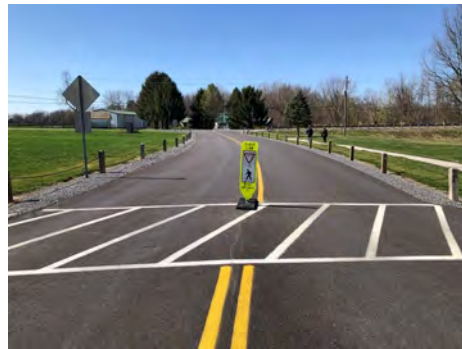


South Middleton Active Transportation Plan



September 3, 2021

Prepared by
McMahon Associates, Inc.



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1 | Project Overview



Introduction

The South Middleton Township Active Transportation Plan (ATP) explores opportunities to expand connections for walking and biking in and around South Middleton Township, Cumberland County, Pennsylvania. This plan builds upon the township's various previous planning efforts to connect trails, enhance parks, and support a healthy and vibrant community.

The plan identifies an active transportation network with a wide range of bicycle and pedestrian facilities to support walking and biking by different users. Strategies to achieve the vision and goals include specific near-term and long-term capital improvements, policy updates, and programs to encourage and raise awareness about walking and biking. This plan will serve as a guide for the township and other partners to provide safe connections between recreational, economic, and cultural destinations and build a active transportation network over time.

In addition to enhancing a community's appeal and the health of its residents, active transportation has a positive impact on a community's economy. According to a 2015 study compiled by the Kittatinny Coalition for Cumberland County, outdoor recreation contributes between \$204.7 million to \$521.5 million to the County's economy, as well as creating up to 6,656 jobs. In addition, up to \$38.9 million in state and local taxes are generated on everything from purchasing equipment to food & lodging.

Active Transportation Defined

Active transportation refers to human-powered transportation, such as walking and biking. People walk and bike for a variety of trip purposes, including trips to work, school, shopping, and for recreation. An active transportation plan identifies strategies to better accommodate walking, and biking in a community. Additionally, many active transportation plans incorporate public transportation, since most people walk or bike to access transit services. Planning for active transportation can provide numerous

community benefits, such as:

- **Increasing safety**
- **Improving public health**
- **Reducing congestion**
- **Improving air pollution**
- **Providing access and mobility for those unable to drive**
- **Supporting the local economy**

South Middleton Township Overview

South Middleton Township is located in south-central Cumberland County, just south of the Borough of Carlisle. The township completely surrounds the Borough of Mount Holly Springs and contains the unincorporated community of Boiling Springs. The township has a mix of rural and suburban areas, with more population concentrated around Carlisle and Boiling Springs.

The township is part of the South Mountain Conservation Landscape, which is an area surrounding the forested uplands of the South Mountain ridgeline as well as the fertile agricultural valleys gently sloping away from the base of the mountain. The area spans Adams, Cumberland, Franklin, and York counties, covering approximately half a million acres. The area is home to several state parks, a state forest, and the Appalachian Trail.

The primary transportation corridors in the township are Holly Pike/Baltimore Pike (S.R. 0034), Old York Road (S.R. 0174), York Road (S.R. 0074), and Forge Road (S.R. 2003). Outside the community of Boiling Springs and the suburban areas around Carlisle Borough, most roadways do not have sidewalks. South Middleton Township is not served by public transportation, but the nearby Borough of Carlisle has weekday bus service through Capital Area Transit (CAT), with a stop approximately one mile from the township boundary.

South Middleton Township has a number of existing regional assets for the active transportation network. The Letort Spring Run and Nature Trail extends from Carlisle Borough into South Middleton Township along a former railroad corridor. The Appalachian Trail cuts through the southern part of the township and through Boiling Springs. The Mason Dixon Trail connects to the Appalachian Trail at Whiskey Springs Road in the southern part of the Township. The Cumberland Valley Rail Trail (CVRT) is also a nearby regional trail with potential connections into the Township's trail network. Additionally, the Yellow Breaches Creek Water Trail follows the Yellow Breaches Creek.



Vision and Goals

Vision

South Middleton Township residents and visitors want to be able to access shops, schools, services, parks, and other recreational resources by walking or biking, and they want to feel safe doing so.

An active transportation network that connects healthy communities and recreational resources and supports safe walking and biking for people of all ages and abilities.

Goals

The following goals were developed with community input and are the focus for strategies to implement the township's active transportation vision.

- **Expand connections between the trail network, recreational resources, residential areas, and commercial areas**
- **Promote recreation / environmental tourism (including agrotourism) and capitalize on Boiling Springs' Appalachian Trail Community designation**
- **Identify high priority sidewalk, trail, and walkability improvements**
- **Complete/Connect Letort Trail through the Township to Mt. Holly Springs Borough and Spring Meadows Park**
- **Expand on-road bicycle opportunities with supportive policies, educational outreach programs, and capital improvements**
- **Provide safe routes to schools**
- **Create a walkable township and pedestrian friendly Boiling Springs**
- **Support town center development along Walnut Bottom Corridor**
- **Expand opportunities for regional multimodal connections to Carlisle Borough and neighboring municipalities**

Who We Are Planning For

Demographics

Many factors influence peoples' transportation decisions. These factors include the physical constraints of their surroundings, how far they need to travel, and their access to reliable transportation.

Quotes from the Future

At the first committee meeting, members were asked what they hoped residents and visitors would say in the future about the active transportation network in South Middleton Township. Listed below are these hypothetical 'quotes from the future.' They provide another expression of the vision for this plan.

South Middleton has done an excellent job of implementing an active transportation network within the Township and beyond.

I enjoyed a great safe bike ride to the park with my child and elderly relative.

South Middleton is the place where you can still find lightly traveled open roads with wider shoulders where you can safely bike.

I don't need to use my car to get to the park or the store.

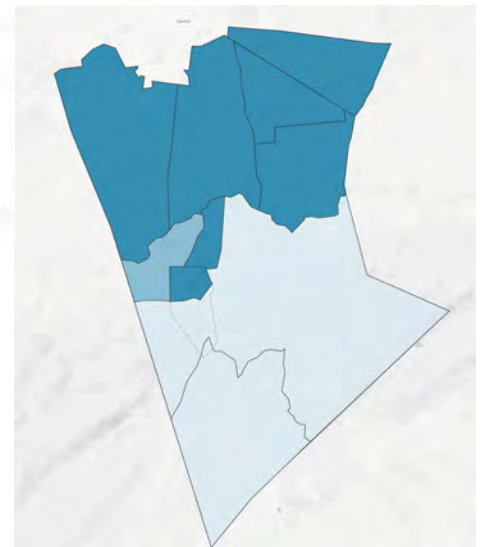
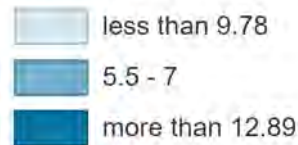
Drivers in South Middleton treat pedestrians and cyclists with respect.

A connected community with more trails supports economic development.

Walkability Index

The US EPA characterizes the ease of pedestrian travel in an area with a Walkability Index. It considers factors such as a mix of employment types and occupied housing, street intersection density, and population density to assign a walkability score. The Walkability Index is a score out of 20; scores closer to 20 indicate that an area is more walkable, while scores closer to 1 indicate that an area is less walkable. The data shows that South Middleton Township's overall walkability score is 7.5, which is not very walkable. However, some areas of the township are more walkable than others; such as Boiling Springs and near Carlisle Borough; as shown on the map below.

Walkability Index



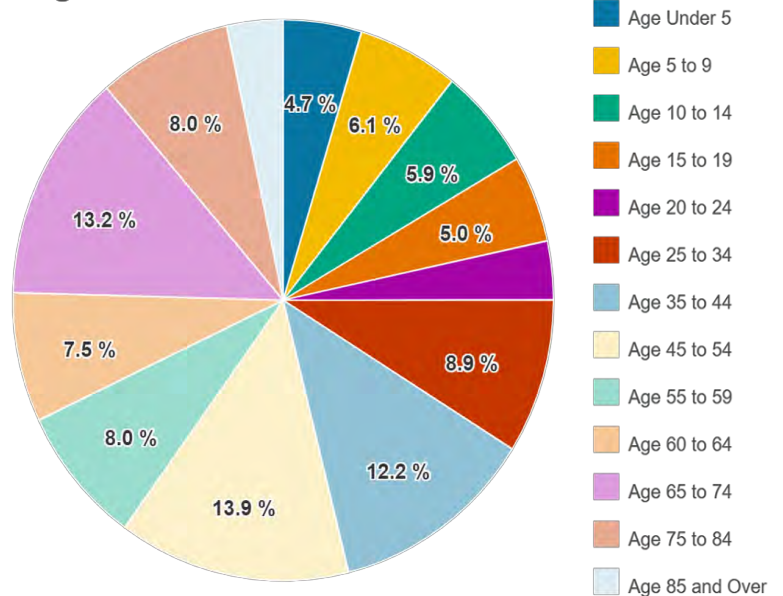
Community Health

It is important to understand the baseline health factors of the community. Maintaining active and healthy lifestyles remains increasingly important in communities across the country. South Middleton Township is no different. Therefore providing opportunities for people to get outdoors for recreation or commuting purposes is a priority for the township, and this active transportation plan outlines strategies to support this goal.

Nearly one-third of South Middleton Township residents are over the age of 60. This is a high percentage as compared to the Cumberland County average of less than 25%. As residents age in place, it is important for individuals to have access to quality recreational opportunities.

The obesity rate and physical health among adults in South Middleton Township is comparable to that of the Cumberland County average. Additionally, the percent of adults that do not participate in physical activities is also comparable to the county average.

Age Totals



mySidewalk.com - Sources: US Census ACS 5-year

Obesity Among Adults

28%
People

South Middleton Township
County Subdivision, Cumberland
County, PA

27.7%
People

Cumberland County, PA

Poor Physical Health Among Adults

12%
People

South Middleton Township
County Subdivision, Cumberland
County, PA

11.6%
People

Cumberland County, PA

No Leisure-Time Physical Activity Among Adults

22.3%
People

South Middleton Township
County Subdivision, Cumberland
County, PA

22.1%
People

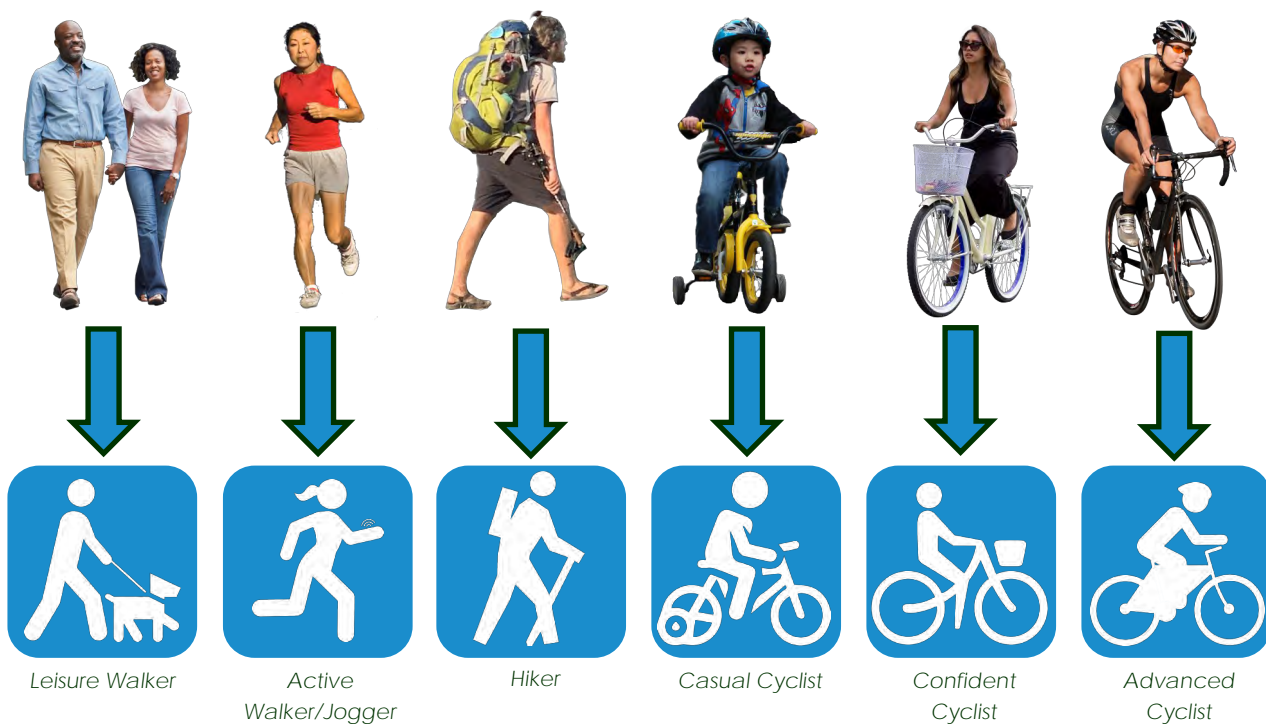
Cumberland County, PA

Sources: CDC BRFSS PLACES 2018

Types of Users

For active transportation planning, it is important to understand the various needs of people who walk and bike. The South Middleton community includes people of all ages with differing physical abilities, differing levels of experience and confidence, and various travel needs. Figure 1 highlights key different types of users for South Middleton’s active transportation network. As indicated, people walk and bike for both recreational and non-recreational use. Some people may be traveling alone and looking for the quickest, most direct route as possible to work. Others, may be traveling leisurely with family members (including pets) and are interested in a more calm and comfortable environment. Levels of confidence and comfort also influences travel choices. For example, some cyclists are more confident biking on roadways with traffic, while others only feel comfortable on a dedicated trail. The township’s active transportation network will consider the different types of user and identify a range of facilities to meet their various needs.

Figure 1: Active Travel Users



Previous Plans & Studies

Local

South Middleton Comprehensive Plan

The South Middleton Comprehensive Plan, last updated in 2007, is a document that serves to guide the township through the process of planning for the future. The plan establishes goals and objectives regarding land use, infrastructure, economic development, and the general character of the Township. The Township is in the process of updating the Comprehensive Plan.

South Middleton Township Official Map

The South Middleton Township Official Map (2016) serves to communicate the locations of planned future public lands and facilities such as streets, trails, parks, and open space. Additionally, it identifies important natural and historical areas. In terms of active transportation, the Official Map includes new trails and new roadways. In particular, it includes the extension of the Letort Trail to Mt. Holly Springs Borough, as well as potential connections between the Letort Trail and other park and recreational facilities. The trail between Spring Meadows Park, Dickinson Farm, Stamy Farm, and Boiling Springs was completed in 2018.

Spring Meadows Master Plan

Spring Meadows Park is a 90 acre Township park located just west of the unincorporated community of Boiling Springs. The existing park will be further developed to include additional amenities such as a ped/bike path, a new playscape, several multi-use fields, and an amphitheater. These upgrades will not only incorporate additional active transportation recreational opportunities within its borders but also serve to make the park a key destination for active transportation users in Boiling Springs and around the Township.

Village of Boiling Springs Livable Communities Plan

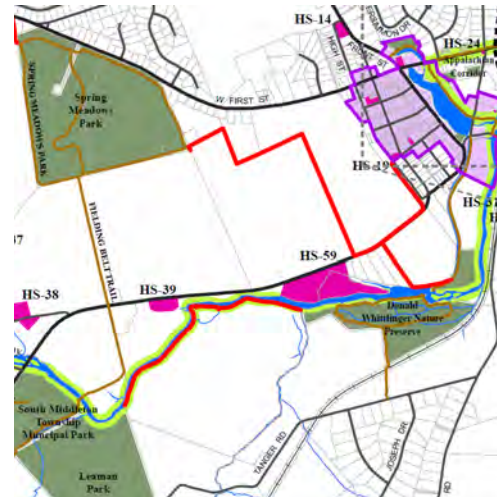
The Village of Boiling Springs Livable Communities Plan serves as a supplement to the Township Comprehensive Plan and involves the development of specific planning activities and goals for the unincorporated area of Boiling Springs. The Plan presents several overall strategies relating to transportation, heritage conservation, and land use and development for maintaining and enhancing Boiling Springs' unique historic character and charm. Among the transportation-related strategies included in the plan are the active transportation goals of enhancing walking and biking safety and opportunities and development of trail connections to surrounding neighborhoods and attractions.

Boiling Springs Sidewalk and Traffic Calming and Feasibility Analysis

South Middleton Township received a Regional Connections Grant from the Tri-County Regional Planning Commission to complete a sidewalk and traffic calming feasibility study. The study built upon concepts identified in the Livable Communities Plan. It included conceptual plans and cost estimates for sidewalk connections in the heart of Boiling Springs and other traffic calming measures. The township is currently developing designs to implement several recommendations from this plan.

Walnut Bottom Corridor Master Plan

The Walnut Bottom Corridor Master Plan was created to outline a framework for future development in the area along Walnut Bottom Road, located in the northwest corner of the Township just south of Interstate 81. The area has seen significant commercial and industrial development over the last few decades, leading to predominately commercial retail developments that is largely automobile oriented. The decline of commercial activity in the area has left some large areas open for development (called 'catalyst sites').



Portion of the Official Map

As part of future development, the Plan calls for investment in active transportation infrastructure in the corridor so that it is accessible by all modes, creating opportunities for more active travel and offering more inclusive communities for low-income households who may be unable to afford a car. In particular, the plan outlines a need for continuous sidewalks, dedicated and continuous bike paths, planted buffer zones, and extension of active travel networks to close existing gaps and improve connectivity with the existing Township trail system.

County & Regional

Cumberland County Comprehensive Plan

The Cumberland County Comprehensive Plan is the primary planning document covering the entire county, and the plan includes discussion of active transportation in multiple contexts. The first of these contexts discusses establishment of an interconnected system of parks, trails, and greenways to provide recreational and transportation needs of residents. The County currently has over 200 miles of trails, but the plan calls for more specific actions including development of a countywide trails plan and incorporation of park, trail, and greenway development into municipal plans and ordinances.

The County Comprehensive Plan also views active transportation infrastructure as a key component of many land uses going forward, including rural residential, suburban residential, downtown business district, and suburban commercial. Lastly, the Plan views active transportation infrastructure as fundamental to achieving the goal of providing a full and complete transportation network for all system users. Strategies outlined by the plan include advocating for inclusion of active infrastructure in area projects implemented by others and identifying and investing in non-motorized transportation networks by the county.

Cumberland County Land Partnerships Plan

The Cumberland County Land Partnerships Plan, last updated in 2013, is a countywide strategy designed to enhance quality of life through protection of existing natural resources and to promote protection of additional resources and development of new outdoor community recreational opportunities. In particular, the plan focuses on preserving prime farmland, protecting natural resources, and ensuring access to parks, trails, and greenways.

In addition to the typical outdoor recreational opportunities provided by parks, trails and greenways are noted as preserving wildlife habitat and biodiversity in addition to providing opportunity for active travel. According to the plan, South Middleton Township has more acres of municipal parkland than any other municipality in the county, and ranks second (behind Shippensburg Borough) in acreage per thousand people, at 19.2 acres per thousand. The Land Partnerships Plan explicitly notes the presence and importance of the LeTort Spring Run Nature Trail and the Appalachian Trail, which pass through South Middleton Township. The plan discusses opportunities for trail expansion of the LeTort Spring Run Nature Trail and other trails within the county.

CVRTC NeWPeC Feasibility Study/Master Plan

The NeWPeC Feasibility Study/Master Plan describes the extension of the Cumberland Valley Rail Trail from Newville Borough to Carlisle Borough (passing through West Pennsboro Township). The intent of this study was to convert an abandoned railway into a trail that will serve recreational and non-motorized transportation needs and to identify trail development opportunities outside the corridor to provide access.

The Cumberland Valley Rail Trail is managed by the Cumberland Valley Rails to Trails Council (CVRTC), a private, non-profit, volunteer organization established in 1990. The existing multi-use trail utilizes the former Cumberland Valley Railroad from Shippensburg Township Park to the Borough of Newville over a distance of about 9 miles. CVRTC purchased an additional 101.15 acres of former railroad bed in 2011 on which to construct the extension. The plan details existing conditions, issues related to the trail's management, financing, operations and maintenance, and issues and opportunities that would influence the trail's development and success, as well as providing recommendations regarding all of these topics.

HATS Regional Bicycle and Pedestrian Study

The Harrisburg Area Transportation Study (HATS) is the metropolitan planning organization for Dauphin, Cumberland, and Perry counties, and is responsible for regional transportation planning. The Bicycle and Pedestrian Study was launched as part of the 2040 Regional Transportation plan and aims to build communication and collaboration through the study process, identify and analyze broad issues and opportunities for the region, and together develop a cohesive direction and specific steps to help align efforts of the region's many communities.

South Middleton Township's Active Transportation Plan will help to implement the goals identified in the HATS Regional Bicycle and Pedestrian Study:

1. **Planning:** Establish methods to identify and prioritize active transportation improvements.
2. **Infrastructure:** Improve the region's active transportation network connecting people, communities, and destinations for both transportation and recreation.
3. **Culture:** Implement education, enforcement, and encouragement initiatives targeting multiple audiences to foster a supportive climate for users of active transportation modes.
4. **Safety:** Reduce crashes involving pedestrians and cyclists through infrastructure improvements and educational efforts.
5. **Health:** Partner with health-related organizations and communities to increase active travel for wellness and disease prevention.
6. **Partnerships:** Create cooperative partnerships between public, private, and non-profit organizations to coordinate efforts for greater impact.

Letort Regional Trail/Greenway Feasibility Study

The Letort Regional Trail/Greenway Feasibility Study was prepared for the Letort Regional Authority, an organization whose goal is to protect Letort Spring Run. This study examined the possibility of creating a regional trail system linking the existing Letort Spring Run NatureTrail with opportunities in the Borough of Carlisle, South Middleton Township, North Middleton Township, and Middlesex Township. The study recommended moving forward with implementation and provided key steps, which include obtaining buy-in from participating municipalities (including South Middleton Township), obtaining funding, and constructing segments of the trail. The plan recommends continued development of the trail in South Middleton Township to connect to the Borough of Mt. Holly Springs, Boiling Springs, and other valuable assets within South Middleton. The plan also recommends creation of a signing system throughout all study area municipalities to better identify the trail system.

Ongoing Efforts

Concurrent with developing this active transportation plan, South Middleton Township is working the following related plans and capital improvement projects:

- Walkable Boiling Springs improvements, including various phases of sidewalks connections, enhanced crosswalks, and traffic calming
- Spring Meadows Park pedestrian crossing
- Letort Trail extension: Spring Garden Street to Heisers Lane
- Marsh Drive Loop Trail: Right-of-Way
- Comprehensive Plan update
- Park Drive Parks Master Plan for South Middleton Township Park, Leaman Park, and Yellow Breeches Park

Stakeholder Involvement

Public Involvement Strategy

The public involvement strategy for the Active Transportation Plan was shaped by the COVID-19 Pandemic. Limits on public gatherings required an approach that focused on virtual community engagement efforts. Virtual involvement activities included hosting virtual meetings with township staff and the steering committee. Also, an online interactive map was developed to solicit for public comment and input regarding the plan. Updates regarding the plan were provided to the public at regular Board of Supervisor Meetings and in the Township newsletter.

Steering Committee

South Middleton Township identified an enthused, knowledgeable, and energetic group of individuals to serve on the steering committee. The steering committee met twice during the course of the project to provide feedback that the project team used to develop the Active Transportation Plan.

- **Steering Committee Meeting #1:** March 24, 2021—Vision and Goals, Existing Conditions, Active Transportation Toolbox
- **Steering Committee Meeting #2:** July 21, 2021—Draft Active Transportation Network and Draft Plan

Interactive Map

An online interactive map was created to solicit input from the community about the issues and opportunities related to active transportation in South Middleton Township. Over 70 public comments were received on the map. The comments are listed in Appendix A. The project team used the public input from the interactive map and input from the steering committee to identify potential connections for the Active Transportation Network and other improvements to enhance walking and biking in South Middleton.

Draft Active Transportation Plan

A draft of the Active Transportation Plan was presented at a regularly scheduled Board of Supervisors meeting on August 12, 2021. This presentation served as an opportunity for the public and elected officials to review draft materials and provide input. The plan was also shared and discussed with the Planning Commission and the Parks and Recreation Board. Additionally, the draft Active Transportation Plan was posted on the township website and available for review at the township building for a two-week period. Community members were encouraged to submit their comments via email to the township. Twenty individuals provided comments on the draft plan. Comments received were reviewed and incorporated into the final Active Transportation Plan.

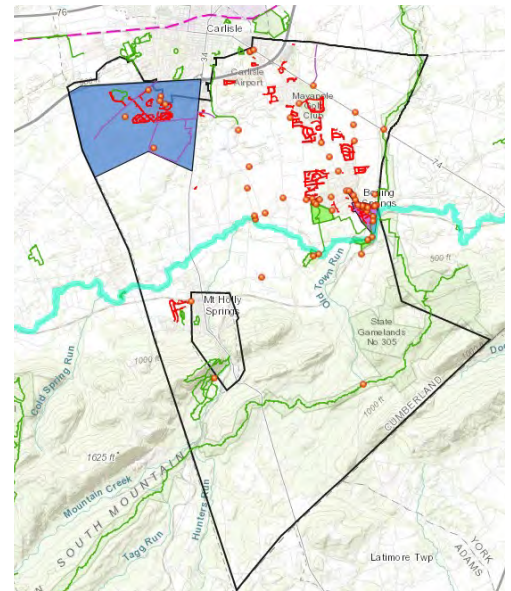
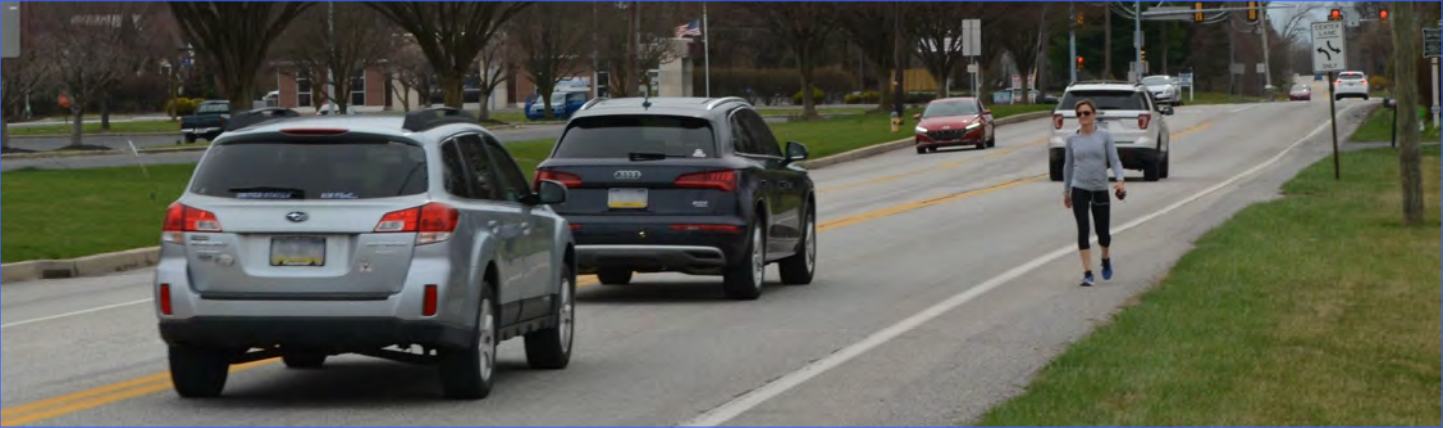


Image of Interactive Map

Orange Dots Represent
Comments Received

2 | Existing Conditions



Introduction

The existing active transportation network in South Middleton Township includes sidewalks, paths, hiking trails, multi-use trails, roadways, as well as a water trail along the Yellow Breeches Creek. The Existing Conditions Map depicts the general location of the existing infrastructure for walking and biking and highlights several key destinations for active transportation trips. This chapter further describes some the existing conditions that impact walking and biking, including key considerations and barriers.

Key Destinations

South Middleton Township has a range of land uses with clusters of key destinations for walking and biking trips, particularly in the northern half of the township. Residential neighborhoods are concentrated south of Carlisle, surrounding Mt Holly Springs, and surrounding Boiling Springs (including along the Forge Road corridor). Residents in these areas are within walking and biking distance of many key destinations, including schools, parks, and shops. Agriculture is the primary land use in the central part of the Township and the southern part of the township includes state game lands, a state forest, and other preserved and forested land. Listed below and highlighted on the Existing Conditions Map are several key destinations for active transportation trips in the township.

- **Villages, Town Centers, and Boroughs with retail shops and restaurants**—Boiling Springs, Walnut Bottom, Mt. Holly Springs, and Carlisle
- **Trails**—Letort Trail, Fielding Belt Trail, Appalachian Trail, Mason Dixon Trail, Cumberland Valley Rail Trail, Yellow Breeches Water Trail
- **Parks, Preserves, Cultural and Recreation Resources**—The Bubble and Children’s Lake, Craighead House, Leaman Park, Michuax State Forest,



Mount Holly Marsh Preserve, Seven Gables Park, Spring Meadows Park, South Middleton Township Park, Wittlinger Preserve, Yellow Breeches Park

- **Schools**—W.G. Rice Elementary, Iron Forge Elementary, Yellow Breeches Middle School, and Boiling Springs High School



Roadway Network

Overview

South Middleton Township has approximately 150 miles of public roadways. Of these, the Township is responsible for 114 miles, and the remaining 36 are part of the state highway system and maintained by PennDOT. A portion of Interstate 81 (I-81) runs through the northern part of the township with five interchanges located along the township's border. While I-81 is an important asset for regional mobility, it is a barrier for bicycle and pedestrian connections, particularly between South Middleton Township and Carlisle. There are a limited number of roadways that cross I-81. Those that do have high traffic volumes and are often at interchanges. All go under I-81 at underpasses or bridges that limit their width.



Walnut Bottom Road, Holly Pike (S.R. 34), Park Drive, Petersburg Road/Whiskey Springs Road, Old York Road (S.R. 174), Forge Road, and York Road (S.R. 74) are key corridors connecting various parts of the Township. With the exception of Walnut Bottom Road, these corridors typically consist of two lane rural roadways, with few traffic signals and speed limits over 40 MPH, with lower speed limits in more densely populated areas around Boiling Springs, Mt Holly Springs Borough, and Carlisle Borough. Walnut Bottom Road is a more densely developed commercial corridor with retail centers, a hospital, and industrial land uses. Given the limited and rural roadway network in the township, some of the key corridors are often used for walking, biking, and driving.

Traffic Volumes

Based on data from PennDOT's Traffic Information Repository (TIRe) available in 2021, the most heavily traveled roadway within the township (aside from I-81) is Holly Pike (S.R. 34) between Carlisle and Mt. Holly Springs, carrying approximately 10,000 vehicles per day. Within the Township, York Road (S.R. 74) carries approximately 9,000 vehicles per day, while Walnut Bottom Road and Allen Road all carry approximately 6,000 vehicles per day. Carlisle Rd. (S.R. 34 south of Mt. Holly Springs), Forge Road, Old York Road (S.R. 174), and Baltimore Pike (S.R. 94) carry 3,000-4,000 vehicles per day. These traffic volumes are based on traffic counts collected regularly by PennDOT and adjusted based on growth factors to the current year. For roadways with higher traffic volumes, providing dedicated and separated facilities for walking and biking is preferred.

Crash History

This study reviewed reportable crashes involving pedestrians and bicycles in PennDOT's Pennsylvania Crash Information Tool for the five year period

between 2016-2020. Additional crashes involving pedestrians and bicycles in may have occurred in the study area but were not reported to PennDOT. However, the reportable crashes tend to roughly represent all crashes including non-reportable crashes (crashes which do not result in injury or towing of a vehicle). PennDOT's data show that there were zero crashes involving bicycles or pedestrians during the analysis period. The locations with the most crashes of any type (outside of the I-81 corridor) in South Middleton Township were the intersection of Old York Road (PA 174) / Holly Pike (PA 34) and the intersection of Old York Road (PA 174) / Forge Road.

People walking or riding bicycles are the most vulnerable roadway users. According to research by the AAA Foundation for Traffic Safety, pedestrians' risk of being fatally injured in a crash increases drastically as vehicle speeds increase.

Existing Active Transportation Network

The existing active transportation facilities are highlighted on the Existing Conditions Map and further described below.

Sidewalks

Many roads within the Township do not currently have sidewalks. Some newer housing developments along Forge Road and in the areas near Walnut Bottom Road have sidewalks, as do some parts of Boiling Springs. In general, the sidewalk network is discontinuous in nature, and not completely compliant with the Americans with Disabilities Act. Through the Active Transportation Plan process, an inventory of existing sidewalks within the township was developed using a combination of aerial imagery, streetview imagery, and local knowledge of the network. Based on the inventory, there are over 57 linear miles of sidewalks in South Middleton Township.

Trails

There are approximately 28 miles of existing trails within South Middleton Township. The existing trails include a combination of regional trails that extend beyond the township's borders and local trails, which are mainly within township parks and open space areas.

Letort Spring Run Nature Trail

The Letort Spring Run Nature Trail is an improved multi-use trail that currently begins near Lambertson Middle School in Carlisle Borough and stretches into South Middleton Township, running along Letort Spring Run before coming to an end at an intersection with South Spring Garden Street for a total distance of approximately 2.5 miles. The township is actively working to extend the Letort Trail south to Mt. Holly Springs Borough.

Appalachian Trail

The Appalachian Trail is a hiking and walking trail that stretches through the entire Appalachian Mountain range from Georgia up to Maine over a distance of approximately 2,200 miles, and which passes through South

Edith (Edyie) Rob, a South Middleton Township resident and active member of the Boiling Springs community, died on July 2, 2021 after being hit by a car while riding her bike on a road in nearby Monroe Township. Safety for bicyclists and pedestrians is a critical community concern to prevent future tragedies.

Existing Active Transportation Inventory

Sidewalks = 57 linear miles

Trails = 28 linear miles

Middleton Township. The trail enters the Township from the southwest along the South Mountain Ridge before turning north just south of Boiling Springs. The trail passes through the village and continues northward into Middlesex Township. Several parking areas within the Township provide access to the trail. The Appalachian Trail Conservancy, the organization responsible for maintaining and promoting the trail, has its Mid-Atlantic Regional Office in Boiling Springs. The Mid-Atlantic Regional Office is responsible for the trail within Pennsylvania, Maryland, New Jersey, New York, and West Virginia.

Mason Dixon Trail

The Mason Dixon Trail's western terminus and connection to the Appalachian Trail is located at Whiskey Springs Road in the southern portion of the township. Overall, the 199 mile long trail connects the Appalachian Trail with the Brandywine Trail. Within South Middleton, the Mason Dixon Trail currently utilizes and follows Whiskey Springs Road south to the township border and continues as an on-road facility. However, plans are underway to relocate this section of the trail and provide an off-road facility between the Appalachia Trail and Pinchot State Park.

Local Trails

In addition to the trails already noted, several small trails exist within the South Middleton Township Parks. Spring Meadows Park and South Middleton Township Park, both near Boiling Springs, contain a combined four miles of pedestrian trail, including a one mile connecting trail. Seven Gables Park (which is shared with the Borough of Carlisle), Wittlinger Nature Preserves, and The Bubble all include pedestrian trails of one mile or less.

Additionally, a short pedestrian trail has been constructed surrounding UPMC Carlisle, a large hospital complex along the Walnut Bottom Road corridor.

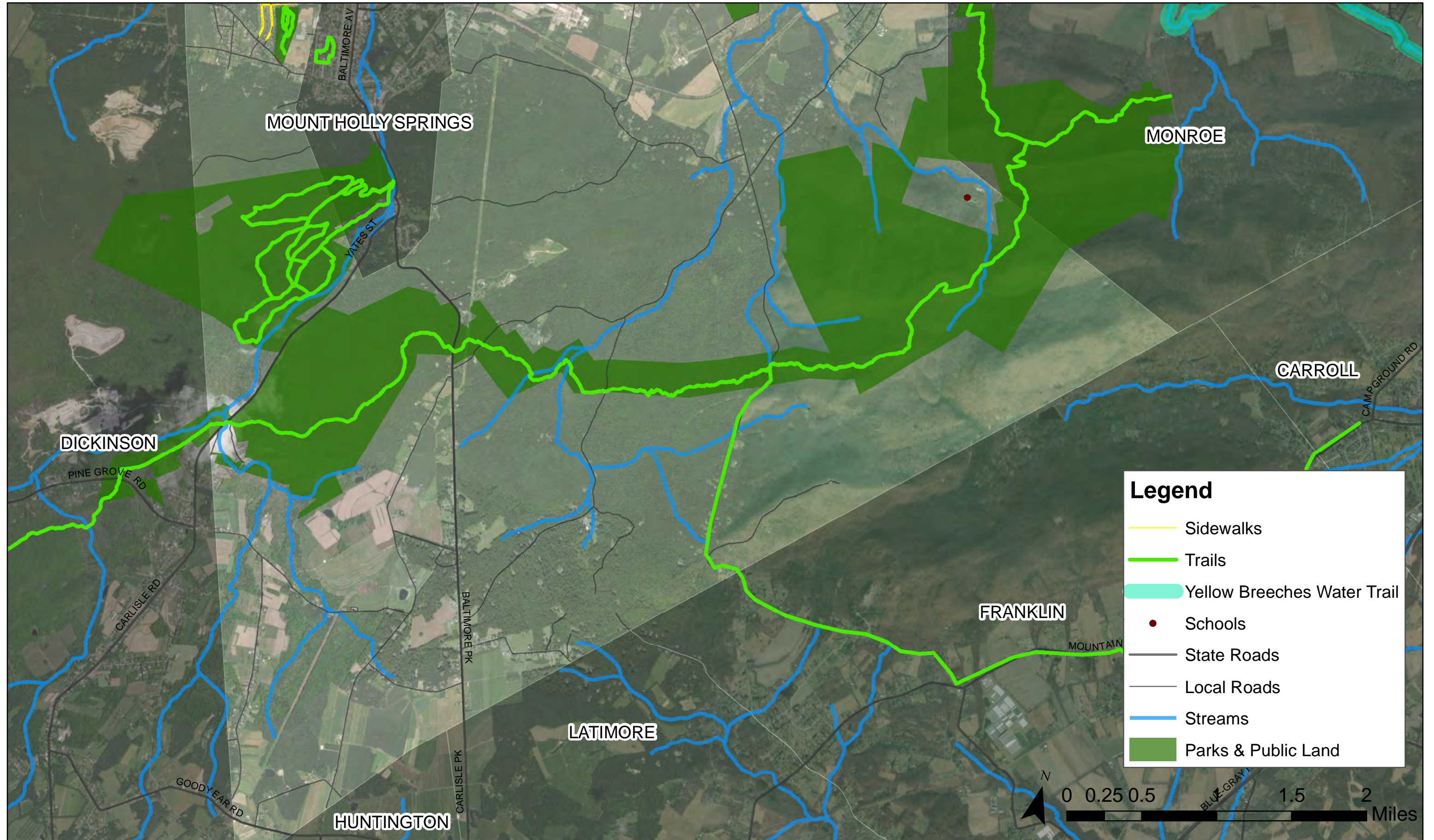
On-Road Cycling

There are no bicycle lanes or other dedicated facilities for on-road cycling in the township. However, recreational on-road cycling is a popular pastime in South Middleton for both residents and visitors. Many of South Middleton's roadways provide sufficiently low traffic volumes beautiful scenery that many on-road cyclists find attractive. Due to the rural character, and resulting lack of public transportation options, most residents of South Middleton are dependent on a personal automobile. Those without access to an automobile are left with on-road cycling as the only feasible alternative to reach destinations too far to walk.

South Middleton Township Active Transportation Plan

Existing Features





Key Considerations

Based on analysis of existing conditions, discussions with township staff and the steering committee, and public input, several key considerations for planning an active transportation network to serve the community needs in South Middleton Township emerged.

Connectivity

While South Middleton does have some dedicated active transportation infrastructure, there are many locations where a sidewalk or trail ends before providing a complete connection. The township's existing active transportation network is disconnected.

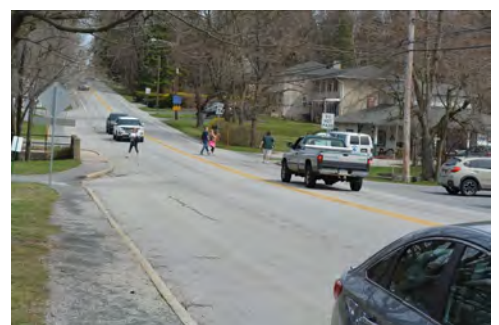
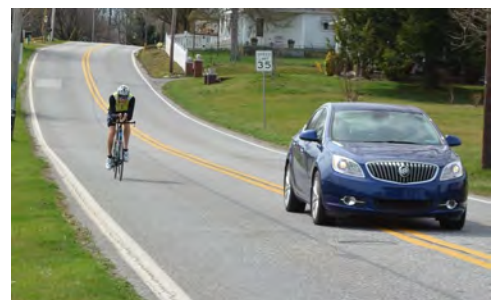
The township's sidewalk network is very limited and most roadways within the township do not have sidewalks. The existing sidewalks are primarily provided within residential developments and do not connect to any destination outside of the development. There are short segments of sidewalks along Walnut Bottom Road, but there are not continuous connections between retail and other destinations. The existing sidewalks in the village of Boiling Springs cover only a small section of the village and are narrow and disjointed. The lack of connected sidewalks impacts safety, particularly for students walking to school.

Furthermore, while there are some multi-use trails, the township is still working to complete trail connections. For example, the Letort Trail is a north-south trail spine through the central part of the township and has the potential to connect Carlisle and Mt Holly Springs through South Middleton Township. The trail currently terminates at Spring Garden Street, but plans are underway to extend the trail south to Heisers Lane. Building future trail segments will likely require coordination with property owners to secure easements or right-of-way. In addition, there is interest and demand for connecting the Letort Trail with other parks and to residential communities, so residents can access the trail without using a car.

The Yellow Breeches Creek is a recreational asset and important environmental resource. The water trail and greenway are a destination for walking and biking trips. However, the creek can be a barrier for the township's connected trail network. For example, extending the Letort Trail south to Mt. Holly Springs will require crossing the Yellow Breeches Creek. Additionally, the Yellow Breeches limits access between Boiling Springs and the Wittlinger Nature Preserve.

While cycling on public roadways can help to provide connections between some destinations, there are currently no dedicated on-road cycling facilities in the township. Many of the rural roadways have no shoulders or narrow shoulders, so cyclists and motorists must share travel lanes. Due to the limited roadway network, key corridors for driving are also key corridors for walking and biking and tend to have higher traffic volumes and speeds. These conditions impact the safety and comfort for on-road cycling.

Construction of additional sidewalks, trails, on-road bicycle facilities, and other amenities will help to create a more connected active transportation network and support walking and biking in the township.



Safety

Multiple members of the steering committee raised issues related to safety for all roadway users, but especially for on-road cyclists. There is a general feeling that on-road cyclists are not respected by motorists. Some otherwise suitable corridors feel unsafe for cycling due to higher volumes and speeds of motor vehicle traffic. Roadways with shoulders too narrow for cycling force bicycle traffic into the travel lane, which creates safety issues for both cyclists and drivers. Horizontal curves, vertical crests, and steep topography adjacent to the roadway pose additional safety concerns. Additionally, it is not feasible or desirable to widen many of the roadways. Targeted improvements, traffic calming, signage, and education for all roadway users are strategies to enhance safety for on-road cycling.

Pedestrian and trail crossings are another priority safety concern. There are a number of locations where trails cross roadways or where pedestrians must cross a roadway to reach a key destination. The township is actively working on plans to improve Appalachian Trail crossing and connection in Boiling Springs, as well as providing a crossing of Old York Road (S.R. 174) near Woodburn Drive to connect residents with Spring Meadows Park. Pavement markings, signage, flashing warning devices, and traffic calming are examples of strategies to increase the visibility of crosswalks and trail crossings.

Community

South Middleton Township is a destination for recreational activities in the region. The township includes a cluster of national, regional, and local recreational assets. As such, strong demand and interest for bicycle and pedestrian connections exists in the township. Serving the unique needs of different user types may be a challenge. However, the community is eager and supportive of opportunities to remain healthy, active, and vibrant.

There have been numerous previous planning efforts to address specific walking and biking issues in South Middleton Township. These plans need to be considered comprehensively to identify a cohesive path toward implementation for the township. Additionally, some of the previously identified improvements to the network need further evaluation before the township can prioritize implementation. As the active transportation network is expanded, it will be important for the township to keep residents and community members informed of new connections and opportunities for walking and biking.



3 | Active Transportation Network



This chapter presents a vision for developing a connected active transportation network in South Middleton Township. This plan provides a path forward to continually expand the active transportation network by building upon the foundation of existing facilities and connections identified in previous plan. This chapter includes maps, descriptions, and other graphics to highlight capital improvements and strategies for creating a complete active transportation network in South Middleton Township.

Active Transportation Toolbox

Various transportation infrastructure features, also known as facility types, may be considered to improve active transportation connections in the South Middleton Township. Each of these facility types serve a different purpose to enhance the multimodal network and serve the transportation needs of all individuals, regardless of transportation mode.

The Active Transportation Toolbox presented on the following pages is presented in several different categories. Each category is based on the type of improvement appropriate given the local context.

- Off-Road Facilities
- On-Road Facilities
- Bicycle and Pedestrian Crossings
- Access Management
- Bicycle Amenities
- Traffic Calming
- Streetscapes
- Wayfinding

The toolbox includes a brief description and illustrative photo for each facility type. For some facilities, additional information is provided regarding design guidelines and local examples.

These facility types are used to describe the potential connections identified in the Active Transportation Network. The toolbox includes a broad range of types of facilities to respond to the needs of different users and to reflect the context of the community. The toolbox can be useful beyond this report as a guide for the township to determine the appropriate facility type given unique local circumstances and user needs.

Off-Road Facilities

Sidewalk



Description: Walkway parallel to the road that is intended for use by pedestrians, often with numerous access points to adjacent land uses. The walkway is typically physically separated from the roadway with a curb and/or verge. The verge may contain grass, vegetation, pavers, and sometimes street trees.

Surface Materials: Concrete, Brick, Pavers

Dimensions: 5 feet wide (minimum)

The verge, when provided, may range in width and 4 feet as a typical width.

Local Example: Various Locations

Multi-Use Trail



Description: A combined bikeway and walkway that is designed for shared use by bicyclists and pedestrians of all abilities, as well as other non-motorized modes of transportation. Trails along or adjacent to a roadway are physically separated from vehicular traffic by a verge, fencing, or other barrier.

Surface Materials: Asphalt, Crushed Stone

Dimensions: 10-12 feet wide (8 feet is permissible in certain situations)

When a trail is adjacent to a roadway, a 5 foot wide verge is recommended between the edge of the shoulder and the trail. If this width is not feasible, a suitable physical barrier is recommended.

Local Example: Letort Spring Run Trail; Fielding Belt Trail; Spring Meadows Park trails

Improved Path



Description: Walkway for use by pedestrians of all abilities. Improved paths may be through or adjacent to developed or undeveloped land.

Surface Materials: Asphalt, Crushed Stone

Dimensions: < 8 feet wide (6 feet typical)

Local Example: UPMC Carlisle Campus path; Summerbridge paths along Eastgate Drive and Rockledge Drive

Off-Road Facilities (Continued)

Natural Path



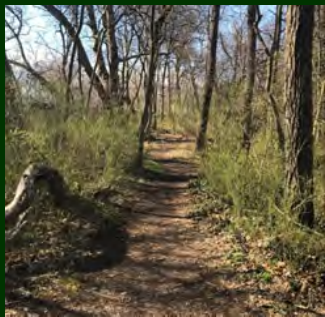
Description: Walkway for use by pedestrians, typically for recreation purposes. Natural paths are often through or adjacent to undeveloped land.

Surface Materials: Mowed grass, Woodchips, Dirt

Dimensions: < 8 feet wide

Local Example: Wittlinger Preserve (Photo credit: Cumberland Valley Visitors Bureau)

Hiking Trail



Description: Walkway that typically follows the natural landscape and are used for short or long distance hiking for recreation. Hiking trails are typically identified with trailblazers or signs and a worn path that is generally clear of vegetation. Hiking trails can include dirt, rocks, and steep slopes.

Surface Materials: Dirt, Rocks, Grass

Dimensions: < 6 feet wide (typical)

Local Example: Appalachian Trail; Mount Holly Marsh Preserve Trails

Mountain Bike Trail

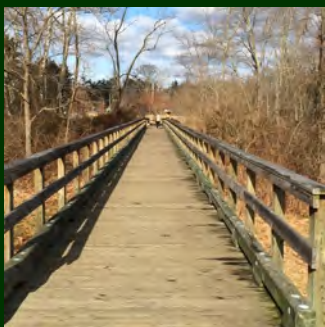


Description: Bikeway that typically follows the natural landscape and are used for recreational mountain biking. Mountain Bike Trails typically include rocks, washouts, ruts, loose sand or gravel, roots, and steep slopes. They may be worn into the natural landscape or introduce obstacles specifically constructed to challenge mountain bikers.

Surface Materials: Dirt, Rocks, Grass

Local Example: Michaux State Forest Mountain Bike Trails

Boardwalk



Description: Elevated walkway that is constructed as a series of low-height bridges through sensitive areas with seasonably variable water depths or low strength soils, such as wetlands. Boardwalks typically include a curb or handrail along at least one, often both, edges.

Surface Materials: Wood, Wood Composite, Plastic Composite, Concrete (for decking)

Dimensions: 6 feet—10 feet wide (typical)

On-Road Facilities

Paved Shoulder



Description: A portion of the roadway adjacent to the travel lane that can be enhanced with signage, striping, or coloring to serve as functional space for bicyclists and pedestrians to travel, particularly when other dedicated facilities are not feasible.

Options: Provide a striped buffer area to separate the vehicular travel lane and the shoulder.

Dimensions: 4 feet wide (minimum); Provide greater width based on feasibility, traffic

Shared Travel Lane (Sharrow)



Description: A roadway with signage and pavement markings to indicate the use of a travel lane by both bicycles and motor vehicles. Pavement markings may include a “sharrow,” which is a bicycle symbol with two chevron arrows denoting the direction of travel.

Bicycle Lane



Description: A portion of the roadway that has been designated by striping, signage, and pavement markings for the preferential or exclusive public use by bicyclists. Bicycle lanes are located directly adjacent to motor vehicle travel lanes and operate in the same direction as motor vehicle traffic.

Dimensions: 5—6 feet wide (5 feet minimum)

Local Example: High Street & Hanover Street (Carlisle)

Buffered Bicycle Lane



Description: A bicycle lane with a striped buffer area that separates the vehicular travel lane and the shoulder used for the bicycle lane.

Dimensions: 2—3 feet wide buffer (2 feet minimum) plus bicycle lane

On-Road Facilities (continued)

Bicycle Boulevard



Description: Design treatments to offer priority for bicyclists operating within a roadway shared with motor vehicle traffic. Pavement markings, such as sharrows, and signage make users aware of the priority for bicycle travel and provide wayfinding. Can include traffic calming, access management, and other strategies to create a safe and low-stress environment for biking.

Places to Use: Local residential roadways, typically in a small town context

Yield Roadway



Description: A narrow roadway without pavement markings that is intended to support walking, biking, and driving in the low-speed travel way. These roads serve bi-directional traffic with no pavement markings, but their narrow design encourages lower speeds.

Dimensions: 12—20 feet wide roadway

Places to Use: Roadways with low volumes and low speeds

Bicycle Route



Description: Roadways designated with wayfinding signs for bicycle travel shared with motor vehicles. They may include one of the above facility types, but are not a facility type in themselves. Some bicycle routes are designated for long distance travel.

Bicycle and Pedestrian Crossings

Marked Crosswalk



Description: Pavement markings designating a location for pedestrians to cross a road, often connecting sidewalks, paths, or multi-use trails. Crosswalks must be a minimum of 6 feet wide. High visibility crosswalks, also known as continental design, are most visible to motorists.

Decorative Crosswalks



Description: Special paving treatments for crosswalks, which can include brick/pavers, colored or stamped asphalt, or thermoplastic pavement markings. Decorative crosswalks can be designed to reflect the unique character or identity of an area or neighborhood.

Raised Crosswalk



Description: Marked and elevated areas that are an extension of the sidewalk at mid-block locations or intersections. They can be used to increase pedestrian safety, calm traffic, and add to the community character. When used for traffic calming, they are most effective when placed in series. They may be constructed of asphalt, brick, or stone pavers.

Mid-Block Crosswalk



Description: A crosswalk that is not located at an intersection. Additional warning devices for drivers are required to increase pedestrian safety compared to typical crosswalks at intersections. A mid-block crosswalk can include advance signage and pavement markings. Other design treatments could include a pedestrian refuge island or raised crosswalk. PennDOT criteria for mid-block crosswalks on state highways include a high level of pedestrian volume, which most locations do not meet.

*Additional information about mid-block crosswalks can be found under **Safe Pedestrian/Trail Crossings** starting on page 3-38.*

Bicycle and Pedestrian Crossings (continued)

Trail Crossing



Description: Trail crossings are locations where a multi-use trail crosses a roadway. Trail crossings may be within the area of an intersection, mid-block, or grade separated. Based on AASHTO guidelines, mid-block trail crossings can be considered a four-leg intersection. Mid-block trail crossings often involve mutual yielding, such that motorists must yield to pedestrians in the crosswalk and bicyclists/pedestrians must stop/yield to motorists if they cannot stop in time. Roadway trail crossings typically include marked crosswalks and ADA curb ramps corresponding to the width of the trail, along with warning signs. Flashing warning devices or signals may be considered for some trail crossings.

*Additional information about trail crossings can be found under Safe **Pedestrian/Trail Crossings** starting on page 3-38.*

Traffic Signal—Equipment & Timing



Description: Traffic signal equipment for pedestrians can include pedestrian pushbuttons, accessible pedestrian signals, passive detection for bicyclists or pedestrians, pedestrian signal heads, pedestrian countdown signal heads. Accessible pedestrian signals (APS) communicate information about the WALK and DON'T WALK intervals for pedestrians who are blind or have low vision. Countdown pedestrian signal heads show how much time

Timing: Signal timings for pedestrians can include a leading pedestrian interval, which gives pedestrians a head start when entering an intersection. This enables pedestrians to establish their presence and enhances pedestrian visibility.

Flashing Warning Device



Description: A flashing warning device can be used in combination with pedestrian crossing signs and a marked crosswalk at uncontrolled crossing locations. Signs and flashing warning devices can be side-mounted or overhead. Additionally, flashing warning devices can be user activated. Rectangular Rapid Flashing Beacons (RRFBs) are one example of a flashing warning device.

Pedestrian or Trail Bridge



Description: Bridge specifically for use by pedestrians and bicyclists to cross a stream, water body, steep grade, or other existing feature. The design of the bridge should be based on anticipated users, including maintenance or emergency vehicles. Steel, fiberglass, and wood are materials typically used for pedestrian or trail bridges.

Bicycle Amenities

Bicycle Racks



Description: A frame that is permanently anchored to the ground and is used to secure bikes when not in use. Bike racks should be located in visible areas and near major destinations such as employment centers, business and retail districts, parks, and transit stops.

Placement: Placement of bicycle racks should consider dimensions when occupied and must maintain clear walkway, particularly when placed along a sidewalk. Bicycle racks should be setback 2' to 3' from the curb when installed along a street. Bicycle racks can be located under shelters or building overhangs.

Style: The Inverted U and Post-and-Ring are preferred types of bicycle racks due to the support provided to bicycles and ease of use. However, custom designs that provide similar function can enhance a streetscape and reflect the character of the community.

Bicycle Repair Station



Description: A piece of equipment consisting of a simple bicycle stand and tools necessary to perform minor repairs and adjustments. The tools are typically securely attached to the stand, which can be used to hang the bike and allow the pedals and wheels to spin while making adjustments. Fix-It Stations should be located in visible areas, particularly along bicycle routes or near recreational resources.

Other Trail Types

Water Trail



Description: A navigable waterway marked for recreational use by primarily non-motorized watercraft such as canoe, kayak, inntertubes, and other watercraft. Water trails require suitable small craft launch points, and often provide areas for camping, picnicking, and other facilities along the route. Other recreational activities accessible via the water trail include fishing and birding.

Local Example: Yellow Breeches Creek Water Trail (Photo credit: Cumberland Valley Visitors Bureau)

Traffic Calming

Pavement Markings / Reduced Lane Widths



Description: Reduced excessive lane widths can help to slow traffic by providing a defined area for travel. Also, a reduction in lane widths can provide additional space for bicyclists and pedestrians. Lane widths can be defined by edge line striping, curbing, or other physical roadside treatments.

On-street Parking



Description: Provision of on-street parking on one or both sides that reduces roadway width. Parked vehicles also provide a buffer between traffic and pedestrians on the sidewalk.

Speed Hump or Speed Table



Description: Raised humps in the roadway, typically 3—4 inches high, intended for low volume and low speed roadways. Speed humps are most effective when placed in a series. Speed humps are the most popular traffic calming measure due to their effectiveness at reducing speeds, ease of implementation, and relatively low cost. Speed tables are speed humps with a longer flat top.

Option: Speed humps or tables placed at a crosswalk create raised pedestrian crossings, which provide better visibility for pedestrians.

Speed Cushion



Description: Speed humps or speed tables that include wheel cutouts to allow larger vehicles to travel without slowing down to travel over the hump. They are intended to allow emergency vehicles or transit vehicles to travel unimpeded.

Traffic Calming (continued)

Median / Pedestrian Refuge Island



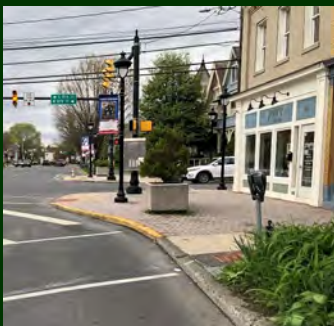
Description: Medians or raised islands between travel lanes can be designed with landscaping, hardscaping, welcome signs, or provide a mid-point refuge for pedestrian crossings. Medians help to slow traffic by defining travel lanes and can be used to reduce conflicts by physically preventing left turns and restricting turning movements to specific locations.

Gateway Treatment



Description: A combination of special treatments used at the entrance to an area or neighborhood that alert drivers to slow down due to a change in environment. Gateway treatments can include signage to identify the area or neighborhood. Other potential gateway treatments include landscaped medians or landscaped areas on the roadside.

Curb Extension or Bulb Out



Description: Areas of expanded curbing that extend across a parking lane and may narrow a travel lane. Curb extensions create shorter crossing distances for pedestrians while increasing available space for street furniture and plantings.

Chicane



Description: Series of three bulb-outs, staggered at mid-block locations on alternating sides of the street. Chicanes force drivers to slow down to negotiate through the series of extensions. Chicanes can include landscaping to improve the street appearance, but will reduce on-street parking.

Traffic Calming (continued)

Raised / Textured Intersection



Description: An entire intersection, including crosswalks, that is built level with the sidewalk and/or has textured pavement. Similar to a speed hump or table, a raised intersection provides a vertical deflection to slow traffic. The elevated crosswalks also make it easier for pedestrians to cross the street. Raised intersections can be built with a variety of materials, including asphalt, concrete, or pavers.

Roundabout



Description: An intersection design treatment that reduces conflict points and slows traffic. Traffic approaching the intersection yields to traffic circulating around the roundabout. Splitter islands at the entries help to slow and direct traffic and serve as pedestrian refuge areas. In some situations, roundabouts can provide increased capacity and reduced delay when compared with traffic signals.

Mini-Roundabout



Description: A roundabout with a small diameter and traversable central island. Mini-roundabouts offer benefits similar to roundabouts, but with a smaller footprint and less cost. Mini-roundabouts are typically used in urban or small town settings on roadways with low speeds.

Streetscapes

Pedestrian Scale Lighting



Description: Pedestrian-scaled street lights, 10 to 12 feet in height, help provide security along sidewalks, as well as help to create aesthetic appeal to the streetscape.

Streetscape Amenities



Description: Benches, trash receptacles, and bicycle racks create a more comfortable and convenient environment for walking, biking, and enjoying the street. The design of the streetscape furniture or amenities should be consistent to convey the unique character of the community. Amenities should be placed so they do not obstruct pedestrian walkways, building entrances, fire hydrants.

Vertical Banners



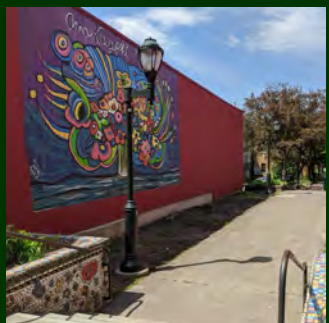
Description: Banners help to announce and publicize special events, as well as help to create an identity and sense of place. Vertical banners may be attached to street light poles, or may be freestanding.

Street Trees



Description: Street trees provide shade for pedestrians, help with stormwater management, and help to create a sense of place. The tree canopy has a calming effect on traffic with the increased sense of enclosure. The type and location of street trees should be chosen based on site conditions. Street trees can be placed between the sidewalk and curb or between the sidewalk and front yard.

Public Art



Description: Public art may be incorporated into streetscapes through elements such as: planters and / or benches embellished by local artists, unique bike racks, or other art installations. Public art helps to provide character to streetscapes.

Wayfinding

Kiosk / Interpretive Signs



Description: Provides detailed information about the facility, such as a map, trail rules, and emergency information. Kiosks can also provide interpretive information about the history of an area. Kiosks are often located at a trailhead or a rest stop along a trail.

Guidance / Navigation Signs



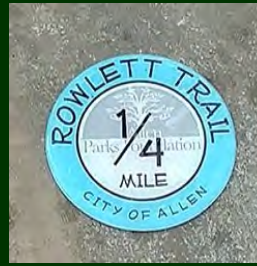
Description: Signs that can stand alone or mounted on an existing pole that identify a facility and provide directional information, particularly at key decision points. These signs are often used for on-road bicycle routes because they can be viewed by trail users and motorists.

Post Signs



Description: Small, simple stand alone signs that are used to identify a facility and provide basic information, such as directional arrows or mileage.

Pavement Markings / Medallions



Description: Wayfinding markings that are placed on the pavement to identify a facility and provide basic information, such as directional arrows or mileage.



Trail Marker/Blaze



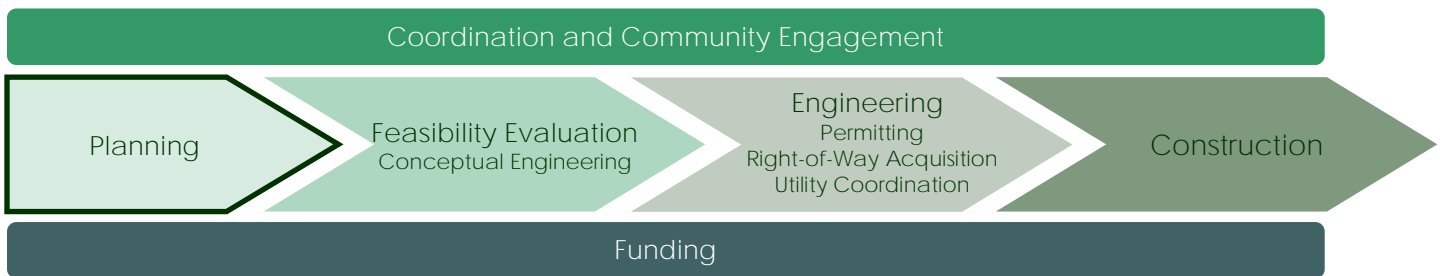
Description: Markings that are typically found on trees and are easy to see while on a natural path, hiking trail, or mountain biking trail. The markings indicate the beginning or end of a trail or a change in direction. For mountain biking trails, markings can indicate level of difficulty. Paint is most commonly used to mark hiking trails. Other medallions or markers made of metal, plastic, or wood can be nailed into trees.

Active Transportation Network

South Middleton Township has a strong foundation for an active transportation network. The township has proactively developed plans and improvements for active transportation, particularly in Boiling Springs, Walnut Bottom, and township parks. Closing the gaps and building a more connected network will take long term dedication from township leadership, planning partners, and the community. Infrastructure investments, like the projects identified in this plan, take time. Continued development of the network will likely occur in a phased approach. However, incremental changes over time will help to achieve the vision of a connected active transportation network in South Middleton Township.

The maps on the following pages illustrate the potential connections that could be made to make the transportation network in South Middleton Township more inviting to people walking and biking. The potential facilities correspond with the Active Transportation Toolbox. The potential alignments and types of facilities were identified, evaluated and prioritized based on previous plans, field visits, and input from the steering committee and public. The timing of implementation will depend on a number of factors, such as feasibility, funding availability, community support, and coordination with property owners, and land development activity. Additional evaluation of feasibility may be necessary before improvements can be implemented. Changes in conditions or travel patterns should be monitored and may influence the need or type of improvements.

Many of the connections identified on the Active Transportation Network Map are in the planning phase. Proposed connections will likely require further feasibility evaluation, engineering, permitting, utility coordination, and property owner coordination before any improvements can be constructed. There will be future opportunities for public input and coordination with project partners. Additionally, implementation of any improvements is dependent upon available funding and other resources.



Focus Areas

Early in the planning process, primary focus areas within South Middleton Township were identified where additional attention was needed to identify active transportation solutions to enhance the community. These solutions build off of the existing infrastructure and ongoing efforts in the township.

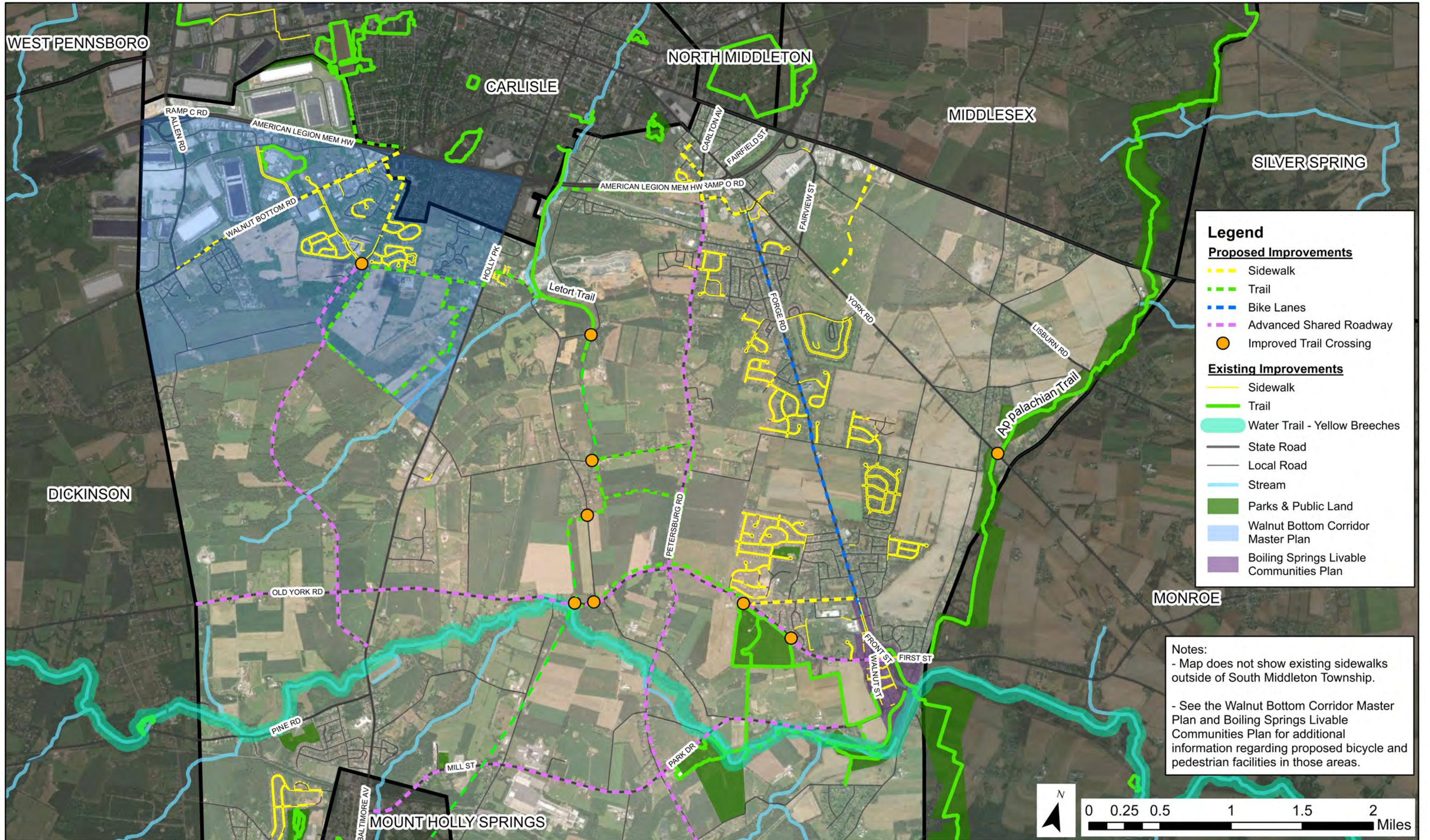
Projects identified on the following pages have been identified as having the largest impact towards improving mobility in South Middleton Township.

The focus areas identified and outlined on the following pages are:

- Walkable Boiling Springs
- Forge Road Bike Lanes
- Boiling Springs Gateway
- Letort Trail Connections—Spring Meadows Park & Boiling Springs
- Craighead House Crossing
- Wittlinger Preserve Connections
- Walnut Bottom
- Marsh Drive Loop Trail

South Middleton Township Active Transportation Plan

Active Transportation Network



Legend

Proposed Improvements

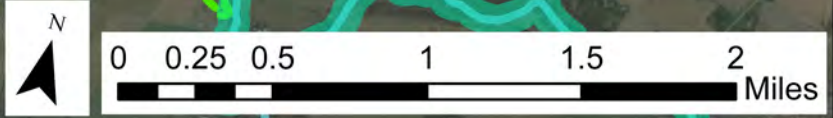
- Sidewalk
- Trail
- Bike Lanes
- Advanced Shared Roadway
- Improved Trail Crossing

Existing Improvements

- Sidewalk
- Trail
- Water Trail - Yellow Breeches
- State Road
- Local Road
- Stream
- Parks & Public Land
- Walnut Bottom Corridor Master Plan
- Boiling Springs Livable Communities Plan

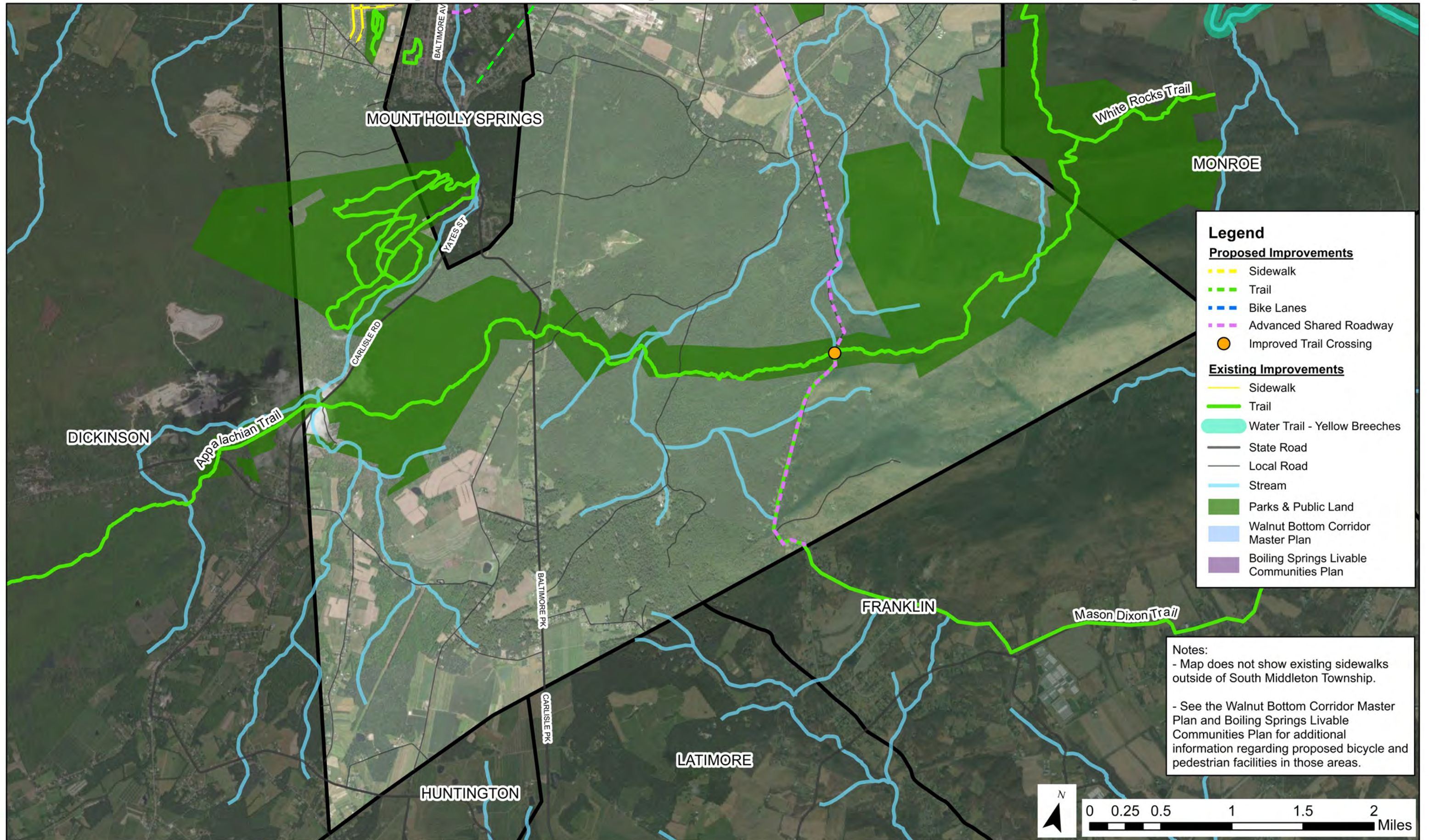
Notes:

- Map does not show existing sidewalks outside of South Middleton Township.
- See the Walnut Bottom Corridor Master Plan and Boiling Springs Livable Communities Plan for additional information regarding proposed bicycle and pedestrian facilities in those areas.



South Middleton Township Active Transportation Plan

Active Transportation Network



Notes:

- Map does not show existing sidewalks outside of South Middleton Township.
- See the Walnut Bottom Corridor Master Plan and Boiling Springs Livable Communities Plan for additional information regarding proposed bicycle and pedestrian facilities in those areas.

Walkable Boiling Springs

South Middleton Township has prioritized investment in improving the walkability of the Boiling Springs Area in recent years as a result of the Boiling Springs Livable Communities Plan. Currently, the township is working to deliver pedestrian and safety improvements on First Street and Front Street and the Children's Lake Dam Replacement Project. These projects remain a priority for South Middleton Township, and the Active Transportation Plan aims to build off of their success by identifying improvements to walking and biking throughout the community.

Future Streetscape on E 1st St (PA 174)



Priority Improvements

- Sidewalks
- Street-Scaping
- Traffic Improvements
- Village Gateways
- Storm Water Management
- Bicycle/ Pedestrian Amenities

Implementing Recommendations

- Boiling Springs Livable Communities Plan (2008)
- Boiling Springs Traffic Calming and Feasibility Analysis (2016)
- Balancing Nature & Commerce (2017)



Planned Improvements

Timeline

		2021	2022	2023	2024
Phase 1 Pedestrian Improvements—High Street to Hilltop Road	Design/Permitting	■			
	Construction		■		
Children's Lake Dam Replacement	Design/Permitting	■			
	Construction		■	■	
Phase 2A Pedestrian Improvements—First Street to Arnold Street	Design/Permitting	■	■		
	Construction			■	■
Phase 2B Pedestrian Improvements—First Street to Race Street	Design/Permitting		■	■	
	Construction			■	■

Planned Pedestrian Network in Boiling Springs



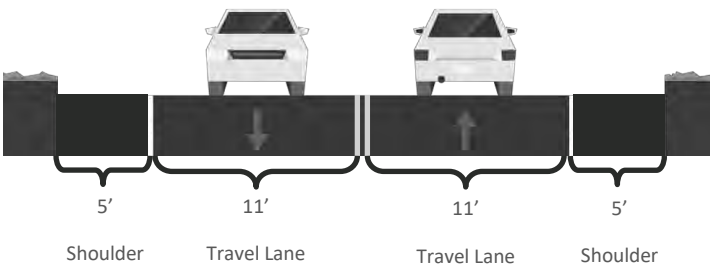
Early Action

The Board of Supervisors authorized installation of speed humps on Front Street and Race Street in Boiling Springs. This is a stopgap measure to provide traffic calming and speed control prior to construction of Phase 2B of the Walkable Boiling Spring Plan. Installation is anticipated in early Fall 2021.

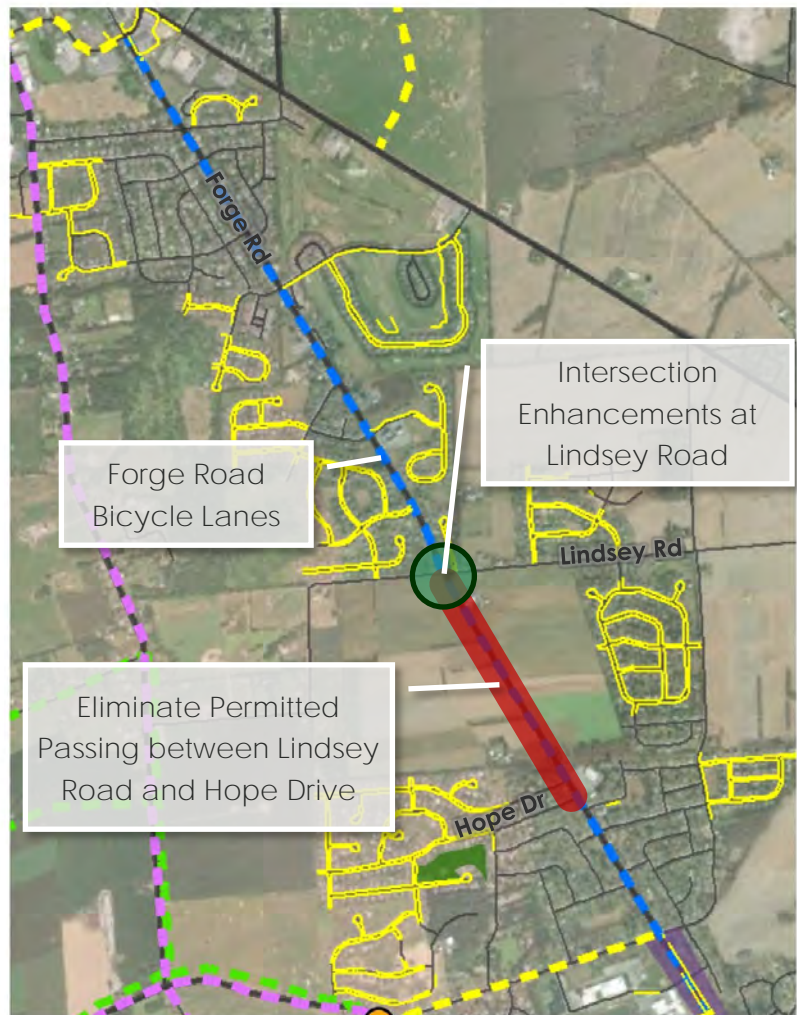
Forge Road Bicycle Lanes

Forge Road is the main connection between Carlisle and Boiling Springs and provides access to a number of residential neighborhoods. It has relatively wide shoulders and moderate traffic volumes. For these reasons, it is a popular route for walking and biking. However, bicyclist and pedestrians may not feel safe and comfortable using the roadway given the high vehicle speeds and the lack of dedicated infrastructure for walking or biking. Given the length of the corridor and existing wide shoulders, on-road bicycle infrastructure is the focus for potential improvements.

Existing Conditions

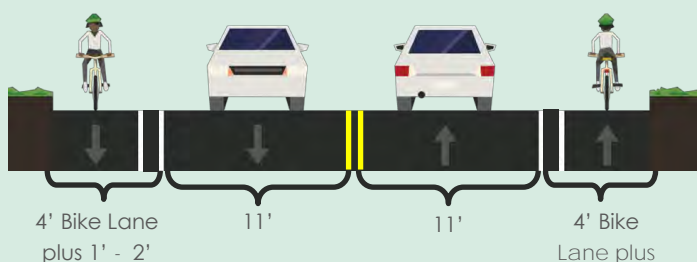


- 3 miles between Westminster Drive and High Street
- State owned roadway
- Major collector roadway classification
- Approximately 5,000 vehicles per day
- No dedicated infrastructure for bicyclists
- Very limited sidewalks, primarily near Boiling Springs
- Parking occurs along the corridor between Springville Road and High Street
- Inconsistent speed limit (varies between 35 and 50 MPH)
- Passing permitted in areas between Hope Drive and Lindsey Road
- Numerous residential and commercial driveways
- Numerous roadside features, including utility poles, signs, mailboxes, landscaping, and stormwater management facilities



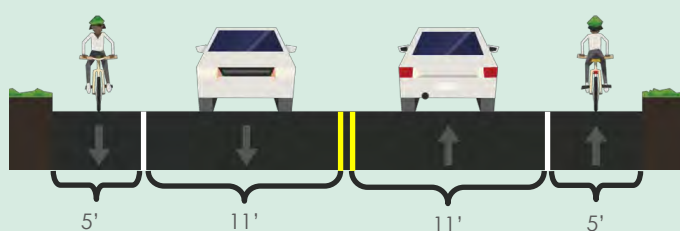
Potential Improvements

Option 1—Buffered Bike Lanes



- Bike lanes with a 1' to 2' striped buffer to provide additional space between cyclists and motorized vehicles

Option 2—Bike Lanes



- Bike lane pavement markings added to the existing shoulders

Description

- Buffered bike lanes or bike lanes on Forge Road between Westminster Drive and High Street
- Bike lanes designated with pavement markings and signage
- Establish consistent speed limit (35 MPH) along corridor
- Eliminate permitted passing zone
- Intersection improvements at Lindsey Road
- Traffic calming measures, such as gateway medians
- Boiling Springs Gateway proposed improvements (See page 3-21)

Considerations

- PennDOT coordination and approval is necessary for any improvements
- Buffered bike lanes will likely require shoulder minor widening along the corridor
- Bike lanes may require minor shoulder widening in select locations

Next Steps

- Continue coordination with PennDOT regarding the speed limit reduction and elimination of passing zones
- Evaluate the need and feasibility of shoulder widening, coordinate with PennDOT, and select a preferred bike lane option
- Coordinate with Harrisburg Area Transportation Study (HATS) and submit a transportation problem description
- Identify funding for design and/or construction. Potential grant funding programs include:
 - Transportation Alternatives Set Aside Program
 - Tri-County Regional Planning Commission— Regional Transportation Plan (RTP) Implementation Program

Target Users



Confident Cyclist



Advanced Cyclist

Benefits

- Improves connectivity between Boiling Springs and Carlisle
- Increases community access from surrounding neighborhoods
- Increased safety and visibility for cyclists
- Traffic calming

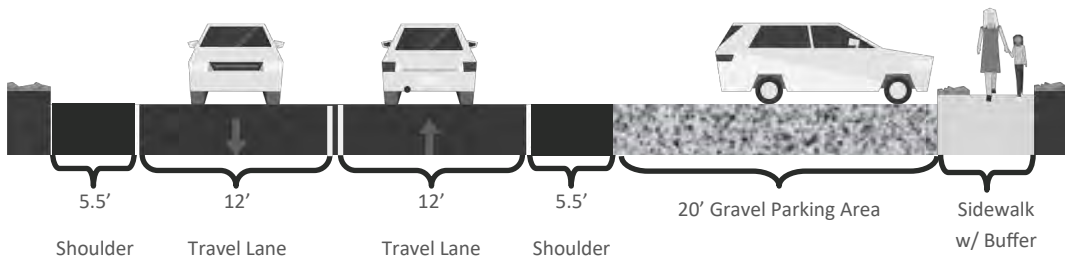
Early Action

South Middleton Township is coordinating with PennDOT District 8 to reduce the speed limit on a segment of Forge Road to 35 MPH and also eliminate the permitted passing zone.

Boiling Springs Gateway

Building off of the success of the Boiling Springs Livable Communities Plan, planned pedestrian and safety improvements on First Street and Front Street, and the Children’s Lake Dam Replacement Project, a gateway treatment and streetscape project along Forge Road would further increase the walkability and provide traffic calming for motorists entering Boiling Springs from the north.

Existing Conditions



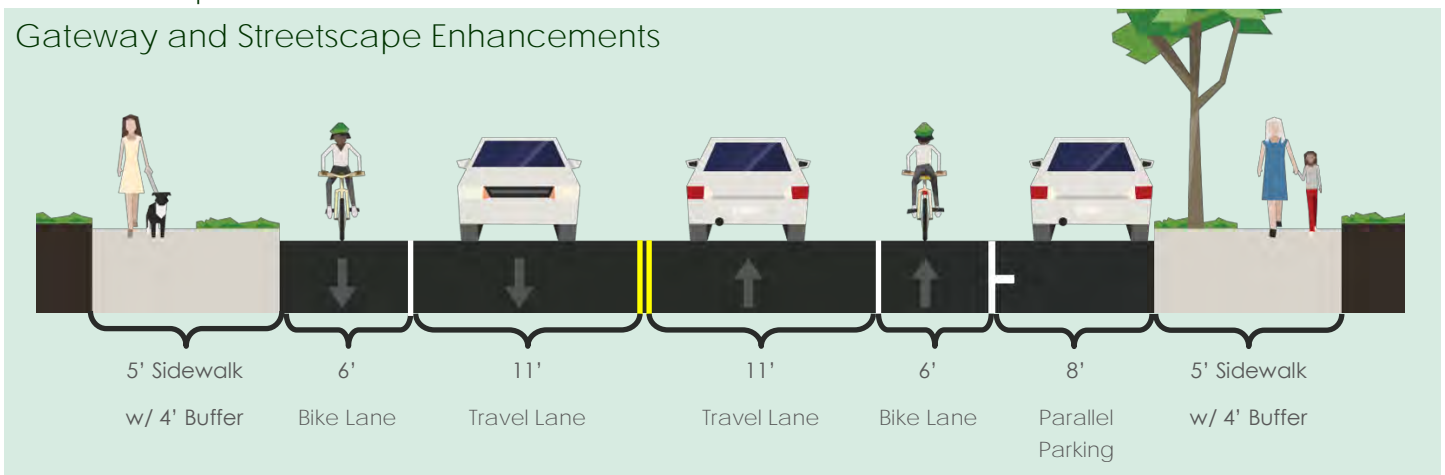
- State owned roadway
- Approximately 20' wide gravel parking area outside of roadway
- Sidewalks between parking area and buildings that do not meet ADA standards
- Some newer sidewalks on opposite side of road

Boiling Springs Gateway

This block contains an aerial map of the Boiling Springs Gateway area. A legend on the right side of the map identifies the following features from top to bottom: Sidewalk, Buffer, Bike Lane, Travel Lane, Travel Lane, Bike Lane, Parking Lane, Buffer, and Sidewalk. The map shows Forge Rd running horizontally across the center. A yellow highlighted area on the left side of Forge Rd is labeled 'Phase 2-A Pedestrian Improvements'. A blue highlighted area on the right side of Forge Rd is labeled 'Forge Road Bike Lanes'. Other streets shown include Arnold St and E Springville Rd.

Potential Improvements

Gateway and Streetscape Enhancements



Description

- Reconfigure parking from off-street to parallel, on-street
- Street trees
- Updated sidewalks to meet ADA standards and demand in community
- Install gateway treatments to welcome people into the village
- Bike lanes

Considerations

- The structures have a large set-back along Forge Road because the road was formerly a trolley line connecting Boiling Springs to Carlisle
- Identified improvements may be outside of the PennDOT right-of-way
- Reconfiguration of off-street parking to parallel, on-street parking and streetscape enhancements will involve coordination with property owners and PennDOT
- Existing overhead utilities may limit feasibility

Next Steps

- Evaluate the feasibility of the proposed improvements, including coordination with PennDOT, property owners, and community members
- Coordinate with PennDOT regarding existing right-of-way
- Identify funding for design and construction

Target Users



Leisure Walker



Confident Cyclist

Benefits

- Increased safety and visibility for pedestrians
- Traffic calming
- Welcome visitors to Boiling Springs



Gateway Sign prepared for Boiling Springs Pedestrian & Street-Scaping; Phase 1

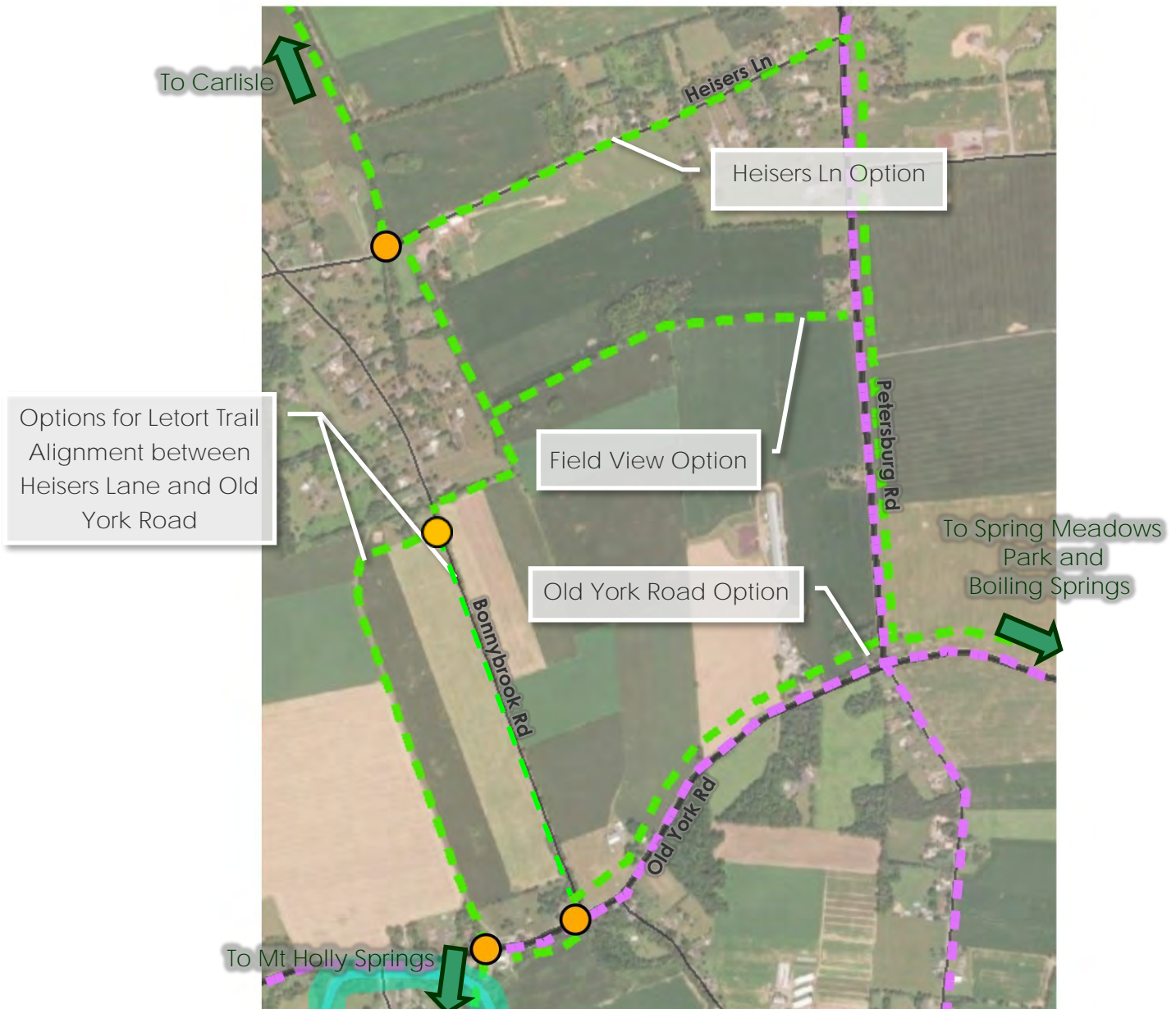
Letort Trail Connections—Spring Meadows Park & Boiling Springs

The Letort Trail is a major recreational asset to the communities in the region, including South Middleton Township. It is assumed that the trail will continue on the former railroad alignment (with some deviation where necessary) to eventually connect into Mt Holly Springs Borough. To improve access for residents of South Middleton Township, three potential connector trail options have been identified in this plan to connect the Letort Trail to Spring Meadows Park and the Boiling Springs Area.

Existing Conditions

- Letort Trail currently terminates at Spring Garden Street
- Efforts are currently underway to continue the trail south to Mt Holly Springs Borough
- There is currently no connection between the Letort Trail and Spring Meadows Park or Boiling Springs
- The township, with funding through the Cumberland County Land Partnerships Grant, is in the process of completing construction of the Letort Trail extension from South Spring Garden Street to Heisers Lane.

Potential Trail Connections



Potential Improvements

Letort Trail— Heisers Lane to Old York Road and Craighead

- An alternative alignment is needed between Heisers Road and Bonnybrook Road because the former railroad right-of-way is no longer intact and has been developed for residential uses.
- In order to minimize potential impacts to residential properties, the trail could follow property lines from Heisers Lane to Bonnybrook Road and rejoin the former railroad on the west side of Bonnybrook Road. This would require a mid-block trail crossing of Bonnybrook Road. Another option could include a trail on the west side of Bonnybrook from the mid-block trail crossing to Old York Road, which could reduce impacts to adjacent property.
- Key next steps include feasibility evaluation and coordination with property owners.

Letort Trail—Spring Meadow Park and Boiling Springs Connection

There is strong interest in connecting the Letort trail to Spring Meadows Park, Boiling Springs, and the surrounding residential communities. Outlined below are three potential options for this connection. Each option has benefits and constraints and requires further evaluation. In particular, all three options involve properties that are preserved with agricultural easements and will require coordination with multiple property owners. An off-road trail along Heisers Lane poses significant feasibility challenges, but an on-road bicycle facility might be an option along this corridor.

Heisers Lane Option	Field View Option	Old York Road Option
Alignment Description <ul style="list-style-type: none"> – Trail connection along the south side of Heisers Lane between the future Letort Trail Crossing and Petersburg Road – Trail along Petersburg Road between Heisers Lane and Old York Road – Trail along Old York Road between Petersburg Road and Spring Meadows Park 	Alignment Description <ul style="list-style-type: none"> – Trail along property boundaries to Petersburg Road – Trail along Petersburg Road to Old York Road – Trail along Old York Road between Petersburg Road and Spring Meadows Park 	Alignment Description <ul style="list-style-type: none"> – Trail along Old York Road between the Letort Trail Crossing and Spring Meadows Park

Next Steps

- Coordinate with Cumberland County Agricultural Land Preservation Board regarding preserved lands in the area
- Identify funding for feasibility study for to further evaluate the alignment options for the connection to Spring Meadows Park and Boiling Springs Connection. Conduct community engagement and property owner coordination as part of the feasibility study.

Target Users



Leisure Walker



Active Walker/Jogger



Confident Cyclist



Casual Cyclist

Benefits

- Extending the Letort Trail increases opportunities for recreation and transportation in the community
- Future trail connections to the Letort Trail further improve community connectivity

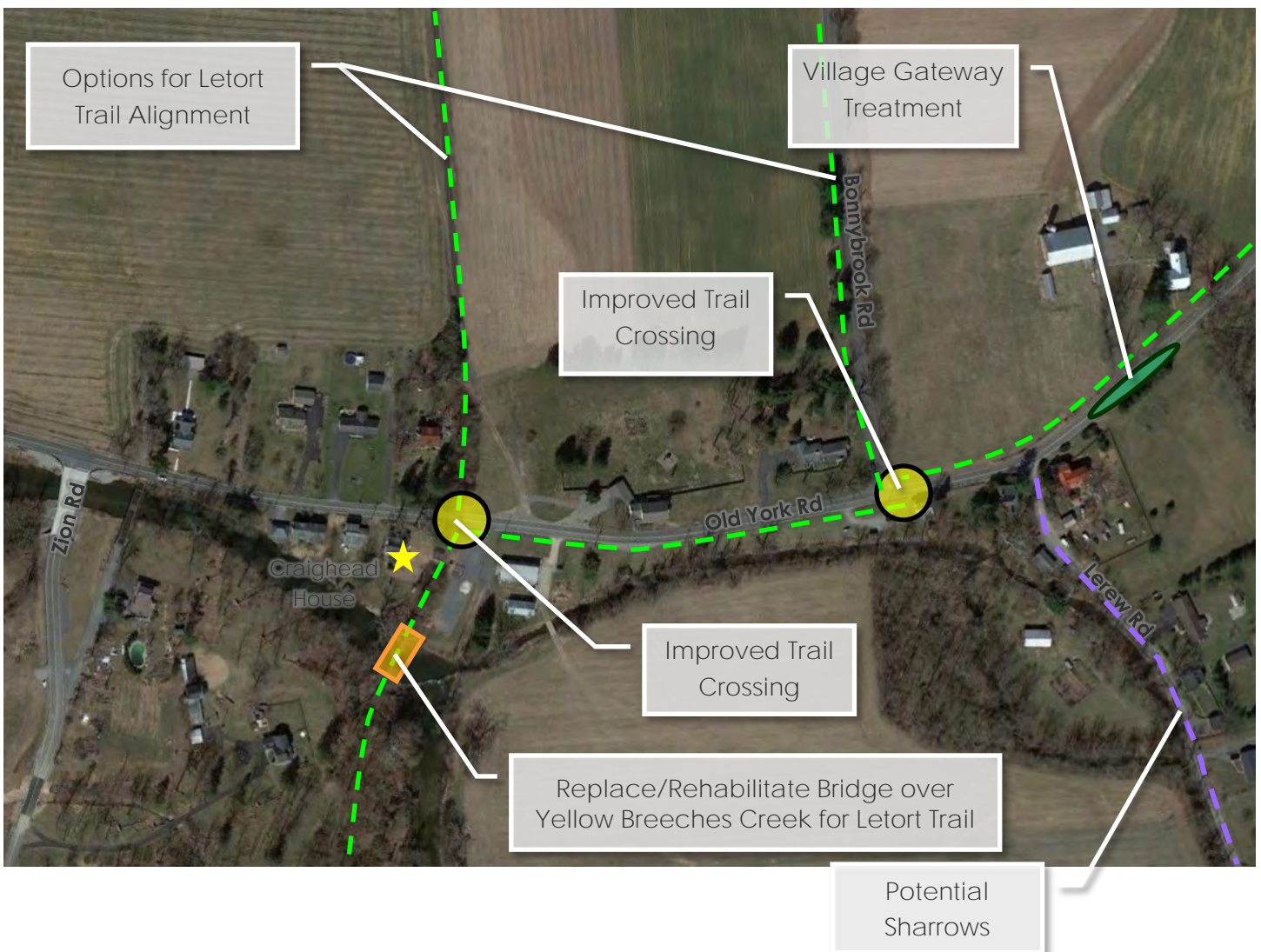
Craighead House Crossing

The Letort Trail extension to the south will require a trail crossing of Old York Road near the historic Craighead House. The Craighead House is a late-Victorian home that was home to the Craighead family, who were influential scholars, scientists, and conservationists. The home has been restored and now serves as an educational center. The crossing of the Letort Trail is an opportunity to enhance access to the Craighead House and the Yellow Breeches Creek and further honor the legacy of the Craighead family. Additionally, the Craighead House has parking and other amenities, so it could serve as a trailhead for the Letort Trail.

Existing Conditions

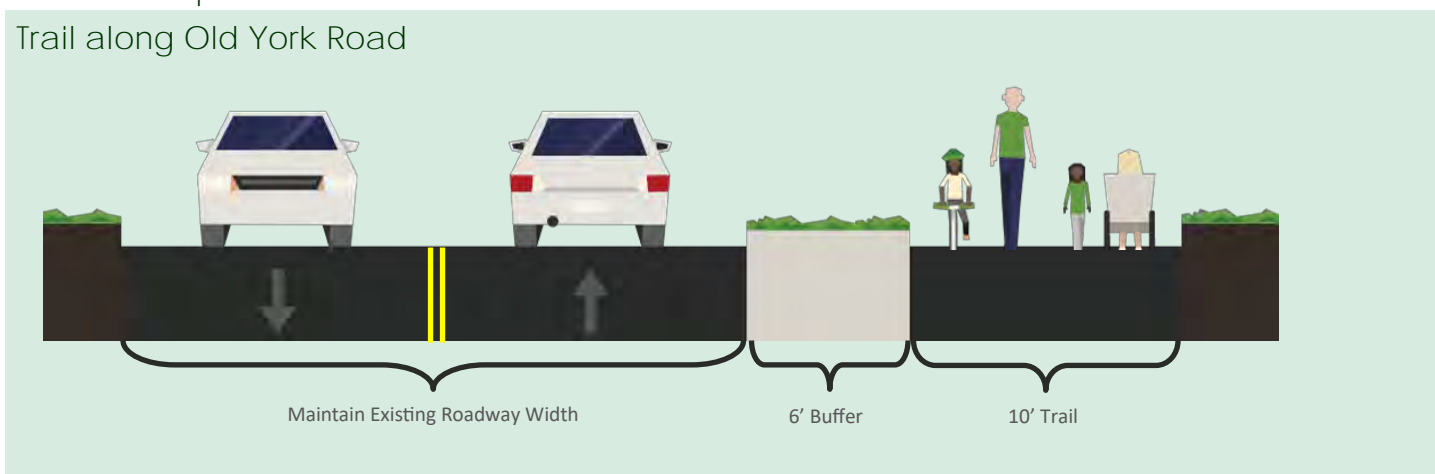
Old York Road (S.R. 174)

- State owned roadway
- Speed Limit: 40 MPH
- No dedicated infrastructure for bicycles
- Residential homes are close to the roadway and create a village setting near the Craighead House



Potential Improvements

Trail along Old York Road



Description

- Reduce speed limit within village setting around Craighead House
- Install traffic calming / gateway treatments
- Provide a safe trail crossing for the Letort Trail of Old York Road at the Craighead House with high visibility crosswalk, advanced warning signs and consider side-mounted Rectangular Rapid Flashing Beacon (RRFB)
- Rehabilitate/Replace bridge over creek to carry Letort Trail south
- Trail along Old York Road for a connection to Spring Meadows Park and Boiling Springs

Considerations

- Current speed limit on Old York Road is too high to provide a trail crossing for the Letort Trail
- Feasibility and options for rehabilitating/replacing former railroad bridge

Next Steps

- Focus on the extension of the Letort Trail extension to Craighead
- Further evaluate the feasibility of the proposed improvements and coordinate with PennDOT, property owners, and community members as part of the evaluation. In particular, coordinate with PennDOT regarding traffic calming measures, safety improvements, and trail crossing, including a potential speed limit reduction on Old York Road within Craighead.

Target Users



Leisure Walker



Active Walker/Jogger



Casual Cyclist

Benefits

- Expand and enhance access to the Letort Trail, Craighead House, Yellow Breeches, and Boiling Springs
- Increase visibility of Craighead House
- Increase safety and visibility for trail users
- Traffic calming

Wittlinger Preserve Connections

The Wittlinger Nature Preserve is a unique natural area just outside of Boiling Springs. It includes natural surfaced trails and access to the Yellow Breeches Creek. However, a portion of the 50-acre property is on the southside of the Yellow Breeches Creek and has limited access. Enhancing access to this preserve while minimizing impacts to the natural habitat and environmental resources will enable residents and visitors to enjoy and explore nature's beauty.

Existing Conditions

- Existing segments of trails within the Municipal Park/Leaman Park and Wittlinger Nature Preserve
- Limited trail connections between the parks and preserves
- Limited access to Wittlinger Preserve
- Yellow Breeches Creek is a designated water trail and scenic river
- Limited crossings and access to the Yellow Breeches Creek
- Township is developing a master plan for the Municipal and Leaman Parks



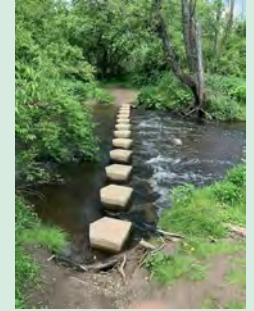
Image Source: Cumberland County



Potential Improvements

Stepping Stones for Yellow Breeches Creek Crossing

The Wittlinger Nature Preserve is unique environmental and recreational resource in the Township and located within walking distance of Boiling Springs. However, access to the preserve is limited due to the Yellow Breeches Creek. Stepping stones could be used to improve access and connections to the Wittlinger Preserve with minimal impacts to the creek and other environmental resources.



Images: Stepping stones in Ashbridge Preserve, Chester

Description

- Natural surface path along the south side of the Yellow Breeches between the Township Municipal Park/Leaman Park and Wittlinger Preserve
- Stepping stones or a footbridge over the tributary of Yellow Breeches
- Stepping stones to provide a trail connection between Boiling Springs and Wittlinger Preserve (in the area of the former dam)

Considerations

- Ensure potential improvements support and preserve the natural areas, environmental resources, and the Yellow Breeches water trail and greenway
- Identify appropriate signage that may be needed for any stepping stone installations to provide appropriate cautions
- Water trail access and portage for small crafts
- The potential location for the stepping stones is a former dam location, so installation should not impact hydrology
- Increased access to the Wittlinger Preserve

Next Steps

- Complete and initiate implementation of the master plan for the township's Municipal Park and Leaman Park
- Coordinate with Cumberland County Conservation District, PA DEP, and PA Fish and Boat Commission about feasibility of stepping stones

Target Users



Leisure Walker



Active Walker/Jogger



Hiker

Benefits

- Enhance access to the Municipal Park/Leaman Park, Wittlinger Nature Preserve, and Boiling Springs

Walnut Bottom

The Walnut Bottom Corridor Master Plan outlines a framework for future development and transportation enhancements in the area of South Middleton Township surrounding the Walnut Bottom Road corridor. The plan identifies three primary goals:

Goal A: Achieve the Sustainable Reuse and Redevelopment of Sites Along Walnut Bottom Road

Goal B: Improve Public Infrastructure within the Study Area

Goal C: Ensure the Successful Implementation of the Master Plan Through Partnerships and Funding

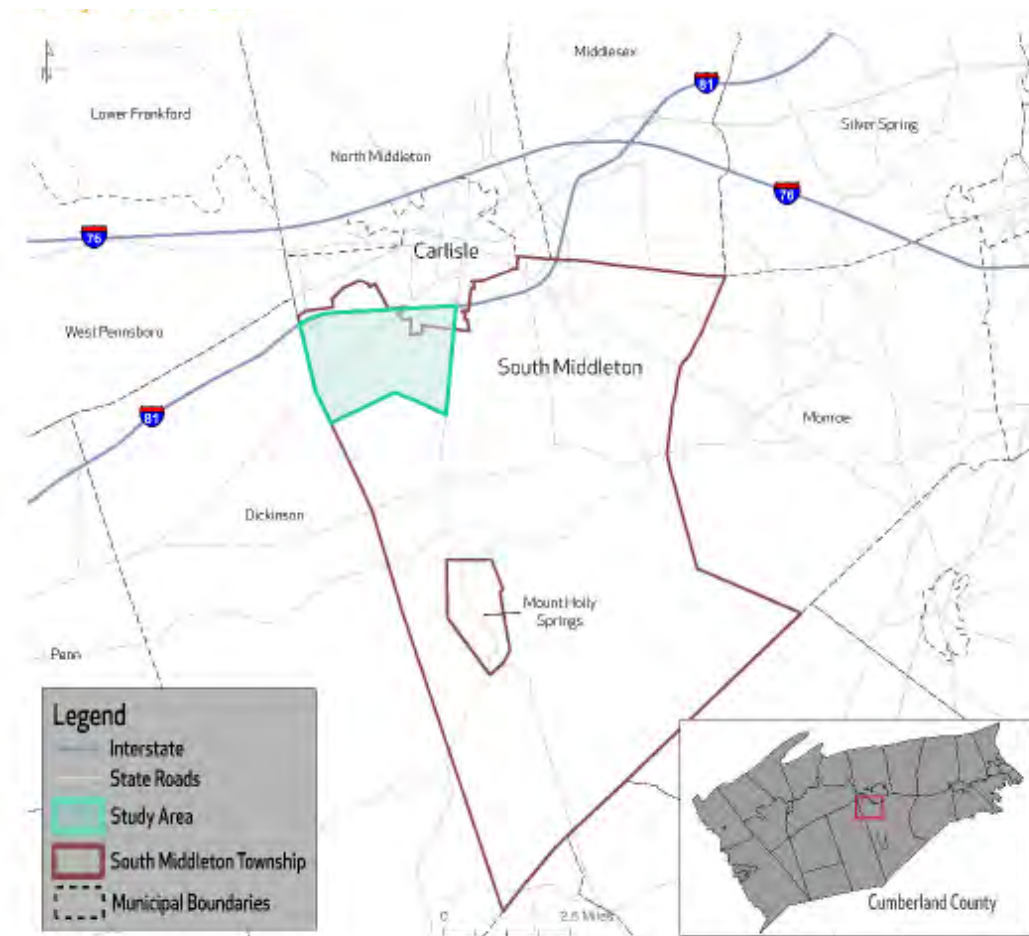
These goals support the vision of developing the Walnut Bottom Corridor into a walkable, mixed-use town center for the community. The strategies outlined to achieve these goals in the Walnut Bottom Corridor Master Plan were considered when developing the South Middleton Active Transportation Plan.



By 2030, the Walnut Bottom Corridor will be transforming into a **VIBRANT**, walkable mixed-use Town Center with a **VARIETY** of housing choices supported by neighborhood-scale businesses, regional employment opportunities, and unique dining, cultural, and public space **AMENITIES**.



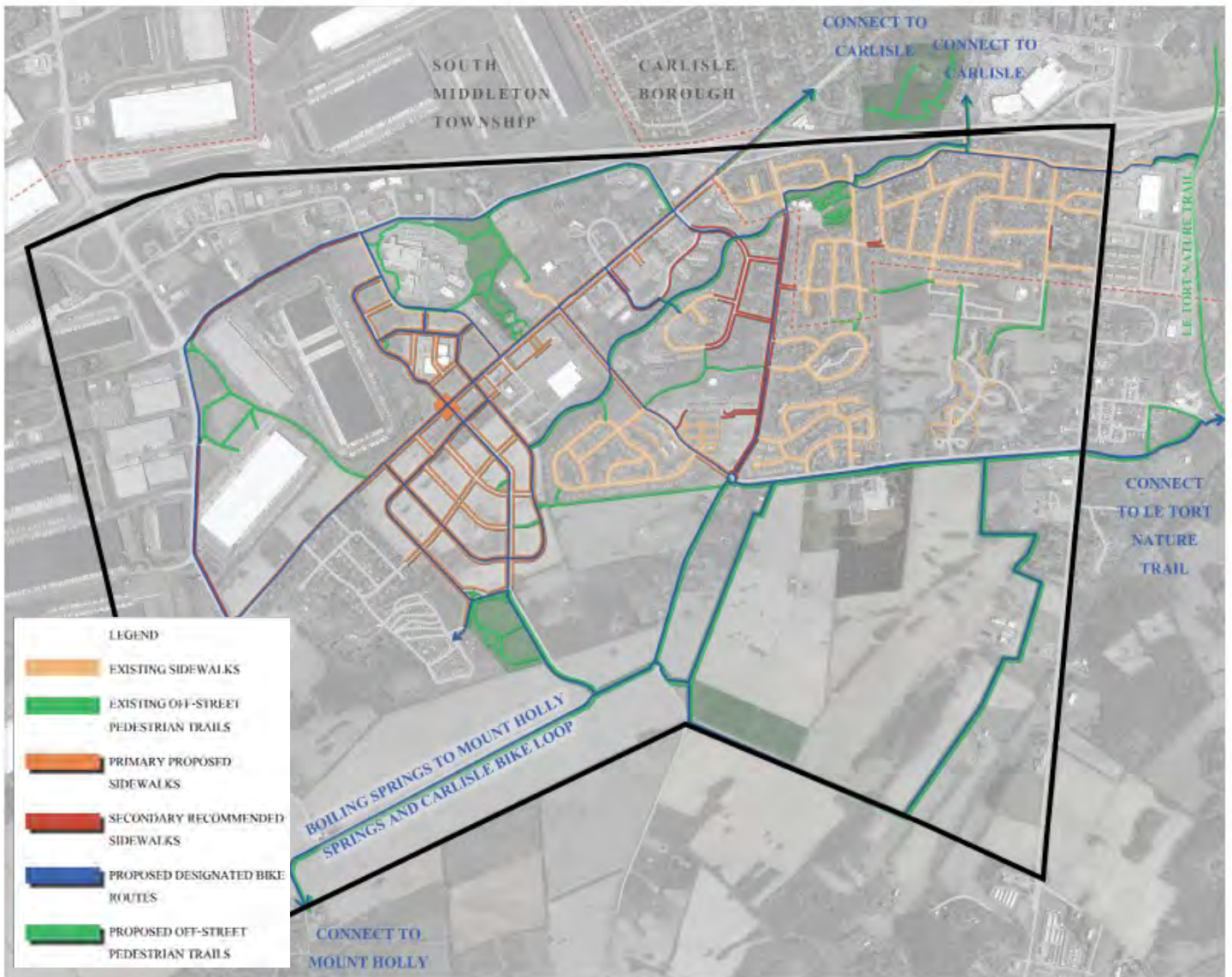
Study Area Location (from Master Plan)



Priority Improvements

- Sidewalks and bicycle facilities on Walnut Bottom Road
- Sidewalks along Rockledge Drive / Garland Drive
- Marsh Drive Loop Trail (see page 3-31)

Walnut Bottom Active Transportation Network (as identified in Master Plan)



Illustrative Improvements (from Master Plan)



Marsh Drive Loop Trail

One improvement identified in the Walnut Bottom Corridor Master Plan was development of the Marsh Drive Loop Trail. South Middleton Township is currently coordinating on the conveyance of a 100' right-of-way with the Church of God, which was part of an approved conditional use. The right-of-way is to be deeded to the township as a condition of a land development proposal. There is a potential opportunity for a recreational trail to be built on this land. Continued land development in the Walnut Bottom area of the township could provide an opportunity for additional connections to be made.

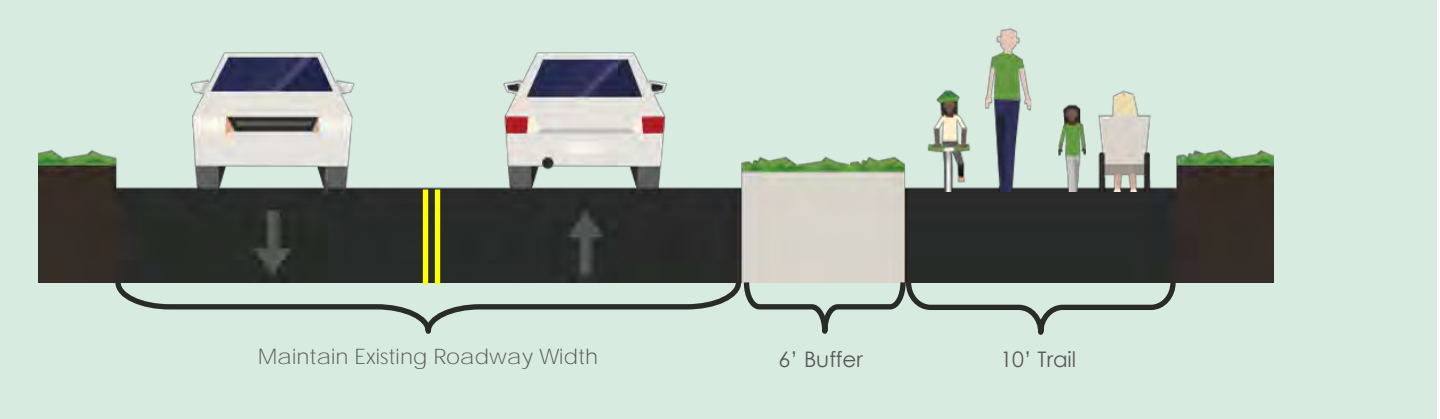
Existing Conditions

- Recent and future new residential land development in the Walnut Bottom area
- Limited park and recreational resources available for residents in the Walnut Bottom area
- Marsh Drive and Rockledge Drive currently used by residents for walking and biking



Potential Improvements

Trail along Marsh Drive



Description

- Multi-use Loop Trail around the Church of God property
- Trail along the south side of Marsh Drive between Rockledge Drive and Holly Pike (SR 34)
- Key pedestrian crossings at Rockledge Drive, Ridgeway Drive, and Greenfield Drive
- Potential trailhead at former water tower site

Considerations

- Connections to neighborhoods and the Letort Trail could be made in the future

Next Steps

- Secure the right-of-way for the Loop Trail
- Pursue grant funding for design and construction of the Loop Trail

Target Users



Leisure Walker



Active Walker/Jogger

Benefits

- Recreational resource and amenity
- Connection to Walnut Bottom area and Rockledge Recreation Fields
- Potential for long term connection to Letort Trail

Early Action

South Middleton Township is coordinating on the conveyance of the 100' right-of-way around the Church of God for the Loop Trail.

Other Key Connections

In addition to the improvements identified for the focus areas in South Middleton Township, other connections were identified to create a more complete active transportation network. The connections highlighted below can be found on the Active Transportation Network Maps.

Sidewalk on W Springville Road

Description: A sidewalk along Springville Road between Old York Road (PA 174) and Forge Road would provide neighborhood access to the school campus, Spring Meadows Park, and other planned bicycle and pedestrian facilities.

Connections: Boiling Springs; Spring Meadows Park; Yellow Breeches Middle School; Iron Forge Elementary School; Boiling Springs High School

Considerations: This connection requires further feasibility evaluation to determine if the sidewalk is provided along one side of the roadway, as well as coordination with adjacent property owners.

Sidewalk Connections from Westminster Drive to Carlisle Borough

Description: There are some short segments of existing sidewalks along Westminster Drive, but the sidewalk network is incomplete. Additionally, there are key destinations along Westminster Drive for pedestrians, including the Cumberland County Assistance Office. The proposed sidewalks would connect this northern area of the township with the sidewalk network in Carlisle Borough and expand pedestrian access.

Connections: Carlisle Borough; Cumberland County Assistance Office

Trail between S Spring Garden Street and Petersburg Road

Description: South Middleton Township is currently considering purchasing the Carlisle Airport. There is potential to provide a trail connection on the airport property (just to the south of I-81) between S Spring Garden Street and Petersburg Road. Such a connection could tie into the sidewalk connection along Westminster Drive to connect the Forge Road corridor with the Letort Trail.

Connections: Letort Trail; Carlisle Borough; Carlisle Airport

Considerations: The sidewalk connections along Petersburg Road, Pine Street, and Spruce Avenue may require further evaluation due to the narrow width of the roadways and numerous adjacent residential properties.

Sidewalk along Connector Road in Rose Business Park & Heritage Village

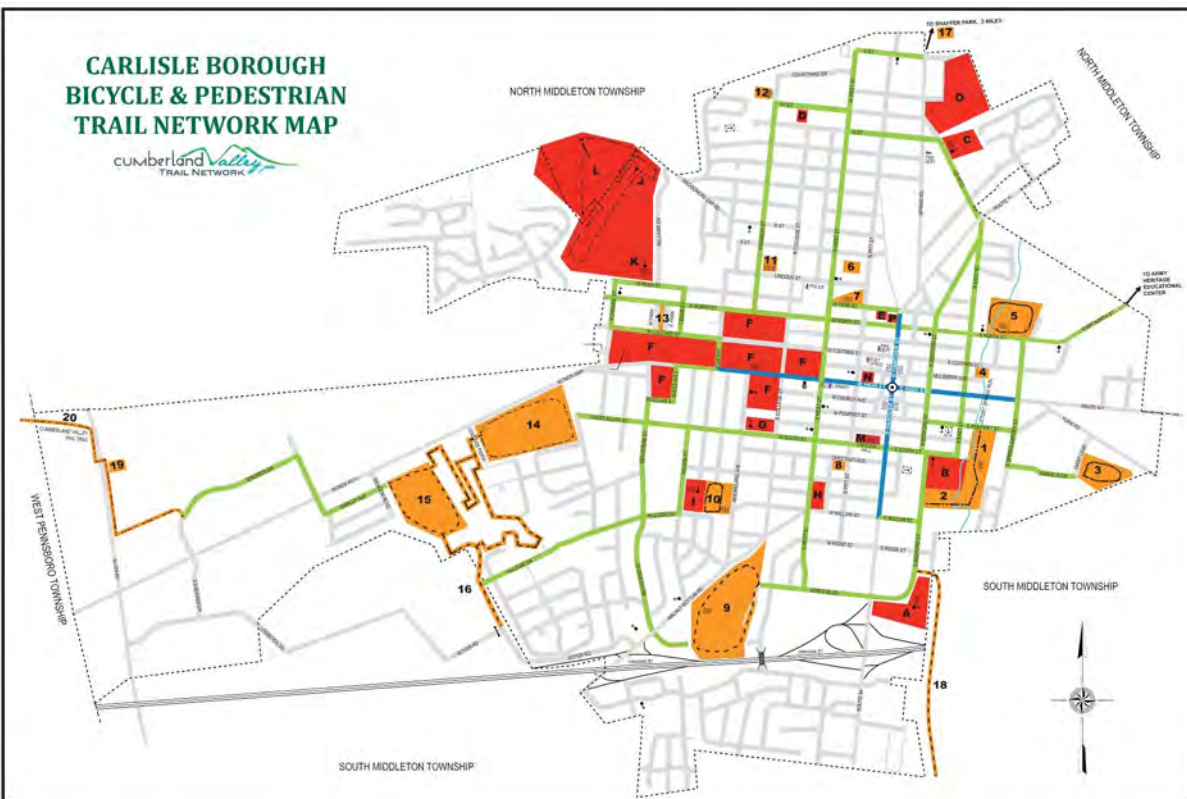
Description: A new connector road is being constructed between Trindle Road and York Road as part of a major land development. This connector road includes an 8' wide path for pedestrians and bicycles to utilize. The development will consist of residential and commercial properties.

Carlisle Borough and Regional Trail Connections—Cumberland Valley Rail Trail / West End Trail and Letort Trail

Description: Carlisle Borough is a key destination for walking and biking trips, particularly within the northern part of South Middleton Township. As shown on the map below, the Borough has extensive existing and planned bicycle and pedestrian network. There are several key connections to the regional trail network in Carlisle Borough. The Cumberland Valley Rail Trail that is an east-west regional trail spine planned to connect Carlisle and Shippensburg. There is a Cumberland Valley Rail Trail trailhead and connection to the West End Trail along Allen Road in the Borough. The West End Trail provides a connection and currently terminates at Shearer Drive. There are existing sidewalks and an identified bike route along Shearer Drive, Industrial Drive, and Shirley Avenue to provide a connection to trails within Valley Meadows Park and the Forbes Path. Providing a trail or connection along Royer Road to Walnut Bottom Road will help to complete a connection between South Middleton Township and the Cumberland Valley Rail Trail. Additionally, there may be opportunities to coordinate with Carlisle Borough to provide a connection between the Letort Trail and Cumberland Valley Rail Trail following existing sidewalks, trails, and bike routes.

Connections: Carlisle Borough; Cumberland Valley Rail Trail; West End Trail; Valley Meadows Park; Forbes Trail; Walnut Bottom Corridor; Letort Trail

Considerations: Coordinate with Carlisle Borough regarding potential improvements to Royer Road between Walnut Bottom Road and Forbes Path. Also, consider coordinating with the Borough and Cumberland County regarding wayfinding signage for the connection to the Cumberland Valley Rail Trail.



Educational Facilities & Other Points of Interest

- | | |
|---|---|
| A. Lamberton Middle School | L. Mooreland Elementary School |
| B. LeTort Elementary School | J. Wilson Middle School |
| C. Hamilton Elementary School | K. Carlisle Area High School |
| D. YWCA | L. Carlisle Area School District Cross Country Course (3.1 miles) |
| E. Carlisle C.A.R.E.S. | M. Carlisle Borough Hall |
| F. Dickinson College | N. Cumberland Valley Visitors Center |
| G. Penn State's Dickinson School of Law | O. Carlisle Fairgrounds |
| H. YMCA | P. Carlisle Area Chamber of Commerce |

Color Legend

- Bike Route
- On-Street Bicycle Lanes
- Parks/Trails
- Schools/Points of Interest

Key

- School
- Place of Worship
- Cemetery
- Community Services
- Bike Rack
- Trail Location

Advanced Shared Roadways

Road cycling is a popular recreational activity for both residents and visitors in south-central Pennsylvania, including South Middleton Township. On-road cycling is particularly popular in the township given the scenic character and the cluster of nearby local, regional, and national recreational resources and amenities. South Middleton roadways are used by individual cyclists, as well as groups of cyclists, for both short and long distance rides.

This plan identifies several corridors that are frequently utilized by confident, experienced road cyclists for recreational cycling. These corridors are designated as Advanced Shared Roadways and depicted on the Active Transportation Network Map. Some common characteristics of these corridors include:

- Speed limits of 35 miles per hour or higher
- Low to moderate traffic volumes of 2,000—5,000 vehicles per day
- Relatively narrow shoulders (typically less than 3 feet)
- Limited ability to widen shoulders or provide dedicated on-road or off-road bicycle facilities for a long distance (without significant capital investment)
- Connections to other key corridors or destinations for longer distance cycling
- Not typically used or recommended bicycle routes for casual, utility, or inexperienced cyclists

Since it is generally not feasible (or desirable) to provide dedicated on-road or off-road bicycle facilities along these corridors, cyclists will continue to utilize and share the roadway with motor vehicles. However, there are opportunities to improve conditions for on-road cycling.

The primary goals for identifying the Advanced Shared Roadways in this plan are outlined below.

- **Improve safety for motorists and cyclists:** Low-cost improvements and routine maintenance activities focused along Advanced Shared Roadways can improve safety and reduce conflicts between motorists and cyclists.
- **Increase awareness:** Signage along the Advanced Shared Roadways can increase awareness of shared use facility to alert and warn motorists of the potential presence of cyclists.
- **Educate all roadway users:** Public outreach and education for both cyclists and motorists can help ensure that motorists know how to keep cyclists safe and that cyclists know how to keep themselves visible to motorists.
- **Guide investments:** Investments in capital projects and maintenance programs can be prioritized for Advanced Shared Roadways, which are used more frequently by cyclists. Additionally, improvements can be

Target Users



Advanced Cyclist

Benefits

- Improve safety with low-cost measures along selected corridors where it is not feasible or desirable to provide dedicated bicycle facilities
- Increase awareness of on-road cycling
- Educate all roadway users about measures to increase safety for shared roadways

considered and incorporated as part of programmed roadway reconstruction, resurfacing, or other maintenance. The township can coordinate with PennDOT regarding improvements and maintenance for state owned roadways.

Strategies

The strategies presented below may be considered to improve safety and awareness on the Advanced Shared Roadways. These strategies can be applied at specific locations or along the corridors. Additionally, these strategies can be used in combination to address some of the key issues associated with shared roadways.

Signage

There are both regulatory and warning signs that can be posted at select locations along the Advanced Shared Roadways. Regulatory signs shall be used to inform road users of selected traffic laws or regulations and indicate the applicability of the legal requirements. Warning signs call attention to unexpected conditions on or adjacent to a highway, street, or private roads open to public travel and to situations that might not be readily apparent to road users. The use of warning signs is based on engineering study or engineering judgement to choose the appropriate application. Outlined below are several signs that may be appropriate for Advanced Shared Roadways. Specific requirements associated with these signs and additional signs are included in the Manual for Uniform Traffic Control Devices, 2009 Edition and PennDOT Publication 236.

- **Bicycles May Use Full Lane (R4-11)** - The Bicycles May Use Full Lane (R4-11) is a regulatory sign that may be used on roadways where no bicycle lanes or adjacent shoulders usable by bicyclists are present and where travel lanes are too narrow for bicyclists and motor vehicles to operate side by side.
- **Bicycle Warning (W11-1)** - The Bicycle Warning (W11-1) can be used at locations of a crossing or where a designated bicycle trail crosses a roadway.
- **Share the Road Sign (W16-101)** - The Share the Road Sign (W16-101) is a warning sign that may be used to alert motorists to the presence of cyclists. They can be used on roadways where bicyclists will likely travel on the roadway and the roadway is used as a cycling route.

Shoulder widening

Most of the Advanced Shared Roadways have very minimal shoulders. There may be opportunities to widen shoulders, either in select locations or along a corridor. Select locations where shoulder widening might be most appropriate and beneficial include areas with horizontal curves, hills, or high levels of cycling activity. Modest shoulder widening will provide more space for shared use of the roadway to increase safety and comfort for cyclists. Some shoulder widening can be done in conjunction with roadway resurfacing.

Select Bicycle Signage—MUTCD



R4-11



W11-1



W16-101

South Middleton Township can monitor the approval of new bicycle related signs in Pennsylvania for use on Advanced Shared Roadways.

Improvements at intersections, crossings, and pinch points

There are intersections or other locations along the Advanced Shared Roadways that may be more challenging for cyclists to navigate. Improvements at intersections, pinch points, as well as bicycle or trail crossings may be appropriate. Intersection improvements could include minor roadway or shoulder widening, signage, or pavement markings.

Traffic calming measures

Since speed limits and travel speed tend to be higher along Advanced Shared Roadways, traffic calming measures can be used to slow traffic (to the posted speed limit) and create a safer and more comfortable environment for biking. Gateway medians can provide a visual cue to the driver to indicate a change in the corridor character or context. For example, gateway medians may be appropriate when approaching a village or more developed area.

Speed Enforcement

South Middleton Township does not have its own police force, and instead relies on the service of the Pennsylvania State Police. While speed enforcement is a function of the police, the township has less control over when, where, and how enforcement is implemented in the township. However, close coordination with the State Police can identify priority speed enforcement locations along the Advanced Shared Roadways.

The township can also take a proactive approach by installing electronic radar speed signs in locations on township roads where speeding is a known issue, and working with PennDOT to install radar speed signs on state roads. Electronic radar speed signs can be temporary or permanent and display road users current speed as they approach. While this is not direct speed enforcement, it can make drivers aware when they are traveling above the posted speed limit and help to reduce overall speeding.

Routine and regular roadway maintenance

Performing routine roadway maintenance, including street sweeping and clearing of roadside vegetation, can help to provide an unobstructed travel way and smooth riding surface for cyclists. Additionally, Advanced Shared Roadways may not be appropriate for seal coating (also known as oil and chip).

Educational materials for residents

The township can share information with residents about driving and biking on shared roadways. The township website, newsletter, and social media channels are existing outlets and opportunities to share information and educate residents. For example, motor vehicles must allow 4 feet of distance when overtaking a bicycle and travel at a careful and prudent speed. It is the motorist's responsibility to provide the distance. PennDOT and other organizations have materials that might be available for educational purposes.



PennDOT Twitter Image (2020)

Park Road (SR 2003)

Existing Conditions

- Two 11' travel lanes with 3' to 5' wide shoulders
- 50 MPH
- ADT: 3,600
- State owned road
- East-west connection: Boiling Springs, South Middleton Park, Mt Holly Springs Borough

Most Appropriate Strategies

- Signage (Share the road)
- Evaluate reducing the speed limit
- Provide consistent and wider shoulders, possibly as part of future roadway resurfacing
- Traffic calming

Old York Road (SR 174)

Existing Conditions

- Two 11' travel lanes with minimal shoulders (1' or less)
- 40 MPH
- ADT: 2,000-4,000
- State owned road
- East-west connection

Most Appropriate Strategies

- Signage (Share the road, crossings, and other roadway conditions)
- Shoulder widening in select locations
- Intersection / Crossing improvements
- Traffic calming, particularly between the future LaTort Trail, Spring Meadows Park, and Boiling Springs

Petersburg Road

Existing Conditions

- Two 10' travel lanes with minimal shoulders (1' or less)
- 40 MPH
- ADT 2,100
- Township owned road
- North-south connection

Most Appropriate Strategies

- Signage (Share the Road)
- Regular maintenance, including vegetation clearing and providing a smooth riding surface

Rockledge Drive

Existing Conditions

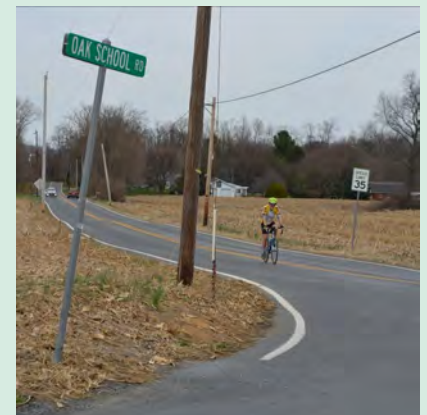
- Two 10' travel lanes with no shoulders
- 35 MPH
- Low traffic volumes
- Township owned road
- North-south connection: Carlisle; Walnut Bottom Corridor, Mt Holly Springs Borough

Most Appropriate Strategies

- Signage (Share the Road)
- Regular maintenance, including vegetation clearing and providing a smooth riding surface

Secondary Shared Roadways

There are other roads in the township used by cyclists that don't have the higher traffic volumes and speeds associated with the Advanced Shared Roadways. The low volume and speeds make these secondary roadways attractive alternatives to the Advanced Shared Roadways, and often provide safer "short cuts" from one destination or route to another. Examples of those roadways include Bonnybrook Road, Lerew Road, Mountain Road, Oak School Road, Adams Road, West Pine Street, Springville Road, and Lindsey Road. Consideration should be given to placement of sharrows or shared lane markings, as well as signage, to emphasize to drivers of vehicles to keep alert for bicyclists.



Safe Pedestrian/Trail Crossings

Roadway crossings are an important part of the pedestrian and bicycle network. There are many locations where pedestrians or cyclists must cross public roads, and it is paramount that these crossings are safe for all users. It is important that motorists are able to see and detect pedestrians and cyclists at an adequate distance, and that pedestrians and cyclists are able to see oncoming traffic in both directions in order to cross safely.

Crossings include both trail crossings and crosswalks. Trail crossings are commonly located away from roadway intersections. However, they may be located within intersections. Many trail crossings are noted by roadside navigational signing, and the primary users of the trail depend on various factors, such as the trail surface and connections. Crosswalks are typically (but not always) located at roadway intersections, and serve to facilitate pedestrian access along roadways, whether or not sidewalks are present. Crosswalks can be marked using white roadway markings or unmarked. Although similar, trail crossings and crosswalks present distinct safety issues and may require differing approaches to improving safety.

For South Middleton Township, many trail crossings are located in places that motorists are not expecting to see pedestrians or cyclists—away from other established intersections or in rural areas with typically minimal pedestrian activity. The roadways being crossed may not themselves be frequent active travel corridors. Furthermore, many trails are difficult for motorists to detect from a distance, as the trails and trail users may be hidden by high grass, trees, or other vegetation. Improving safety at trail crossings helps to protect vulnerable pedestrians and cyclists and alert motorists to the presence of a potential hazard. Trail crossings are characterized in the AASHTO Guide for the Development of Bicycle Facilities, 4th Ed. (2012) as:

“A crossing is considered mid-block if it is located outside of the functional area of an adjacent intersection. In some respects, a mid-block shared use path crossing can be considered as a four-leg intersection. A sidepath crossing occurs within the functional area of an intersection of two or more roadways...Sidepath crossings are typically parallel to at least one roadway.”

Crosswalks present their own unique challenges. Motorists are required to yield to pedestrians in marked or unmarked crosswalks. However, this yield behavior is not always observed, particularly at unmarked crosswalks. Motorists who are turning left or right may not be attentive to the possibility of pedestrians within the crosswalk that they are turning into. Parked vehicles or foliage can reduce visibility at crosswalks for both pedestrians and motorists. Improving safety at crosswalks is a matter of educating motorists and pedestrians about safe behavior at crossings and incorporating design solutions that improve crosswalk visibility. Crosswalks are defined in the PA Motor Vehicle Code Title 75 Chapter 102:

Target Users



Active Walker/Jogger

Hiker



Leisure Walker

Casual Cyclist



Confident Cyclist

Benefits

- Improve safety at selected locations for sidewalk and trail users
- Increase awareness of trail crossings
- Educate all roadway users about measures to increase safety at roadway crossings

(1) That part of a roadway at an intersection included within the connections of the lateral lines of the sidewalks on opposite sides of the highway, measured from the curbs or, in the absence of curbs, from the edges of the traversable roadway; and, in the absence of a sidewalk on one side of the roadway, that part of a roadway included within the extension of the lateral lines of the existing sidewalk.

(2) Any portion of a roadway at an intersection or elsewhere distinctly indicated for pedestrian crossing by lines or other markings on the surface.

This plan identifies several locations within the township where there are currently existing crossings or proposed new crossings of public roads, which are depicted on the Active Transportation Network Map as “Improved Crossings.”

Key Considerations

Crosswalks are typically present at intersections and operate in conjunction with motorized traffic. Although trails are not used by motor vehicles, all trail crossings are considered to be intersections. Considering them as intersections helps to better conceptualize what strategies can be used to improve safety and how they should function from an operational perspective.

PennDOT has developed design guidance for crossings in PennDOT Publication 46, *Traffic Engineering Manual*. There are separate guidelines for standard intersection crosswalks and mid-block crosswalks. These guidelines and requirements are very helpful in developing improvement strategies and ensuring elements that will enhance safety are present. Primary concerns raised include speed of roadway, traffic volume, and sight distance.

Strategies

The strategies presented below may be considered to improve safety and awareness at pedestrian and trail crossings. Additionally, these strategies can be used in combination to address some of the key issues associated with crossings.

Design-Related Strategies

Many of the strategies for improving safety at crossings stem from the physical design of the crossing. Enhancing visibility of the crossing so that it is more easily spotted by motorists is an essential step for improving safety. The primary methods of improving visibility of the crossing itself are presence of easily visible signs and pavement markings. Prominent yellow or fluorescent yellow-green warning signs can be placed at the crossing itself to ensure that the crossing is visible from a distance. Smaller delineators can be used to mark the edges of a trail. Installing white crosswalk markings in the area of the crossing can further enhance visibility of the crossing.

Although visibility of the crossing itself is important, alerting motorists to the presence of an upcoming crossing through advance warning signs is also useful. These advance warnings serve to reduce the possibility of a motorists being surprised by pedestrians or cyclists crossing the roadway and prompt motorists to slow down and actively look for the crossing and anybody using it. These signs are especially useful at crossings located in areas with somewhat limited sight distance.

Signs commonly used at crossings depend on the primary expected user of the crossing, and include:

- **Pedestrian Crossing (W11-2)** - The Pedestrian Warning (W11-2) can be used at locations of a crossing, often accompanied by a downward arrow plaque (W16-7P) indicating precise location.
- **Bicycle Warning (W11-1)** - The Bicycle Warning (W11-1) can be used at locations of a crossing or where a designated bicycle trail crosses a roadway.
- **Combination Bicycle and Pedestrian Crossing (W11-15)** - The Combination Bicycle and Pedestrian Crossing (W11-15) can be used in locations where both bicycles and pedestrians are expected to be present. The added optional Trail Crossing plaque (W11-15P) can help reinforce the message that a trail crossing is present.

These signs can be used with the color scheme as shown in yellow, but they may also use a fluorescent yellow-green background that is more commonly associated with pedestrians. When placed in advance of a crossing, they can be supplemented with a distance plaque (W16-2P) showing how far (in feet) the crossing is located ahead.

Another option are pedestrian refuge islands. A pedestrian refuge island is a raised area located between two opposing lanes of traffic which provide a location for pedestrians to stop in the middle of the roadway and make a two-stage crossing. They are especially useful in areas where the roadway is too wide to cross in one stage, or when it is difficult to find a gap in traffic in both directions at the same time. They also serve to simply make crossing easier, as pedestrians only have to look for traffic in one direction instead of both simultaneously.

In addition to the presence of high visibility signs or pavement markings, installation of flashing beacon or warning device can help call additional attention to the fact that there is a user at the crossing. While signs and pavement markings are static and always present, the beacon serves to heighten motorist awareness that not only is a crossing present, but that a user is in the roadway or about to enter.

Improving visibility from the crossing is also important. Those wishing to cross at a crosswalk or trail crossing need to be able to see far enough down the roadway in both directions to ensure that they can cross safely. Common sight distance obstructions include foliage or parked vehicles.

Select Crossing Signage—MUTCD



W11-2



W11-1



W11-15

Prohibiting on-street parking immediately adjacent to intersections and regularly cutting back obstructing foliage can improve the ability of crossing users to see and safely avoid oncoming motorized traffic.

Lastly, it is important that crossings are accessible to their intended users and compliant with the Americans with Disabilities Act (ADA). Design elements that enhance accessibility include the use of curb ramps, tactile pavers, and audible beacon signals, allowing users with mobility and sight impairments to cross safely.

These strategies and others as appropriate can be incorporated as standard practices through adoption and modification of township ordinances. Specific recommendations are made in Chapter 4.

Coordination with PennDOT

Several of the locations included as candidates for improved trail crossings are located on state owned roadways. Development of any improvements along state right-of-way will require coordination with PennDOT, particularly regarding installation and maintenance of any signs or pavement markings located within state right of way.

Speed Limits

High speed limits along roadways being crossed present a significantly increased risk to those needing to cross. The relationship between speed and the likelihood of a serious injury or fatality for a pedestrian or cyclist is well-documented. PennDOT does not recommend construction of mid-block crosswalks on roadways with a speed limit higher than 35 MPH. Traffic calming strategies to reduce traffic speeds in the areas around crossings is an important step to improving safety. For state owned roadways, modifying speed limits will require close coordination with PennDOT and must be done in a way that does not inadvertently increase hazard. Sudden or large reductions in speed limits can create safety issues if motorists are not prepared to slow down.



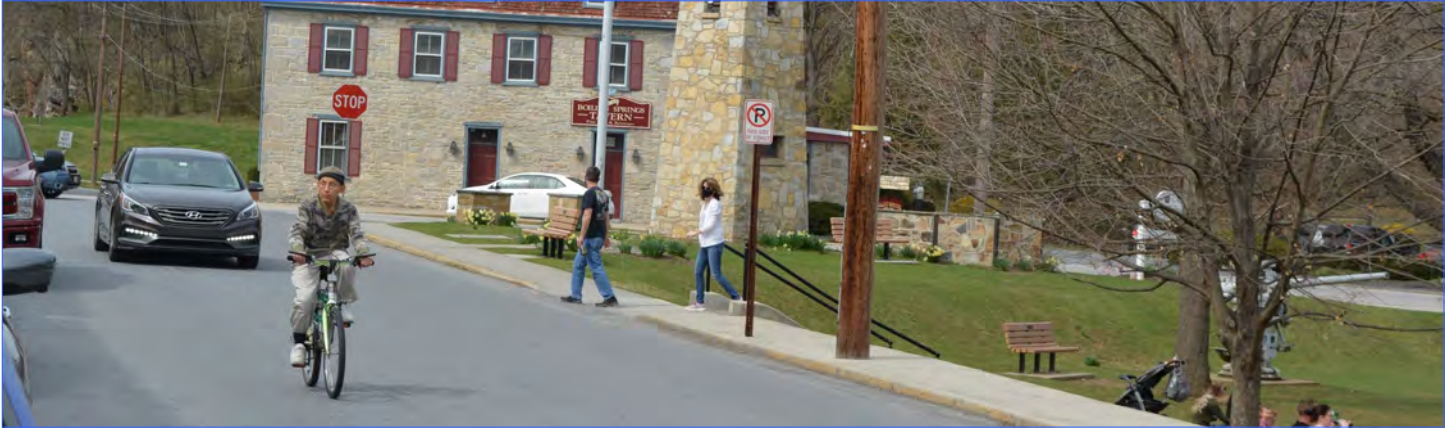
Rectangular Rapid Flashing Beacon (RRFB) and In-Street Pedestrian Crosswalk Sign in Malvern, PA

PennDOT has additional resources and information about pedestrian safety. Visit penndot.gov and search: "[Pedestrian Safety](#)"

Early Action

South Middleton Township is in the process of improving two important crossings in the township. The township is designing improvements for a mid-block crossing of 1st Street (S.R. 174) to connect the Appalachian Trail and other trails around Children's Lake and the Bubble. This is part of Phase 1 of sidewalk improvements in Boiling Springs. Additionally, the township will be constructing a marked crosswalk of S.R. 174 at Woodburn Drive to connect the residential neighborhood and school campus on the north side with Spring Meadows Park on the south side.

4 | Policies and Programs



Township Policy Review

In addition to constructing new infrastructure, updating municipal policies can help to implement the achieve the vision and goals of this plan. The Subdivision and Land Development Ordinance (SALDO) and other policies for South Middleton Township were reviewed to identify how active transportation themes are currently addressed. The table below provides a general indication of how well these themes are addressed in the current ordinances. Each theme is categorized as, “updates encouraged or adoption of standards encouraged.”

Updates Encouraged	Ordinances include some policies or standards that could be updated or expanded.
Adoption of Standards Encouraged	Ordinances do not include policies or standards.

Theme	Recommendation
Off-Road Infrastructure	
Sidewalks	Updates Encouraged
Paths/Trails	Adoption of Standards Encouraged
On-Road Infrastructure	Adoption of Standards Encouraged
Pedestrian and Trail Crossings	Adoption of Standards Encouraged
Traffic Calming Measures	Adoption of Standards Encouraged
Transportation Impact Study Requirements	Updates Encouraged
Official Map	Updates Encouraged
Capital Improvements Plan	Adoption of Standards Encouraged

This review can serve as the basis for determining how the ordinance can be updated to better address active transportation from a policy perspective. The following recommendations address general regulatory deficiencies. These recommendations give an introduction to how these themes can be regulated by South Middleton Township. Further, customized research and drafting of ordinance language will be needed to incorporate these recommendations into municipal codes.

Terminology

It may be useful to define active transportation related terms in municipal ordinances. Defining terms in the municipal code ensures that all parties are in agreement as to what a specific facility is and is not. The Active Transportation Toolbox in this document can serve as a starting point for developing definitions for municipal ordinances.

Design Standards

Active transportation elements can be incorporated into the design standards. At a minimum, the design standards should include the following:

- Where a feature is required.
- When a feature is required.
- The dimensions of the feature and its elements, including minimum and/or maximum dimensions.
- Any additional design or construction requirements.

The design standards may include references to accepted design standards or build specifications that have also been adopted by the municipality.

Summarized below are the issues identified based on the review of the township ordinances related to active transportation and recommendations to address these deficiencies.

Off-Road Infrastructure

Sidewalks

The South Middleton Township SALDO does require sidewalks to be installed in some zoning districts within the Growth Boundary. This is appropriate given the context of the township. Sidewalks are required to be within the street right of way and it is specified that they must be at least five feet in width. However, the ordinance lacks a definition for a sidewalk. South Middleton Township should consider:

1. Adopting a definition for sidewalks; and
2. Referencing current ADA standards for the design of sidewalks.

In the past, the township has granted sidewalk waivers for some projects during the land development approval process. Waivers were often granted when the sidewalk would not provide a meaningful or useable connection in the near-term. In some cases, sidewalks along the frontage of a property would be very short and isolated with no connections to other sidewalks or pedestrian facilities. However, in granting the waiver, the township has retained the ability to require property owners to install the sidewalk at a later date. Here is an example of the sidewalk waiver language:

The owners of these lots, upon notification by South Middleton Township, shall be responsible for the construction of Curbs and Gutters, and Sidewalks, to Township specifications within six (6) months of the date of such notification. The cost of this installation shall be at the Owner's expense. The Township shall not be responsible for any costs.

Prior to undertaking any significant capital improvement projects to install sidewalks, the township should check prior land development approvals in the area to determine if any sidewalk waivers were granted in the past. In areas where waivers were granted and the sidewalk construction was deferred, the township can coordinate with the property owner to install sidewalks when a useful connection can be provided.

Additionally, the township can consider developing a map and inventory of previously granted sidewalk waivers, particularly for areas where new sidewalks are proposed in this plan. This includes the Boiling Springs and Walnut Bottom areas.

Paths and Trails

Trails are mentioned under the Street Tree and Environmental Impact Assessment requirements in the SALDO. However, the ordinance does not provide an adequate definition for trails, and minimum widths and design standards are not identified. South Middleton Township should consider:

1. Adopting a definition for trails and paths;
2. Referencing specific plans (including this Active Transportation Plan) for where trails and paths should be constructed; and
3. Including standards for the width, construction, and design of trails and paths based on the anticipated use of the proposed facility. Reference the Active Transportation Toolbox in this plan for guidance.

On-road and Bicycle Infrastructure

Bicycle circulation is mentioned under the required contents of Traffic Impact Studies in the SALDO. However, there is no mention of the various facility types that could be essential to completing gaps in the active transportation network. The township should consider:

1. Adopting definitions for on-road active transportation infrastructure;
2. Referencing specific plans (including this Active Transportation Plan) for where on-road facilities should be constructed;
3. Including standards that are consistent with nationally accepted and statewide guidelines for on-road active transportation features; and
4. Include bicycle parking requirements, particularly for commercial uses.

Pedestrian and Trail Crossings

A crosswalk is any portion of a roadway at an intersection or elsewhere designated for pedestrian crossing, typically by lines or other pavement markings. Crosswalks can be located at an intersection or a midblock location. Additionally, crosswalks can be marked or unmarked. Trail crossings are considered to be intersections, so the definition and design treatments differ from crosswalks. Crosswalks are not defined in the South Middleton Township

SALDO. Also, the ordinance does not include any design standards for crosswalks. South Middleton Township may consider:

1. Adopting a definition for trail crossings;
2. Incorporating appropriate design standards and guidelines, including ADA and the Manual on Uniform Traffic Control Devices (MUTCD);
3. Requiring the evaluation of crosswalks and trail crossings as part of the land development process; and
4. Adopting uniform standards for the type of crosswalks to be painted (parallel lines, diagonal hatching, or perpendicular) based on the functional classification of the roadway and other criteria.

Traffic Calming Measures

Traffic calming measures include physical changes to a roadway in order to reduce speeds and cut-through traffic. Traffic calming measures can be implemented in conjunction with bicycle and pedestrian infrastructure to slow traffic and create a safer and more comfortable environment for walking and biking. The Active Transportation Toolbox includes several common traffic calming measures. Additionally, PennDOT's Traffic Calming Handbook (Publication 383) provides details regarding the appropriate placement and design of traffic calming measures.

The Township may consider incorporating traffic calming measures into the SALDO by:

1. Adopting definitions for common measures, such as speed humps, curb extensions, and medians/pedestrian refuge islands.
2. Requiring evaluation of traffic calming as part of the land development process, particularly for residential streets.

Transportation Impact Study Requirements

South Middleton Township, like many municipalities, requires the preparation and submission of a traffic impact study as part of the land development approval process. Applicants are required to address bicycle and pedestrian circulation within the Transportation Impact Study. However, the requirements are mostly geared toward evaluating and mitigating traffic capacity. Mitigating traffic impacts by providing more travel lanes can induce more traffic, reduce the ability of people to use non-auto modes because of wider and busier roadways, and make it more expensive to develop in desirable locations. The requirements for transportation impact studies can be expanded to consider a broader range of transportation options and more balanced strategies to address transportation impacts.

Existing Conditions Analysis

The current TIS requires descriptions and documentation of all existing and proposed elements of the transportation system, including pedestrian infrastructure; bicycle infrastructure; and public transit routes, stop locations, and service. The TIS should require a review of all Township plans, including the Official Township Map and Active Transportation Plan.

Early Action

The Township worked with the developer of the Georgetowne Subdivision, just north of Boiling Springs, to provide a raised intersection and realigned intersections on the main route through the subdivision. The traffic calming measures will reduce speeds and deter "cut-through" traffic in a residential neighborhood. A direct pedestrian route to the high school campus is also being provided as part of the land development.

Future Conditions Analysis

Additional clarification is needed to identify bicycle, pedestrian, and transit improvements as required by the TIS. The TIS should require that proposed improvements shall consider all roadway users, including motorized vehicles, bicyclists, and pedestrians.

Alternative Transportation Plan

South Middleton Township may adopt a practice whereby major developments are required to submit an Alternative Transportation Plan. This plan should be completed in concert with a transportation impact study. There are a variety of criteria that could be considered for when an Alternative Transportation Plan must be prepared, such as zoning district, size of the development, and functional classification of the roadway. The Alternative Transportation Plan can be used to identify multimodal (bicycle, pedestrian, future public transit) infrastructure improvements and Transportation Demand Management (TDM) measures to offset the traffic impacts associated with the proposed development. The developer may choose to implement any or all of the improvements identified in the Alternative Transportation Plan to receive trip reduction credits. The trip reduction credit percentages require approval by the municipality's governing body with guidance from a professional traffic engineer and agreed upon by PennDOT (for state owned roadways). Trip reduction credits could be applied to the transportation impact study to determine the required roadway improvements. However, for state owned roadways under PennDOT's jurisdiction, Alternative Transportation Plan's cannot be used as justification for any roadway or intersection to go unimproved through the land development process or for any roadway or intersection to operate below an acceptable LOS during the peak condition. Additionally, all requirements under the current PennDOT HOP process must be met.

Official Map

South Middleton Township has adopted an Official Map to express the municipality's interest in acquiring identified land for future public purposes. The recommended improvements of this Active Transportation Plan, including the proposed sidewalks and trails, should be incorporated into the Official Map.

Capital Improvement Plan

Municipalities can adopt a Capital Improvement Plan to budget for maintenance and replacement of existing infrastructure and construction of new facilities. It identifies short and long term priorities to help schedule capital improvements, and it identifies potential funding or financing options for the identified improvements. South Middleton Township does not currently have an adopted Capital Improvement Plan, but does plan for infrastructure investments as part of the township's annual budgeting process. A longer term Capital Improvement Plan could include a wide range of infrastructure needs and plan for long term and strategic investments.

Programs that Support Active and Healthy Lifestyles

There are a number of programs that can support active transportation in South Middleton Township. Beyond building new infrastructure, these initiatives can create an atmosphere and attitude that encourages walking and biking, and they can give people the tools and confidence to remain active in the community.

Trail Town

South Middleton Township has unique recreational resources that make it a desirable place to both live and visit. The Appalachian Trail, Yellow Breeches Water Trail, Michaux State Forest, and Letort Trail attract visitors from central Pennsylvania and across the country to South Middleton Township to walk, hike, bike, and kayak. There is an opportunity to provide visitors with information, connections, and basic amenities to make the township an inviting destination. Boiling Springs is designated an Appalachian Trail Community by the Appalachian Trail Conservancy. The Appalachian Trail Community program recognizes communities that are committed to preserving, promoting, and protecting the Appalachian Trail, and it supports tourism and outdoor recreation as positive economic activities in the communities. Being a trail town or destination for recreation can help to support local businesses and economic development. Boiling Springs is a location where basic amenities, such as bicycle racks and fix-it stations, can make it convenient for visitors to stop and visit a café, shop, or restaurant. The township can work with local businesses, Cumberland County Visitors Bureau, and other partners to promote South Middleton Township as a trail town.



PennDOT Connects

The PennDOT Connects program provides an opportunity for municipalities to coordinate with PennDOT, Cumberland County, and other planning partners during the implementation of maintenance and capital improvement projects. This coordination is vitally important to advancing community visions.

Increased communication and coordination, during the pre-planning phase is critical for active transportation plan implementation moving forward. It is the local and county governments opportunity to raise awareness of their local pedestrian and transportation priorities/plans. It is critical that local representatives as well as other community stakeholders, have the opportunity for input prior to expending resources on engineering/permitting costs.

Complete Streets

Complete Streets are streets that are designed, operated, and maintained to provide safe access for all users. Complete Streets policies are documents that identify procedural approaches to designing and maintaining roadways that serve the needs of all users. Effective Complete Streets policies identify parties responsible for ensuring that Complete Streets principles are considered during the design process for all transportation improvement projects. The township could consider developing a Complete Streets policy or formalize practices to consider bicyclists, pedestrians, and the needs of all users as part of all transportation improvement projects.

Vision Zero

Vision Zero is a strategy to eliminate all traffic fatalities and severe injuries, while increase safe, healthy, and equitable mobility for all users. Vision Zero involves a multidisciplinary and systems approach to improve policies and roadway environments to prevent fatal and severe crashes. This involves a shift from considering traffic deaths inevitable rather than preventable and focus on managing speeds. Municipalities can make a Vision Zero Commitment and develop a Vision Zero Action Plan to outline steps, metrics, and a timeline to achieve zero traffic deaths in the community. In Pennsylvania, Bethlehem, Harrisburg, and Philadelphia have made a commitment to Vision Zero.

Enforcement Programs

South Middleton Township does not have its own police force, instead relying on service of the Pennsylvania State Police. One of the key bicycle and pedestrian safety and enforcement issues is vehicular speeding. In addition to coordinating with the State Police on targeted speed enforcement, the township can also consider expanding use of electronic radar speed signs. This concept is covered in more detail under Advanced Shared Roadways in Chapter 3.

Education and Encouragement Programs

Educating people about the health and safety benefits of walking and biking and encouraging people to walk and bike may help to increase walking and biking activity. The following list includes potential activities and events that could be held to promote and raise awareness for active transportation. The activities could incorporate education, exercise, art, history, nature, recreation, and fun for all ages. The township may need to revise or update ordinances and requirements for holding special events, particularly for street closures.

- Beautification / Clean-up events
- Bike lessons for kids and adults
- Bike rodeos for kids
- Block parties / Free street events
- Boiling Springs walking tours
- Public art installations (temporary or permanent)
- Charity walks / Running races / Bike races / Triathlons
- Trail Opening Events
- Walk / Bike tracking and challenge activities
- Walk / Bike to Work Events
- Walk / Bike to School Events
- Educational nature walking/hiking events

South Middleton Township's Parks and Recreation Department already offers a wide variety of programs. The Department could assist with promoting active transportation related education and activities. Additionally, volunteers

who are interested and invested in active transportation can play a key role in implementing programs, as well as advocating for projects and policies. Some of the most successful programs are developed as a partnership between various organizations.

The township can share information with residents about driving and biking on shared roadways. The township website, newsletter, and social media channels are existing outlets and opportunities to share information and educate residents. For example, motor vehicles must allow 4 feet of distance when overtaking a bicycle and travel at a careful and prudent speed. It is the motorist's responsibility to provide the distance. PennDOT and other organizations have materials that might be available for educational purposes, including educational videos and graphics. Additionally, the township could help to develop and distribute specific educational materials to promote safety on shared roadways, such as yard signs, magnets, bumper stickers, or bicycle lights.

Routine and Regular Maintenance

Active transportation infrastructure requires routine and ongoing maintenance. Some maintenance may be related to seasonal conditions, such as clearing snow and ice or overgrown vegetation. Sidewalks, paths, and trails may require minor repairs and occasionally full replacement. The township should consider updating policies to address minor maintenance responsibilities. Additionally, the township should consider financial planning and budgeting for annual maintenance and future repairs or replacement of infrastructure.

For roadways, street sweeping and clearing of roadside vegetation, can help to provide an unobstructed travel way and smooth riding surface for cyclists. This maintenance should be focused on the Advanced Shared Roadways identified in Chapter 3. However, proper roadway maintenance of all township owned roads contribute to overall roadway performance for all users.

There may be opportunities for the township to coordinate and work with PennDOT regarding maintenance of state owned roadways in the township. For example, PennDOT's Agility Program enables PennDOT to exchange services and equipment without monetary payments. The township may be able to provide maintenance related services on state owned roadways in exchange for PennDOT performing other services. This can lead to smoother, safer, and clearer roadways and roadsides.



PennDOT Bicycle Safety Image

5 | Achieving the Vision



This Active Transportation Plan reflects South Middleton Township’s work over many years to plan and develop an active transportation network in the township. This plan provides a blueprint for next steps to build upon previous plans and efforts to create a connected active transportation network. Achieving the township’s vision will not happen overnight, but rather through incremental changes over time. This chapter presents a summary of priority action items, including capital improvements, policy updates, and programs. This section presents those projects and outlines key action times to ensure their successful implementation. Chapters 3 and 4 provide more details about specific action items for priority projects and initiatives.

Current/Ongoing Projects

In the immediate term, South Middleton Township will continue implementing current projects and work to complete projects that are already underway.

Walkable Boiling Springs

South Middleton Township is focused on improving walkability in Boiling Springs by completing design and construction of sidewalk, pedestrian crossing, and traffic calming improvements in Boiling Springs. This includes installation of speed humps on Front Street and Race Street, Phase 1 Pedestrian Improvements along 1st Street, Children’s Lake Dam Replacement, Phase 2A Pedestrian Improvements along Front Street (north of 1st Street), and Phase 2B Pedestrian Improvements along Front Street (south of 1st Street) as outlined in Chapter 3.

Spring Meadows Park Access

The township is acquiring the necessary right-of-way and advancing design and construction of a pedestrian crossing of W 1st Street (PA 174) at Woodburn Drive to connect residents and school campus with Spring Meadows Park.

Letort Trail Extension: Spring Garden Street to Heisers Lane

The Letort Regional Authority, in partnership with South Middleton Township, are actively working on the extension of the Letort Trail between Spring Garden Street and Heisers Lane, including securing the necessary trail easements, clearing vegetation, and improving the trail surface.

Marsh Drive Loop Trail Right-of-Way

South Middleton Township is in the process of finalizing acquisition of the 100' right-of-way around the Church of God property on the south side of Marsh Drive. Dedication of this right-of-way was agreed upon as part of a conditional use approval associated with the property. Completion of this property acquisition will enable the township to advance design and construction the a recreational loop trail and possibly a trailhead.

Educational Campaign

The need and importance of educating residents and visitors on bicycle and pedestrian safety was identified as a priority through stakeholder and public input. An educational campaign is a near-term and low-cost action item to improve safety. Educating bicyclists, pedestrians, and motorists on state traffic laws can help to improve safety and reduce transportation-related injuries and deaths. For South Middleton Township, education related to motorists and bicyclists sharing the road is a top priority.

PennDOT and other organizations have educational materials and videos related to bicycle safety, which could be posted on the township's website or shared through the township newsletter or social media channels. Another strategy is to develop and distribute educational and promotional items to township residents. One initial idea is to provide yard signs that highlight the 4-foot passing law for a motorized vehicle passing a bicycle. An educational campaign is also a great opportunity for the township to partner with non-profit organizations, local businesses, or other institutions. Identifying potential partners and available resources is a key step to developing a broader educational campaign for bicycle and pedestrian safety.

Priority Connections

The table on the following page lists priority capital improvement projects, which were identified in Chapter 3. These priority projects provide key connections in the active transportation network. The table includes potential next steps and a general time frame for the action items. Most of the identified capital improvement projects will require further evaluation of feasibility and design. Community members and property owners will have the opportunity to provide input during the feasibility evaluation and design phases. Actual implementation of any improvements is dependent on a number of factors, such as feasibility, design, permitting, and availability of funding and resources. Additionally, there may be a need to implement some of the improvements in phases over time.

Priority Connection	Short-Term Actions (present—1 year)	Medium-Term Actions (1-2 years)	Long-Term Actions (2-5+ years)
Forge Road Bike Lanes	<ul style="list-style-type: none"> – Continue coordination with PennDOT regarding the speed limit reduction and planned bike lanes – Evaluate the need and feasibility of shoulder widening and improvements 	<ul style="list-style-type: none"> – Identify funding for design and construction – Initiate preliminary design 	<ul style="list-style-type: none"> – Construct improvements
Boiling Springs Gateway	<ul style="list-style-type: none"> – Evaluate the feasibility of the proposed improvements and coordinate with PennDOT, property owners, and community members 	<ul style="list-style-type: none"> – Conduct topographic survey and develop a conceptual plan of the improvements – Identify funding for design and construction 	<ul style="list-style-type: none"> – Construct improvements
Letort Trail Connections to Spring Meadows / Boiling Springs <ul style="list-style-type: none"> – Complete a feasibility study with property owner outreach to determine the preferred trail alignment 	<ul style="list-style-type: none"> – Coordinate with the Cumberland County Agricultural Land Conservation Board to identify feasibility of constructing trail on preserved farmland – Budget matching funds for a future grant application 	<ul style="list-style-type: none"> – Apply for a Cumberland County Land Partnerships Grant to fund a Trail Extension Feasibility Study – Complete the Trail Extension Feasibility Study 	<ul style="list-style-type: none"> – Identify funding for design/ construction (dependent upon Feasibility Study findings)
Craighead Connection—Old York Road Trail to Spring Meadows and Boiling Springs	<ul style="list-style-type: none"> – Focus on the extension of the Letort Trail to Craighead – Evaluate the feasibility of the proposed improvements and coordinate with PennDOT, property owners, and community members 	<ul style="list-style-type: none"> – Develop a conceptual plan of the improvements, including the trail, trail crossings, traffic calming, and connecting on-road bicycle facilities 	<ul style="list-style-type: none"> – Identify funding for design and construction
Walnut Bottom <ul style="list-style-type: none"> – Identify opportunities for the Walnut Bottom Corridor Master Plan to be implemented through the land development process (ongoing) 	<ul style="list-style-type: none"> – Identify priority segments of sidewalks along Walnut Bottom Road to fill in gaps in existing sidewalk network 	<ul style="list-style-type: none"> – Conduct topographic survey and develop a conceptual plan of the improvements – Evaluate feasibility of bicycle facilities on Walnut Bottom Road – Identify funding for design and construction 	<ul style="list-style-type: none"> – Construct sidewalk and bicycle facility improvements
Advanced Shared Roadways <ul style="list-style-type: none"> – Identify opportunities for low cost safety improvements through regular maintenance programming (ongoing) 	<ul style="list-style-type: none"> – Prioritize improvements along Park Drive to demonstrate the effectiveness of the improvements – Coordinate with PennDOT regarding future resurfacing of state roadways 	<ul style="list-style-type: none"> – Implement Park Drive improvements – Develop a strategic plan to implement Advanced Shared Roadways on remaining roadways identified in Chapter 3 	<ul style="list-style-type: none"> – Budget for future low-cost safety improvements on township roads, along with routine maintenance – Continue to coordinate with PennDOT regarding resurfacing of state roadways
Sidewalk Along Springville Road		<ul style="list-style-type: none"> – Conduct topographic survey, gather input from community members and property owners, and develop a conceptual plan of the improvements 	<ul style="list-style-type: none"> – Identify funding for design and construction – Construct improvements
Stepping Stones in Wittlinger Preserve	<ul style="list-style-type: none"> – Coordinate with Cumberland County Conservation District, PA DEP, and PA Fish and Boat Commission about feasibility of stepping stones 	<ul style="list-style-type: none"> – Identify funding for stepping stone installation – Construct improvements 	

Planning Level Cost Estimates for Early Action Projects

Planning level cost estimates were prepared for three early action projects. The cost estimates are rough approximations based on the preliminary scope of improvements and the cost of similar projects. While they are appropriate for planning and budgeting purposes, the cost estimates cannot be used for construction. Additionally, the cost estimates do not include the costs for right-of-way acquisition or utility relocations. As such, many of the improvements will require engineering studies to prepare a more detailed conceptual plan and refined cost estimates.

Forge Road Bike Lanes

Description: Pavement markings, signs, and shoulder widening/improvements for a designated bike lane along Forge Road between High Street and Westminster Drive

Design: \$125,000—\$250,000

Construction: \$2.3 million—\$2.7 million

Notes:

- Cost estimate does not include right-of-way acquisition and utility relocations.
- Cost of construction is dependent upon further feasibility evaluation, particularly related to necessary shoulder widening and improvements, drainage, and utility impacts.
- Coordination with PennDOT is required for the design and construction of the improvements. The scope and cost of improvements may be changed based on guidance from PennDOT.
- The cost of design is dependent upon requirements associated with grant funding programs.

Boiling Springs Gateway

Description: Streetscape enhancements including sidewalks, bike lanes, and on-street parking (east side)

Design: \$175,000—\$275,000

Construction: \$1.4 million—\$1.6 million

Notes:

- Cost estimate does not include right-of-way acquisition and utility relocations.
- Coordination with PennDOT is required for the design and construction of the improvements. The scope and cost of improvements may be changed based on guidance from PennDOT.
- The cost of design is dependent upon requirements associated with grant funding programs.

Old York Road Trail between Letort Trail/Craighead House and Spring Meadows Park

Description: 10' wide asphalt path along Old York Road between Spring Meadows Park and Letort Trail/Craighead House, including trail crossings.

Design: \$250,000—\$500,000

Construction:

Spring Meadows Park to Petersburg Road: \$1.3 million—\$2.1 million

Petersburg Road to Craighead: \$1.6 million—\$2.5 million

Notes:

- Cost estimate does not include right-of-way acquisition and utility relocations.
- The project can be implemented in phases. Cost estimate for design includes the trail between Spring Meadows Park and Craighead House. Cost estimate for construction is provided for two separate sections.
- Coordination with PennDOT is required for the design and construction of the improvements. The scope and cost of improvements may be changed based on guidance from PennDOT.
- The cost of design is dependent upon requirements associated with grant funding programs.

Priority Policy Updates

Chapter 4 identifies potential revisions to South Middleton Township's Subdivision and Land Development Ordinance. In particular, it identifies a need to update definitions and to incorporate design standards for active transportation supportive infrastructure. These policy updates can help to clarify responsibilities and expectations for residents, property owners, and developers. The township can also consider developing a map and inventory of previous sidewalk waivers, particularly in the Boiling Springs and Walnut Bottom areas. The township could use the inventory to plan for future sidewalk connections. Additionally, the township can consider developing a Capital Improvement Plan for a wide range of infrastructure needs, including active transportation improvements.

Measuring Success

Long-term success of the Active Transportation Plan will be measured by the completion of linear miles of new multimodal transportation facilities, the number of newly connected destinations, and enhancements to destinations. These capital improvements will not happen overnight; it will take diligent work on the part of planning partners and support of the local residents. Community leaders should update the list below periodically to check progress in implementation.

The following tables are consistent with the templates provided by the PA WalkWorks program and fulfill the reporting requirements for metrics. The length or linear miles of active transportation facilities is one measure of the size and extent of the active transportation network. The following tables present the potential length linear miles of proposed connections. The specific location of the proposed connections are presented in Chapter 3. For off-road facilities, length calculations focused on sidewalks and multi-use trails. For on-road bike facilities, the length is based on the segment of the roadway that includes the facility. (For example, bicycle lanes or advanced shared roadways on both sides along a one-mile segment of roadway is expressed as one-mile of bicycle facilities.) Additionally, the following tables list key destinations that are connected by the proposed active transportation infrastructure.

Sidewalk Metrics				
Map or Pg. No.	Priority	Project Location	Potential Linear Miles	Connected Destinations
3-18	High	Boiling Springs—Phase 1 (1st Street)	0.3	Boiling Springs; The Bubble; Children’s Lake; Appalachian Trail
3-18	High	Boiling Springs—Phase 2A (Front Street North of 1st)	0.2	Boiling Springs; The Bubble; Children’s Lake; Appalachian Trail
3-18	High	Boiling Springs—Phase 2B (Front Street South of 1st)	0.2	Boiling Springs; The Bubble; Children’s Lake; Appalachian Trail
3-21	High	Boiling Springs Gateway	0.4	Boiling Springs; The Bubble; Children’s Lake; Appalachian Trail
3-33	Medium	W Springville Road	0.8	Boiling Springs; Spring Meadows Park; Yellow Breeches Middle School; Iron Forge Elementary; Boiling Springs High School
3-33	Medium	Westminster Drive to York Road (Carlisle Borough) via Petersburg Road, Pine Street, and Spruce Avenue	0.6	Carlisle Borough; Cumberland County Assistance Office
3-29	High	Walnut Bottom Road	3.2	Walnut Bottom; Carlisle
3-29	Low	Rockledge Road	0.5	Walnut Bottom; Marsh Drive Loop Trail (future)

Multi-Use Trails Metrics

Map or Page No.	Priority	Project Location	Potential Linear Miles	Connected Destinations
3-23	High	Letort Trail Extension from Heisers Lane to Mt Holly Springs	3.2	Carlisle; Mt Holly Springs; Craighead House
3-23	High	Craighead Connection to Spring Meadows / Boiling Spring (Old York Road)	1.3	Spring Meadows Park; Boiling Springs; Craighead House
3-27	High	Wittlinger Preserve Connections	0.8	Wittlinger Preserve; Boiling Springs; South Middleton Township Municipal Park; Leaman Park
3-31	High	Marsh Drive Loop Trail	2.4	Walnut Bottom
3-31	Low	Marsh Drive and Rockledge Drive Roadside Trail	0.9	Walnut Bottom; Marsh Drive Loop Trail (future); Letort Trail (future)
3-33	Low	Trail between Letort Trail and Petersburg Road (Airport Property)	1.0	Letort Trail; Carlisle Borough; Carlisle Airport
3-33	Medium	Sidepath along Connector Road in Rose Business Park and Heritage Village	0.9	

Bicycle Infrastructure Improvement Metrics

Map or Page No.	Priority	Project Description	Potential Linear Miles	Connected Destinations
3-19 3-22	High	Forge Road Bicycle Lanes / Boiling Springs Gateway	3.0	Carlisle Borough; Boiling Springs
3-37	High	Park Road Advanced Shared Roadway	3.5	Boiling Springs; Mt Holly Springs; South Middleton Township Park; Leaman Park; Fielding Belt Trail
3-37	Medium	Old York Road Advanced Shared Roadway	5.4	Boiling Springs; Spring Meadows Park; Craighead House; Letort Trail (future)
3-37	Medium	Petersburg Road Advanced Shared Roadway	8.5	Carlisle Borough; Appalachian Trail
3-37	Low	Rockledge Drive Advanced Shared Roadway	3.2	Walnut Bottom
3-37	Low	Secondary Shared Roadways		Various

Crosswalks and Intersections Metrics

Map or Page No.	Priority	Project Description	Connected Destinations
3-44	High	Letort Trail Crossing at Spring Garden Street	Letort Trail; Carlisle; Mt Holly Springs
3-44	High	Letort Trail Crossing at Heisers Lane	Letort Trail; Carlisle; Mt Holly Springs
3-25	Medium	Letort Trail Crossing at Craighead House	Craighead House; Letort Trail
3-25	Medium	Old York Road at Bonnybrook Road	Craighead House; Letort Trail
3-43	Medium	Old York Road at Springville Road and Spring Meadows Park	Spring Meadows Park
3-43	High	West 1st St at Woodburn Drive and Spring Meadows Park	Spring Meadows Park
3-43	Medium	York Road at Appalachian Trail	Appalachian Trail
3-44	Low	Whiskey Springs Road at Appalachian Trail	Appalachian Trail
3-44	Low	Marsh Drive and Rockledge Drive	Walnut Bottom; Marsh Drive Loop Trail (future)

Programmatic and Policy Improvements

Policy/Project	Description
SALDO / Zoning Updates	Update definitions; Include design standards for active transportation infrastructure
Transportation Impact Study Requirements	Update requirements to include considerations of all modes; require Alternative Transportation Plan for large scale developments
Official Map	Update to incorporate capital improvements, particularly sidewalk and trail connections, identified in ATP
Capital Improvements Plan	Develop capital improvements plan to include improvements identified in ATP
Trail Town	Expand concept of being a recreation destination in South Central PA
Enforcement Programs	Expand use of electronic radar speed signs
Education and Encouragement Programs	Educate residents on the health and safety benefits of walking and biking
Routine and Regular Maintenance	Update policies to address minor maintenance responsibilities; consider financial planning and budgeting for maintenance and future repairs; focus maintenance efforts on identified Advanced Shared Roadways

Potential Funding Sources

While the full responsibility of funding the projects identified in this plan will not fall solely on the township, all improvements will require some investment from the township; whether time, materials, or capital. It is important for the township to consider the improvement projects, policies, and programs in this plan when preparing future budgets. Investment from the township can be used to leverage other funding sources, and it can be used for matching funds for competitive grant programs.

Given the variety of improvements identified, additional funding beyond the township's general budget will likely be needed to design and construct many of the improvements. Various competitive grant programs are available to fund the design and construction of capital improvements. A summary of the current competitive grant programs available to municipalities for active transportation improvements is highlighted here. Each grant program has different eligibility for the type of project, use of funds, matching requirements, and timelines for implementation. Grant programs typically require the project sponsor to provide matching funds and omit to administering and fulfilling other grant requirements.

The table on the following page highlights some grant programs that are available to South Middleton Township to implement active transportation enhancements in the community.

Summary of Current Competitive Grant Programs Table

Program – Administering Agency	Program Details	Capital Improvement Projects					Policies and Plans
		Bicycle & Pedestrian Facilities	Streetscape	Traffic Calming	Public Transit	Wayfinding	
Transportation Alternatives Set Aside – Pennsylvania Department of Transportation (PennDOT)	<ul style="list-style-type: none"> – Federal transportation funds – Match requires funding all pre-construction activities – \$50,000 minimum and \$1 million maximum – 2 year timeframe to complete design, right-of-way, and utility clearance 	✓		✓			
CFA/DCED – Multimodal Transportation Fund (MTF) – Commonwealth Financing Authority (CFA) with Department of Community and Economic Development (DCED)	<ul style="list-style-type: none"> – Annual competitive grant program for state funds (Act 89) – 30% match; \$100,000 minimum; \$3 million maximum – 2 – 3 year timeframe to complete the grant funded activities 	✓	✓	✓	✓		
PennDOT – Multimodal Transportation Fund (MTF) – PennDOT	<ul style="list-style-type: none"> – Annual competitive grant program for state funds (Act 89) – 30% match (based on grant award); \$100,000 minimum; \$3 million maximum – 3 year timeframe to complete the grant funded activities 	✓	✓	✓	✓		
Automated Red-Light Enforcement (ARLE) Program – PennDOT	<ul style="list-style-type: none"> – Annual competitive grant program – Funded by revenue from automated red light enforcement – No matching funds required 	✓					
Greenways, Trails and Recreation Program (GTRP) – CFA with DCED & Department of Conservation of Natural Resources (DCNR)	<ul style="list-style-type: none"> – Annual competitive grant program for state funds (Act 13) – 15% match; \$250,000 maximum – 2 - 3 year timeframe to complete the grant funded activities 	✓ Trails					
Community Conservation Partnerships Program (C2P2) – Department of Conservation and Natural Resources (DCNR)	<ul style="list-style-type: none"> – Annual competitive grant program – Various federal and state funds available for trails and improving access to recreational opportunities – Match requirement depends on program 	✓ Trails				✓	✓
Community Development Block Grant (CDBG) – Cumberland County Housing and Redevelopment Authorities	<ul style="list-style-type: none"> – Annual federal Housing and Urban Development (HUD) funds – Funds allocated to support communities with low-to moderate- income persons 	✓	✓	✓		✓	✓
Municipal Assistance Program (MAP) – Department of Community and Economic Development (DCED)	<ul style="list-style-type: none"> – Grant program with rolling applications (always accepting applications) – 50% match required 						✓

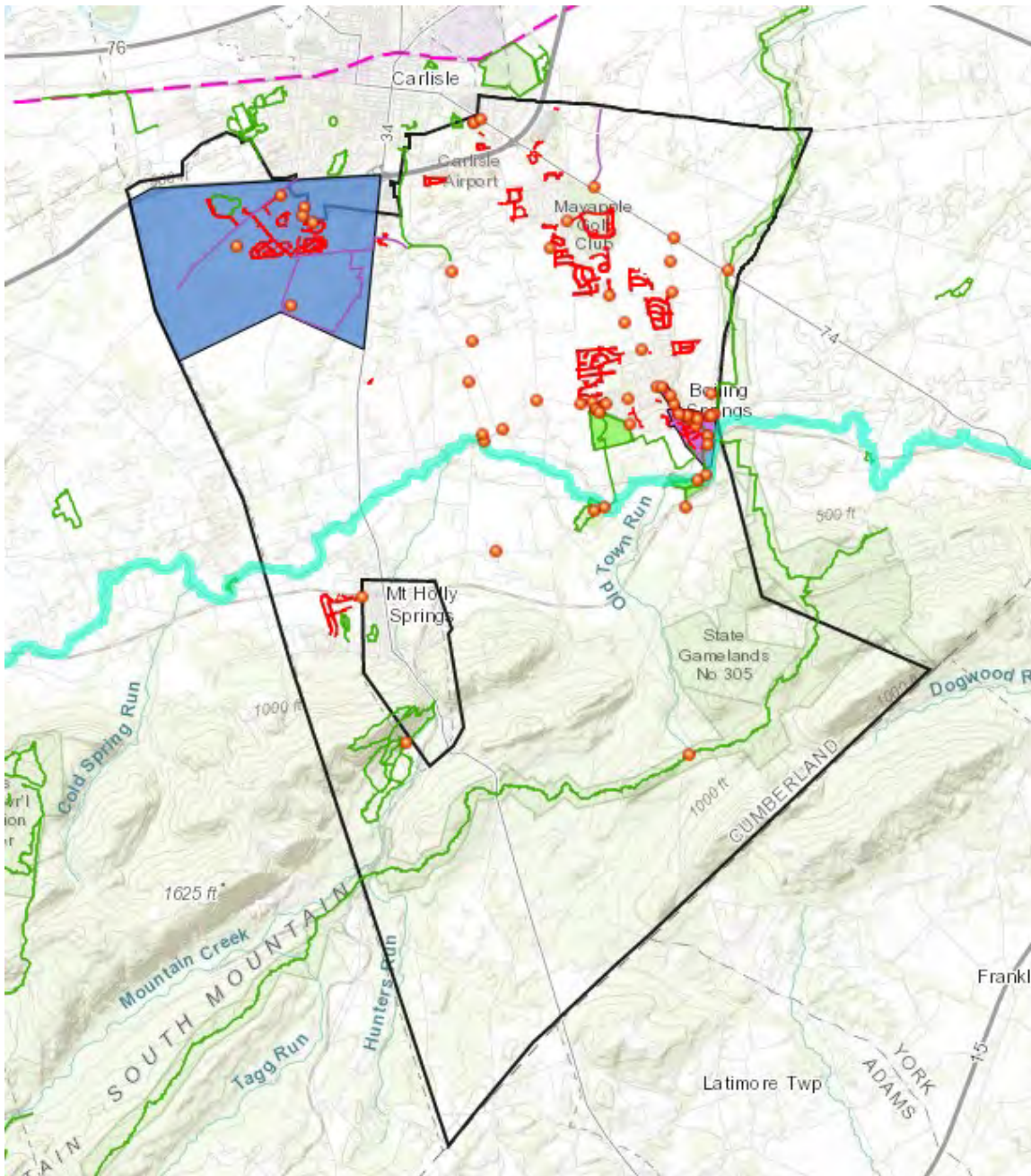
Summary of Current Competitive Grant Programs Table

Program – Administering Agency	Program Details	Capital Improvement Projects					Policies and Plans
		Bicycle & Pedestrian Facilities	Streetscape	Traffic Calming	Public Transit	Wayfinding	
WalkWorks Program – PA Downtown Center	<ul style="list-style-type: none"> – Annual competitive grant program – No matching funds required – Typically less than 1 year to complete the grant funded activities 						✓
PeopleForBikes Community Grant Program – PeopleForBikes	<ul style="list-style-type: none"> – Biannual competitive grant program for private funds – Grant requests cannot exceed 50% of the project cost and \$10,000 maximum 	✓					
Cumberland County Land Partnerships Grant Program – Cumberland County	<ul style="list-style-type: none"> – Implementation program of Cumberland County Comprehensive Plan – \$20,000—\$100,000 up to 50% of total project cost 	✓ Trails					
Cumberland Plans Program (CPP) – Cumberland County	<ul style="list-style-type: none"> – Implementation program of Cumberland County Comprehensive Plan – Will fund up to 50% of the total cost of an approved project 						✓
Regional Transportation Plan (RTP) Implementation Program – Tri-County Regional Planning Commission	<ul style="list-style-type: none"> – Created by the Harrisburg Area Transportation Study (HATS) Coordinating Committee in 2020 (previously known as Regional Connections Grant) – Up to \$1,000,000 available per year per county – 20% of total project cost required as local match 	✓	✓	✓	✓	✓	✓
South Mountain Partnership Mini-Grant Program – Appalachian Trail Conservancy	<ul style="list-style-type: none"> – Annual competitive grant program – Projects that protect and promote the South Mountain region – Will fund up to 50% of the total project cost – \$2,500 minimum and \$15,000 maximum grant request 	✓ Trails	✓	✓	✓	✓	✓
Community Challenge Grant – AARP	<ul style="list-style-type: none"> – Project that increase mobility options and connectivity in communities – No minimum or maximum award amount 	✓	✓	✓	✓	✓	
Smart Growth Grant – National Association of Realtors	<ul style="list-style-type: none"> – Educational programs and policies that support active transportation – Level One: up to \$1,500 – Level Two: up to \$5,000 						✓
Placemaking Grant – National Association of Realtors	<ul style="list-style-type: none"> – New, outdoor public spaces and destinations in a community – Level One: up to \$1,500 – Level Two: up to \$5,000 	✓	✓	✓	✓	✓	

Appendix A

Interactive Map—Comments Received

The map below is a snapshot of the interactive map that was used to solicit input from community members about active transportation needs and issues. Each comment is represented on the map as an orange dot. To provide documentation of the input received, the following pages list the verbatim comments received. Each comment corresponded to a point on the map. This input was used to develop the proposed connections and other recommendations included in the Active Transportation Plan.



Bridge

101-199 Bucher Hill Rd, Boiling Springs, Pennsylvania, 17007	Fishing pier because of having to walk on the road
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Multi-use Trail

South Middleton Twp, Pennsylvania	Connecting Letort trail to Spring Meadows may be an undertaking but it would allow safe access/travel from BS to Carlisle on foot or bike. At the very least maybe try to connect to the Indian Hills development via a path down Lindsay.
2-18 Stonehedge Dr, Carlisle, Pennsylvania, 17015	In addition to connecting Letort trail to BS, connecting Rockledge safely to Boyer Rd (and the Dickenson trail system) would leverage existing parks. If both of these were completed people could get to Spring Meadows to Letort or Dickenson.
South Middleton Twp, Pennsylvania	I believe there is a small strip of right of way around the soccer fields and farm on Rockledge/Marsh Dr. across from Cumberland Crossings. It would provide a nice trail to the area and see use by many SM families if they let SM use it.
300-338 Heisers Ln, Carlisle, Pennsylvania, 17015	Parking lot at Letort/Heisers for trail extension will be needed
South Middleton Twp, Pennsylvania	Use old RR bed as trail to get bikes off Bonnybrook
1-99 Cedar Ave, Carlisle, Pennsylvania, 17013	Adding a trail between Cedar Ave. and Samuels Dr. would greatly increase safety for cyclists navigating that area.
101-299 Cedar Ave, Carlisle, Pennsylvania, 17013	Would love to see a connector for bicycles/walkers here! My husband tried the "marked path" and it led to a homeless camp.
584 E Springville Rd, Carlisle, Pennsylvania, 17015	E Springville off of 74 is heavily trafficked by bicyclists. It also has zero shoulder (on either lane), low visibility and heavy, often speeding vehicles. Would love to see, at the very least, speed enforced, road widened and ultimately a multiuse path.
562-598 E Old York Rd, Boiling Springs, Pennsylvania, 17007	Please add a walking/biking path to connect Parkview neighborhood and Spring Meadows Park, and a cross walk across the road into the Park
319 E Old York Rd, Carlisle, Pennsylvania, 17015	After the Letort Trail Extension is open in July, it would be great to keep momentum on the connection to Craighead House and onto Park Dr and Mt Holly Springs Borough. Route 34 is a busy road and alternatives have no shoulders, bad sightlines and blind
South Middleton Twp, Pennsylvania	Ensure the Walnut Bottom Master Plan recommendations for bicycle and pedestrian improvements are implemented.

Safe Crossing

3-3 E 1st St, Boiling Springs, Pennsylvania, 17007	Traffic needs to be majorly slowed down on Rt. 174/E 1st St. at Hilltop Road so as to cross safely to lakeside (either walking or biking.) Going both ways! It's especially dangerous on a bicycle!
645-699 W 1st St, Boiling Springs, Pennsylvania, 17007	There are no sidewalks or paths to access Spring Meadows park from the South Middleton School Complex, Indian Hills, Park View or any other neighborhood close by. Any foot or bike access to the park requires crossing or going along the busy route 174.
233 Tavern Blvd, Boiling Springs, Pennsylvania, 17007	There are no safe access points to South Middleton park from Indian Hills/Parkview. A sidewalk along 174 or other method to safely walk from Parkview to the park would be very helpful!
645-699 W 1st St, Boiling Springs, Pennsylvania, 17007	We need a path from Parkview and Indian Hills to Spring Meadows Park, to safely walk along and cross Rt 174.
4-4 E 1st St, Boiling Springs, Pennsylvania, 17007	I would like to see cross walks at the clock tower and crossing from the trail by the post office to the lake.
4-4 E 1st St, Boiling Springs, Pennsylvania, 17007	i would like to see safe crossing
16 E 1st St, Boiling Springs, Pennsylvania, 17007	connecting the Appalachian trail across 174
660-698 W 1st St, Boiling Springs, Pennsylvania, 17007	sidewalk or path
4-4 E 1st St, Boiling Springs, Pennsylvania, 17007	slowing down the speed of traffic through Boiling Springs
300-324 E Old York Rd, Carlisle, Pennsylvania, 17015	Make this bridge so you can walk on it to cross the stream and continue on the old RR bed as a trail. Kids want to climb on it but it's sudden death right now.
1-1 E 1st St, Boiling Springs, Pennsylvania, 17007	Cross-walk or speed bump for safe walking/hiking crossing, this is the center point of the appalachian trail and our hospitality to all who use this gem of a community should be reflected with a more safe environment for all.
1611-1699 Boiling Springs Rd, Boiling Springs, Pennsylvania, 17007	speed limit should be reduced to 25 mph prior to the AT hiking entrance on 174 east of ridge rd, work with Monroe Township to address this. It's very dangerous to cross the AT at 174 due to the high speed with which people leave and enter Boling Springs
4-4 E 1st St, Boiling Springs, Pennsylvania, 17007	Crosswalks are needed to safely navigate around the lake and trails. Recommend putting crosswalk in by Appalachian building and at four way intersection by the clock tower and gas station.
801-899 Forge Rd, Carlisle, Pennsylvania, 17015	Add painted crosswalks and pedestrian crossing signage at the intersections on Forge Rd. between Fairview St. and Lindsey Rd. There are a lot of walkers crossing between the developments off Forge. Keeping traffic alerted to this would improve safety.
E 1st St, Boiling Springs, Pennsylvania, 17007	Four way stop sign at Front and 1st street intersection would make the intersection safer for both pedestrians and vehicles (and slow down traffic)
3 E 1st St, Boiling Springs, Pennsylvania, 17007	Add a crosswalk!! This is such an unsafe road crossing during peak traffic times.
841-861 York Rd, Carlisle, Pennsylvania, 17015	Add hiker crossing signs on York Road to alert drivers
3-5 N Front St, Boiling Springs, Pennsylvania, 17007	This can be a dangerous intersection. Sight lines are limited when vehicles are parked at the house on the corner.
123-199 Forge Rd, Boiling Springs, Pennsylvania, 17007	Consider adding crosswalks and making this a 4-way stop. High traffic area to/from school campus.
429-453 York Rd, Carlisle, Pennsylvania, 17015	Township needs to consider how to safely convey bicyclists to/from this new connector. Perhaps a new (off-road) multi-use trail that connects the roadway with Mayapple Dr.

Walking/Hiking Trail

16 E 1st St, Boiling Springs, Pennsylvania, 17007	Would be great to connect the Appalachian Trail along 174 with a safer path
17007, Boiling Springs, Pennsylvania	Whittlinger Nature Preserve trails need better marking and actually go/connect instead of dead ending in a swamp.
389-399 Westgate Dr, Mount Holly Springs, Pennsylvania, 17065	When you finish the Westgate development, can we have a walking (and possibly cycling) path through to W. Lauman Street? (I know this will need coordination with Mount Holly Borough. They seem to be keen on walking trails so may support this.)
South Middleton Twp Municipal Park	Develop connector trail along Yellow Breeches between SM Park and Whittlinger Nature Preserve. Could expand on existing "fisherman trails". Would provide additional walking option from Boiling Springs to the park.
222-298 Overfield Dr, Carlisle, Pennsylvania, 17015	Develop a footpath between the end of Overfield Dr. and the catch basin on Arlington Dr. This would allow safe walking from the Forgedale development to adjoining neighborhoods without walking on Forge Rd. or walking thru someone's yard.
501-583 W 1st St, Boiling Springs, Pennsylvania, 17007	Develop a path along 1st St. from Woodburn Dr. to the edge of Spring Meadows Park then connect that path to the trail network in the park. Would need a crosswalk across 1st St. and signage east of Woodburn to keep traffic slow coming out of town.
284 Tanger Rd, Boiling Springs, Pennsylvania, 17007	Create a trail head for the Whittlinger Preserve so that it is identifiable and welcoming. It currently feels like you are trespassing.
17007, Boiling Springs, Pennsylvania	Connect these two land areas so that visitors can access both sides of the Whittlinger from the Village. Add interpretation to share the significance of the Underground Railroad
400-598 Whiskey Springs Rd, Boiling Springs, Pennsylvania, 17007	Improve the parking for the Appalachian Trail at Whiskey Springs. This area can be dangerous during high visitation and people park all along the road.
541-543 E Springville Rd, Carlisle, Pennsylvania, 17015	Bike/ walking trail on E. Springville to Forge Rd. So many people (kids and adults) walk and ride bikes from the neighborhoods around the oaks down Springville to get to the lake and pool. It is a very dangerous road to be doing that.

Sidewalk

1 Stonehedge Way, Carlisle, Pennsylvania, 17015	I live at the corner of Stonehedge Way and Rockledge Drive and I would LOVE to see the area side walked, (Rockledge, Stonehedge Way & Dr & Forest Lane.) A number of people walk /run the area and there isn't any room on the road to do it safely.
1020-1036 Rockledge Dr, Carlisle, Pennsylvania, 17015	I would like to see sidewalk / trail connectivity on Rockledge Drive from Garland Drive to Eastgate Drive / Marsh Drive. This road sees noticeable bike and pedestrian traffic and would connect the neighborhoods that already have sidewalks together.
17 Todd Rd, Carlisle, Pennsylvania, 17013	I would like to see walkability improved along Rockledge Dr. From Todd Rd it is difficult to get out of the neighborhood and walk anywhere without walking in the lane of traffic. Connectors to Forrest Lane, Stonehedge Way, and connecting to Marsh.
234 Highland Terrace Way, Boiling Springs, Pennsylvania, 17007	It would be helpful to have a sidewalk connecting Parkview to Spring Meadows park, maybe one that runs from the sidewalks that end at the entrance to Parkview and run along 174. Also, sidewalks along springville to allow safe access to the school district
2-4 W Springville Rd, Boiling Springs, Pennsylvania, 17007	I think it would change the community to have a sidewalk that connects the school campus to Parkview or Indian Hills-- with so many families living in those neighborhoods it would really make the area desirable if kids could walk home safely.
115 W Springville Rd, Boiling Springs, Pennsylvania, 17007	A sidewalk down Springville Road to increase school walkers and allow for indian hills and parkview families to walk into town easily
9 Forge Rd, Boiling Springs, Pennsylvania, 17007	Improve the look on the East side of Forge Rd between 1 Forge and Springville Rds. Move the sidewalks back to near the road giving green space back to the residents.
81-99 E 1st St, Boiling Springs, Pennsylvania, 17007	Add a sidewalk up 1st street for the Appalachian Trail
205-229 W Springville Rd, Boiling Springs, Pennsylvania, 17007	A sidewalk down Springville Road to increase school walkers and allow for indian hills and parkview families to walk safely

Signage/Wayfinding

Boiling Springs Pool	Add a trail head kiosk with a map of the hiking trails around the Whittlinger Preserve
1 E 1st St, Boiling Springs, Pennsylvania, 17007	Add interpretive signage for the Bubble!! This hydrology is so unique and the story needs to be shared with the public.
1 E 1st St, Boiling Springs, Pennsylvania, 17007	Add the Boiling Spring to the Appalachian National Scenic Trail as an official water source (still advise hikers to treat their water). This would increase visitation and is likely the best and most unique water source on the entire AT
Mt Holly Springs, Pennsylvania	Add better wayfinding for the Mount Holly marsh Preserve

Streetscape

6-42 N Front St, Boiling Springs, Pennsylvania, 17007	Make N. Front St one way (north) until Walnut St intersection. Make Walnut St one way South to W 1st street. Improves parking, solves for difficult intersection at Front/1st sts.
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On-Road Bike Facility

300 Front St, Boiling Springs, Pennsylvania, 17007	Trails are nice but they don't take you everywhere you want to go. It's necessary to have sidewalks for pedestrians and wide shoulders on roads wherever possible for people on bikes.
6-42 N Front St, Boiling Springs, Pennsylvania, 17007	Bike path in front Aniles on both sides of road leading to school!
22-112 S Ridge Rd, Boiling Springs, Pennsylvania, 17007	Bike path on both sides of S. Ridge Road leading to York Road.
101 Forge Rd, Boiling Springs, Pennsylvania, 17007	Bicyclists should not be permitted to ride on roads without a certain width been (such as Springville). It is not safe for cars to pass and they should not be forced to wait on bikers.
453-499 Forge Rd, Boiling Springs, Pennsylvania, 17007	Create a bike lane on Forge Road to provide safe connectivity between Boiling Springs and Carlisle.
Park Dr, Carlisle, Pennsylvania, 17015	Create a bike lane along Park Dr offering safe connectivity between Boiling Springs and Mount Holly
196-196 York Rd, Carlisle, Pennsylvania, 17013	Create a bike lane on York Road offering safe connection into Carlisle.
702 Petersburg Rd, Carlisle, Pennsylvania, 17015	Provide signage reminding motorists that they are required by law to provide a minimum of 4 feet of distance when passing a bicyclist. There are so many families riding bikes these days as SM Twp has so many beautiful routes to ride!
549-585 Forge Rd, Boiling Springs, Pennsylvania, 17007	Add signage and designate the shoulder(s) on Forge Rd. for bicycle and pedestrian uses.

Other

101-199 Bucher Hill Rd, Boiling Springs, Pennsylvania, 17007	I can't count the number of times I've had to avoid pedestrians forced to walk on Bucher Hill Road because of fishing poles and equipment blocking the narrow walkway around the lake. A fishing pier would be attractive AND allow pedestrians safe passage.
599-599 Forge Rd, Boiling Springs, Pennsylvania, 17007	Reduce speed from 50mph to 35mph on Forge Rd. between Lindsey Rd. and E. Eppley/Fuller Way.
407-407 E Old York Rd, Carlisle, Pennsylvania, 17015	Blind curve/sight distance issue for motorists and cyclists.
Recreation Way, Boiling Springs, Pennsylvania, 17007	Consider adding a bicycle fix-it station.
660-698 W 1st St, Boiling Springs, Pennsylvania, 17007	Consider adding a bicycle fix-it station.
4-4 E 1st St, Boiling Springs, Pennsylvania, 17007	Partner with the AT to add a bicycle fix-it station.
801-815 York Rd, Carlisle, Pennsylvania, 17015	Unsafe intersection. Sight distance and oblique angled geometry. Township should partner with PennDOT to consider aligning Springville and Shugart Rd intersections as part of a long-term capital improvement project.