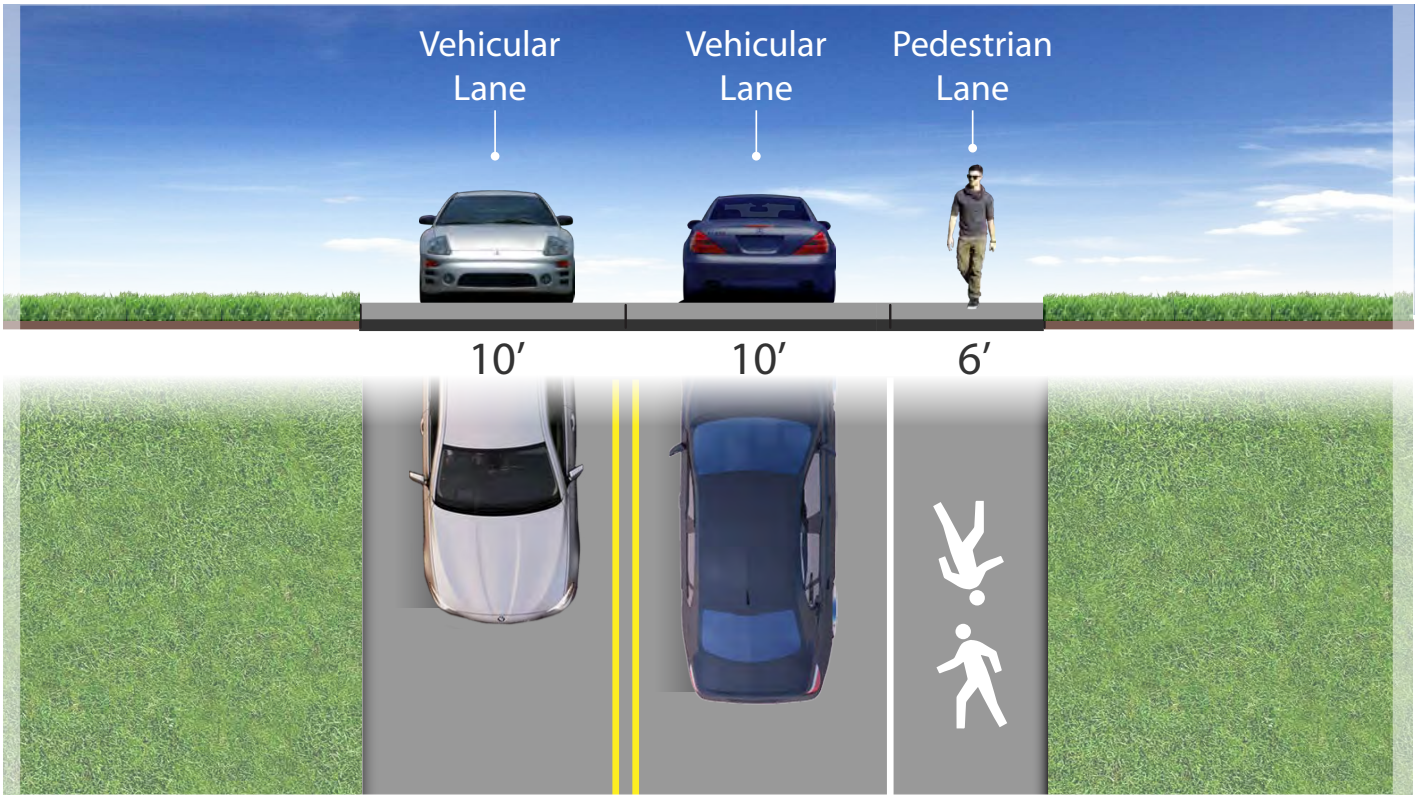

85.


86.

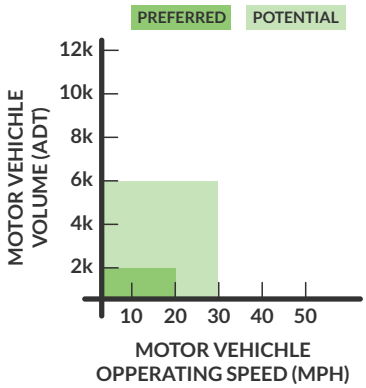
Pedestrian Lane

Visually Separated Facility

A pedestrian lane is a designated space on the roadway for exclusive use of pedestrians. The lane may be on one or both sides of the roadway and can fill gaps between important destinations in a community. They are not intended to be an alternative to sidewalks and often will fill short gaps between other higher quality facilities.

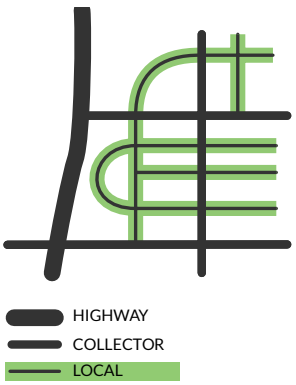


Traffic Speed/Density



- Ideal for streets with low-moderate traffic speed and low-moderate traffic density.

Street Function



- Preferred Use: on local streets.

Land Use

- Preferred Use: for rural communities.
- Potential Use: for suburban communities.

87.

88.

BENEFITS

- Provides interim or temporary pedestrian accommodations on roadways lacking sidewalks.

CONSIDERATIONS

- Detectability by people with vision disabilities.
- Maintenance strategies, such as sweeping and snow removal.

DESIGN GUIDANCE

- FHWA Small Town and Rural Multimodal Networks

PEDESTRIAN DESIGN ELEMENTS

Design Guidance: AASHTO Guide for the Planning, Design and Operation of Pedestrian Facilities.

Raised Crosswalks

Raised crosswalks are marked and elevated pedestrian crossings that are typically three to six inches above street level. This height reduces vehicular speeds and increases the visibility of a person in a crosswalk to a driver. It also improves the line of sight for the person toward an oncoming vehicle. A raised crosswalk can be placed mid-block or at an intersection. High-visibility continental crosswalk markings are preferable to standard parallel or dashed pavement markings.

89.

Pedestrian Refuge Islands

Medians are barriers in the center portion of a street or roadway. When used in conjunction with mid-block or intersection crossings, they can be used as a crossing island to provide a place of refuge for pedestrians. Median pedestrian refuge islands should be provided as a place of refuge for pedestrians crossing busy or wide roadways at either mid-block locations or intersections. They should be utilized on high speed and high volume roadways.


90.

Bulb-Outs

A bulb-out, or curb extension, is a place where the sidewalk extends into the parking lane of a street. Because curb extensions physically narrow the roadway, a pedestrian's crossing distance—and consequently the time spent in the street—is reduced. They can be placed either at mid-block crossings or at intersections.

91.

Pedestrian-Friendly Amenities

Design elements that support a pedestrian-friendly environment include functional street furniture, such as benches and trash cans; pedestrian-scale lighting; and landscaping. Landscaping can be used to create a separation buffer between people walking and motorized traffic. Street trees calm traffic by creating a visual narrowing of the roadway, provide shade and create a welcoming environment for walking.


92.


93.

TECHNICAL SUPPORT AND RESOURCES

Due to the growing interest in active transportation as well as the need for safe accommodations, finding resources to support active transportation projects is increasingly important. This section of the plan elaborates on SPC's role in assisting local governments in planning and programming active transportation elements into traditional and non-traditional projects. It also identifies key state agencies that provide support for active transportation and highlights key funding resources for bicycle and pedestrian projects and programs.

SPC Technical Support and Resources

Project Development and Delivery Guidance

SPC staff provides guidance and technical resources to assist local project sponsors with the steps, resources and best practices for successful project delivery when utilizing state or federal funds. PennDOT Publication 740 gives an overview of the required process for delivering local projects when using these funds. An early understanding of these requirements by local project sponsors helps to streamline the overall process by saving time, reducing omissions and making efficient use of funds.

Mapping and Data Services

SPC's Geographic Information System (GIS) enables staff to provide mapping services and location-specific data to help local communities identify and prioritize areas for active transportation investments, with a focus on eliminating barriers or targeting improvements for areas where demand or propensity for walking and biking is high. SPC also serves as the regional Census data affiliate and can supply accurate, comprehensive data to local governments and community organizations to assist with application development, needs assessments and implementation plans.

Regional Traffic Signal Program

SPC's Regional Traffic Signal Program provides technical assistance to municipalities as well as potential funding to assist in upgrading signal systems in the region.

Technical Support for Active Transportation Initiatives

Other areas where SPC staff can offer technical assistance include:

1. *Provide technical support and planning expertise to help local jurisdictions develop active transportation plans.*
2. *Provide guidance to help local governments plan and conduct walking audits.*
3. *Assist communities with application development for walk- or bike-friendly community designations.*
4. *Provide guidance on planning and implementing Complete Streets policies.*
5. *Facilitate development of local bicycle count programs through the lending of automated counting equipment and training on equipment use and data collection.*
6. *Provide mapping and data services for counties that are interested in developing or refining bike suitability maps.*
7. *Provide technical assistance to communities that are interested in obtaining bicycle counts on trails or bicycle facilities in mixed traffic settings. Staff may also be able to assist in data collection efforts as part of SPC's pilot, non-motorized data collection program.*

PennDOT Connects

PennDOT Connects is an approach that will enhance local engagement and improve transportation-project planning, design, and delivery. Its aim is to help make transportation planning a more collaborative process that supports community goals by ensuring that collaboration with municipal officials happens early, and that each project is considered in a holistic way for opportunities to improve safety, mobility, access, and environmental outcomes for all modes and local contexts.

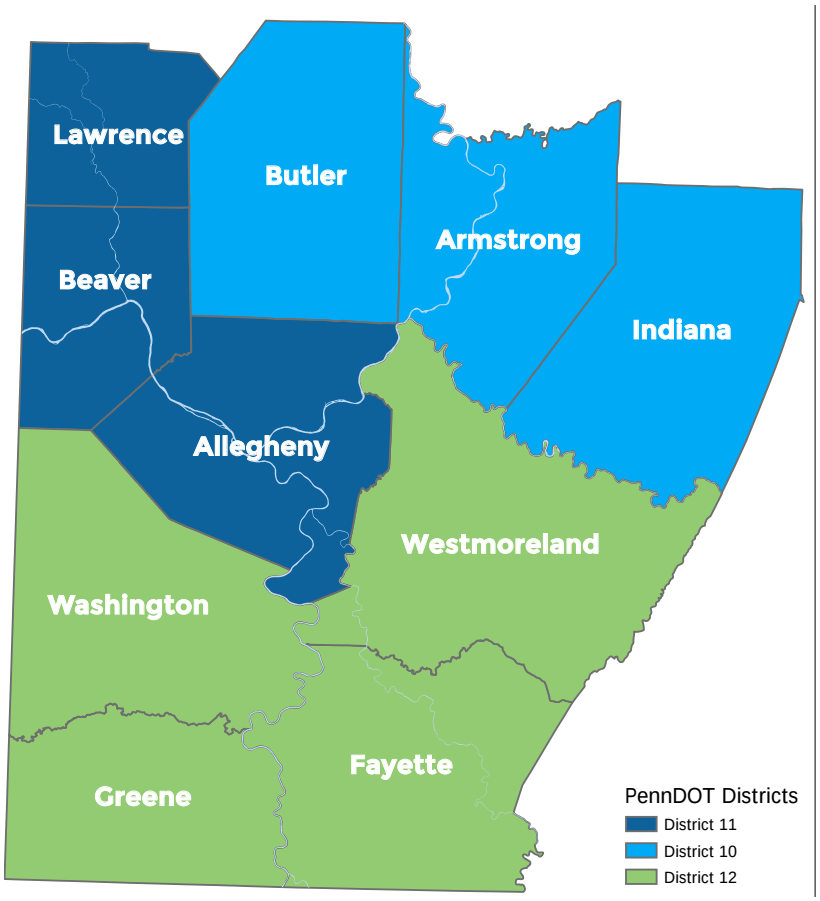
Earlier collaboration will help to ensure that projects meet current and projected community needs as much as possible, and can reduce costly changes further in the project development process. SPC works in partnership with PennDOT to advance this initiative and participates in meeting with local governments to learn what elements may be important to include in the project to support a community's vision.

Local governments must demonstrate the need to include community mobility and related objectives in project scopes. Ideally, decisions should be based, in part, on comprehensive planning, corridor studies, resource management studies, multimodal studies or other related planning studies that demonstrate a need for the desired community features.

https://paconnects.org/index.php?

Click on the map at right to view PennDOT District websites.

PennDOT Districts



FUNDING PROGRAMS

Transportation and Community Funding Programs in Pennsylvania

SPC staff develops and routinely updates a Transportation and Community Funding Programs guide to provide local governments with timely information on resources that can assist with the implementation of a community's shared goals. This resource document includes, but is not limited to, information on bicycle and pedestrian funding opportunities.

https://www.spcregion.org/pdf/smart/Transportation%20and%20Community%20Funding%20Programs,%20Spring%202018.pdf

Funding opportunities include:

1. *PennDOT Multimodal Transportation Fund*
2. *DCED Multimodal Transportation Fund*
3. *DCED Greenways, Trails and Recreation Program*
4. *DCNR Community Conservation Partnerships Program (C2P2)*

U.S. DOT Federal Transit, Highway, and Safety Funds

https://www.fhwa.dot.gov/environment/bicycle_pedestrian/funding/funding_opportunities.pdf

The Federal Highway Administration has updated its table, "Bicycle and Pedestrian Funding Opportunities: U.S. Department of Transportation Transit, Highway and Safety Funds" to reflect changes resulting from enactment of the Fixing America's Surface Transportation (FAST) Act. The table identifies 15 federal funding sources; indicates potential eligibility for bicycle and pedestrian projects; notes basic program requirements; and provides links to specific program guidance. Potential funding opportunities include 402 and 405 funds, which fall under the National Highway Traffic Safety Association (NHTSA).

NHTSA leads education programs to improve motor vehicle and highway safety. Section 402 funding, called the State and Community Highway Safety Grant Program, is available to every state to improve safety issues, including bicycle and pedestrian safety.

Section 405 funds, called the National Priority Safety Programs, are congressional set-asides for states where more than 15 percent of traffic fatalities are bicyclists and pedestrians. Under Section 405, NHTSA awards grants for a range of safety issues. The FAST Act added bicycle and pedestrian safety as one of the program priorities. You can review Pennsylvania's most recent highway safety plan to see how it addresses bicycle and pedestrian safety, and follow up with PennDOT's Highway Safety Office to learn about opportunities for public input into future Highway Safety Plans.

https://www.nhtsa.gov/sites/nhtsa.dot.gov/files/documents/pennsylvania_fy2018_hsp.pdf

SPC-Administered Competitive Funding Programs

SPC administers programs where bicycle and pedestrian projects are often targeted for federal and state transportation funding, such as the Transportation Alternatives Set-Aside Program (TA Set-Aside) and the Congestion Mitigation and Air Quality Improvement Program (CMAQ). SPC has also dedicated a portion of the region's Surface Transportation Program (STP) funding for its Livability Through Smart Transportation (SMART) Program. These programs are highlighted below.

Transportation Alternatives Set-Aside Program

The Fixing America's Surface Transportation Act or "FAST Act" eliminated the MAP-21 Transportation Alternatives Program (TAP) and replaced it with a set-aside of Surface Transportation Block Grant program funding for transportation alternatives. The TA Set-Aside Program provides funding for all projects and activities that were previously eligible under TAP, encompassing a variety of smaller-scale transportation projects such as bicycle and pedestrian facilities, recreational trails, safe routes to school projects and activities, community improvements such as historic preservation and vegetation management, and environmental mitigation related to stormwater and habitat connectivity.

The TA Set-Aside Program provides funding for programs and projects defined as transportation alternatives, including on and off-road bicycle and pedestrian facilities, infrastructure projects for improving non-driver access to public transportation and enhanced mobility, community improvement activities; environmental mitigation; recreational trail program projects; safe routes to school projects; and projects for planning, designing, or constructing boulevards and other roadways largely in the right-of-way of former Interstate System routes or other divided highways.

Eligible types of projects under the TA Set-Aside include:

1. *Bicycle and pedestrian facilities*
2. *Safe routes for non-driver projects and systems*
3. *Construction of turnouts, overlooks and viewing areas*
4. *Vegetation management*
5. *Preservation, rehabilitation and operation of historic transportation structures and facilities*
6. *Preservation of abandoned railway corridors for bicycle and pedestrian trails*
7. *Inventory and control of outdoor advertising*
8. *Archaeological activities*
9. *Environmental mitigation*

Livability Through Smart Transportation (SMART) Program

SPC's SMART Program is intended to encourage sponsors to plan and implement strategies consistent with the policies of the region's adopted long range transportation and development plan as well as local and county comprehensive plans. A Smart Transportation project links transportation investments and land use planning to decision-making, creating transportation facilities that are safe, sustainable, responsive to the needs of all users, and support community planning goals. The program is designed to provide multimodal connections and community livability enhancements beyond traditional asset management-focused projects.

Projects considered for funding should advance and promote the following Regional Smart Transportation Themes:

1. *Linking transportation investments and land use planning*
2. *Supports community goals*
3. *Multimodal*
4. *Partnering*
5. *Safety*
6. *Sustainability*

SPC member county governments, the City of Pittsburgh, and PennDOT Districts 10, 11, and 12 are the eligible applicants to the SMART Program; PennDOT submissions must originate as a result of municipal collaboration from a PennDOT Connects meeting or Scoping Field View. Interested sponsors not mentioned above are encouraged to collaborate with their respective county/City of Pittsburgh planning departments, or PennDOT in order to submit proposals.

94.

Congestion Mitigation and Air Quality Improvement Program (CMAQ)

The federally funded CMAQ program provides funds for transportation projects that ease congestion and contribute to the attainment and maintenance of air quality standards. The program emphasizes cost effective emission reduction and congestion mitigation activities. It is SPC's policy to program CMAQ projects on the Transportation Improvement Plan (TIP) that provide the best air quality benefit for the investment and support two important goals of the federal Department of Transportation: Improve air quality and relieve congestion.

The following are examples of commuter bicycle and pedestrian projects that help achieve the CMAQ program goals:

1. *Bicycle use marketing*
2. *Promotion bikeway*
3. *Bike lane improvements*
4. *Improved bike access to transit*
5. *Pedestrian network improvement*

95.

Regional

ACTIVE

Transportation Plan