



## ACTIVE TRANSPORTATION

Active transportation is defined as any form of human-powered transportation that engages individuals in healthy, physical activity while traveling from place to place. Providing accessible opportunities for active transportation promotes healthy lifestyles within a community. Studies by the United States Centers for Disease Control (CDC) and Pennsylvania Department of Health highlight the benefits of planning for active transportation.

Studies also indicate that the benefits of an active community extend beyond thinner waist lines and include less strain on the healthcare system, less dependence on medications for normal living, and lower insurance costs.

### HEALTH BENEFITS

The CDC has found that physical inactivity and poor diet are associated with an increased risk of chronic health conditions including cardiovascular disease, diabetes, some cancers, high blood pressure, as well as obesity. The Berks County Health Needs Assessment published by the Berks County Community Foundation in May of 2016 shows that sedentary life styles and poor eating habits are commonplace in Berks County. The report points out that some Berks County residents do not have access to fresh fruits and vegetables or healthcare within a safe walking distance. One of the top priorities to address from this report is obesity. The main factor contributing to childhood obesity is sedentary lifestyles that rely on television and video games for entertainment. According to the countywide citizen survey that was conducted as part of the Berks County Health Needs Assessment, children's playgrounds came in as third highest on a survey polling facility needs. While changing behavior starts at home, providing safe routes to schools and recreation may increase the likelihood that children will opt for physical activity.

The report recommends that bike pathways, bike trails, and bike loan programs be developed especially in the City of Reading. Another suggestion pulled from this report is creating a culture of walking, creating safe places to exercise, and providing more access to recreational opportunities. Providing a more complete active transportation network could provide better access to active recreation, healthier foods, and healthcare services. While active transportation planning does not influence diet, it has positive health impacts on a community when facilities that promote active transportation are provided.

Increasing the availability of an active transportation network promotes healthy lifestyles that benefit the business community in a variety of ways. Increasing the physical reliability of the labor force and lowering health insurance costs make a business more profitable. Many businesses, in collaboration with health care insurers, have developed programs for disease prevention centered on daily exercise and healthy activities. A community that provides more opportunities for active transportation is helping the businesses that are located within that community.

### PLANNING FOR HEALTHY COMMUNITIES

PennDOT Connects is an approach recently implemented in transportation planning in Pennsylvania. This collaborative planning approach tasks PennDOT staff and community planners to consider a community's needs at the beginning of the planning process. When making improvements to a roadway or intersection, the end goal is to expand mobility. Considering community needs at the beginning of the planning process will

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make it more efficient and cost effective. PennDOT Connects provides an opportunity to discuss many specifics including safety issues/concerns, bicycle/pedestrian accommodations, transit/multimodal considerations, and consistency with current community plans. Through these planning discussions the opportunity to improve active transportation networks and community mobility needs is pushed to the forefront of transportation improvements.

Many municipalities now require that active transportation provisions be included within large residential and commercial developments. Similarly, many municipalities have also become more proactive in design requirements that promote an active, attractive and livable community. New trends proactively address issues of community health. Below are some of the factors that community leaders have looked at when addressing community health:

- To fully use trails, sidewalks and bike lanes, connectivity should be sought to destinations so that these routes can be used for both transportation as well as recreation.
- Strive for mixed use development that integrates and promotes the use of trails, sidewalks and bike lanes by providing common destinations (i.e.- restaurants, stores, libraries, schools).
- Pedestrian friendly streets should be designed in a manner that includes park benches, narrower widths with low speed limits, sidewalks, street lamps, and pedestrian safe intersections.
- Trail route signage should include mileage markers for those who commute and/or exercise within a regimen.

In addition to requiring sidewalks or connections in new residential development, community leaders have also begun identifying gaps within the existing active transportation network. Plans call for the marking of trail systems throughout existing communities by piecing together and using the existing sidewalk systems, open space easements, and acquiring left over open space for connections and parks. All of these efforts on a regional scale combined with new trail systems provide active transportation amenities and the potential for a more active and healthy community.

## ECONOMIC BENEFIT

The economic benefits of active transportation are often overlooked and not well understood by the public and municipal officials. The economic benefits are both direct and indirect. Active transportation facilities can increase the number of patrons able to access a business as well as stimulate tourism and its associated economic benefits. Specialized activities can lead to the development of specialized business opportunities, such as the rental of bicycles or scooters. The development of restaurants and over-night accommodations are also examples of direct economic benefits.

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The direct economic benefits of active transportation may be slight compared to the wider economy; however, many studies have been conducted on walkability and the economic impacts. A recent study conducted by Texas A&M on active living in 2016 has shown increased quality of life in walkable areas. The quality of life in an area has recently become a primary influence on the places people want to live and places businesses want

to operate. This increased quality of life has made areas more attractive to businesses and residents, which in turn increases property value and commercial leases.

Some communities have been able to use active transportation best practices as a key element in community revitalization. Designing or redesigning a streetscape with narrower lane widths, on-street parking, landscaping, smaller curb radii, and textured paving can reduce the traveling speed of vehicles making it safer for bicyclists and pedestrians. Curb extensions reduce the distance at intersections for pedestrians to cross, reducing the time they are vulnerable to vehicles, in the end providing a safer intersection. West Reading has implemented a road diet consisting of curb extensions, shade trees, and street furniture (including bicycle racks) on Penn Avenue. Signage such as pedestrian signal heads and a signed bicycle route add to safe active transportation along Penn Avenue in this community. This street is lined with many shops, restaurants, and services. Their redesigned streetscape has enhanced the borough into a bustling business community.

Here in Berks County, there are many communities that hold the potential of becoming more walkable. Many of the boroughs or downtowns in townships already have a primary active transportation infrastructure. Through the implementation of active transportation components such as complete streets best practices, a Complete Street Policy, or Vision Zero Policy towns across Berks County could reap the benefits of active transportation. With vision and commitment by an energized local base many communities can capitalize on their quality of life.

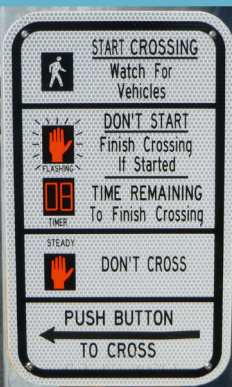
## ENVIRONMENTAL BENEFIT

The environmental benefits of active transportation are evident in improved air quality and reduction in greenhouse gas emissions. Opting for active transportation rather than traveling in a vehicle reduces toxic air pollution, the need for non-renewable fossil fuel resources, and ozone layer destruction. Many vehicles emit pollutants that aggravate respiratory diseases. These pollutants contribute to property damage and acid rain. According to Berks Nature, to combat the average amount of carbon dioxide emitted from one car every year, the oxygen from 130 trees is needed. Driving vehicles that consume non-renewable fossil fuels increases the need to bring more to the surface and the consumer. The extraction of these fossil fuels can often damage the environment around the drilling site. Chlorofluorocarbons (CFCs) consist of chemical compounds and are harmful when released into the atmosphere because they react with and destroy ozone particles. CFCs are most commonly used in refrigerators and air conditioners. When the refrigerant from vehicles' air conditioners is not properly disposed of, it leaks CFCs into the atmosphere as the liquid evaporates and can also be absorbed into the ground or mixed in with stormwater runoff. Active transportation keeps less cars on the road, fewer cars on the road can decrease the demand for more roads and parking lots. This allows more land for green space and less land covered by impervious surfaces.



# SURVEY RESPONSES

## MUNICIPAL SURVEY RESPONSES



This section summarizes responses that were provided from the Berks County Bicycle and Pedestrian Transportation Plan Municipal Survey, which was made available for the 72 municipalities in Berks County. This survey consisted of 15 questions and had a total of 43 respondents representing

41 of the 72 municipalities in Berks County. Respondents represented the urban core, surrounding suburban municipalities, and outlying rural municipalities providing a diverse representation of road classes, physical geography, and transportation needs.

The survey questions focused on the municipalities' presence or lack of bicycle and pedestrian related plans and policies. The Comprehensive Plan and Open Space/Recreation Plan are common resources for a municipality to draw from to pursue bicycle and pedestrian network improvements. By having bicycle and pedestrian network improvements incorporated in these municipal plans or on an Official Map the chances of these improvements becoming a reality are increased. Through this survey and additional research done for those municipalities that did not respond, 39 municipalities address bicycle and pedestrian accommodations in their Comprehensive Plan, 15 municipalities address bicycle and pedestrian accommodations in their Open Space/Recreation Plan, and 4 municipalities identify bicycle and pedestrian improvements on their Official Map out of the total 72 municipalities in Berks County. Out of the 41 municipalities that answered the survey, 14 had said they addressed bicycle and pedestrian accommodations in their Comprehensive plan, however, only 3 of these municipalities have a listing of proposed infrastructure improvements and locations.

Another resource for addressing bicycle and pedestrian accommodations would be a municipality's Subdivision and Land Development Ordinance (SALDO). When a municipality has a SALDO that addresses bicycle and pedestrian accommodations, new land developments can be required to accommodate bicycle and pedestrian movements throughout and around the land development. 27 of the 72 municipalities in Berks County address bicycle and pedestrian accommodations. However, municipalities have the ability to issue waivers from sidewalk and bicycle requirements. The survey indicated that of the 41 municipalities which responded, 14 do not have sidewalk or bicycle requirements, 8 never issue waivers, and 18 issue waivers depending on the land development plan submitted.

Municipalities act with a purpose to protect and promote the safety and health of its residents. One way this can be accomplished is through a well planned and connected bicycle and pedestrian network. To implement this network a municipality can look to their Capital Improvement Plan for funding. Of the 41 municipalities represented, 7 municipalities have a Capital Improvement Plan and 8 municipalities have funds or plan to have funds budgeted to address resident requests for bicycle and pedestrian infrastructure. When looking at which municipalities have received requests from residents, 25 have received no requests, however, infrastructure requests of sidewalks, trails, paths, bike lanes, missing connections, curb ramps, and cross walks have been requested in the remaining 16 municipalities.

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**M**ulti-municipal cooperation increases available resources and lessens missing connections.

The Berks County Planning Commission encourages intergovernmental cooperation through supporting workshops, conferences, and joint municipal plans. This multimunicipal cooperation can pair well with working with the school districts that service their area. Through this cooperation, the available resources rise and missing connections lessen when projects are planned without seeing a municipal border as the end point of a project. Out of the 41 municipalities that responded, 14 of them take advantage of their regional neighbors and school districts to promote the connection of trails, sidewalks, paths, and bike routes.

Eight of the 41 municipalities have a prioritized list of bicycle and pedestrian projects. A top priority for Cumru would be to extend the Angelica Trail through their township and Berks Nature connecting the Kenhorst Pool to Shillington Park. Exeter Township would like to have trail connectivity, extend the Schuylkill River Trail, and create bike lanes/routes to make their roads more bicycle and pedestrian friendly. The top priority of Longswamp Township is to complete sidewalks along State Street, while Lower Alsace has its focus set on a Skyline Drive multimodal project. Marion Township currently has a prioritized list of nine improvements to the network. Muhlenberg Township has prioritized connecting their sidewalks and adding bike lanes where appropriate. Wyomissing has identified the main missing link in their pedestrian system as State Hill Road and has prioritized it on their list of bicycle and pedestrian network improvements.

## NON-PROFIT SURVEY RESPONSES

Given the fact that many improvements to the bicycle and pedestrian networks are both requested and made by non-profit organizations either by themselves or in partnership with municipal governments, we sent a targeted survey directly to them. We received 15 responses representing Main Street organizations, disability advocates, trail organizations, colleges/universities, school districts, tourism, and recreation organizations. Some respondents highlighted specific needs and desires, while others provided more generalized concerns. Complete surveys will be found in the Appendix of the approved Plan. Some of the generalized concerns include:

1. Sidewalks in older urban areas need to be repaired or replaced;
2. There is still a large amount of curb cuts missing or in disrepair;
3. Intersections throughout the county need to be made more pedestrian friendly;
4. Boroughs with formal 'downtown' strategies are placing much greater emphasis on bicycle and pedestrian friendly design;
5. There is a desire for more greenways to connect neighborhoods;
6. Multi-use trail partners need to ensure that trails are maintained so they are accessible to all users;

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7. Bus stops need to be made more accessible from sidewalks, and there needs to be better enforcement of parking at bus stops so busses can access the curb line;
8. Student parking constraints are forcing school districts to review non-motorized transportation options.

Those who were more specific in their responses shared their needs as well (in no particular order):

1. Additional parking in downtown Hamburg, along with improvements to the Community Park to make it more accessible;
2. Alvernia University has concerns about better and safer access, both bicycle and pedestrian, between the Main Campus, the Upland Center, Millmont Elementary School, and Angelica Park;
3. The Reading Recreation Commission, who works with students of all ages throughout the City, has issues with students having safe access and reliable, cost-effective transportation to their programs at all times of the year;
4. The Pennsylvania's Americana Region Visitors Bureau has been working to enhance mountain biking, road cycling and overall outdoor tourism in Berks County. These efforts would be enhanced by connecting trails to restaurants, Main Streets, and other local attractions;
5. Building a Better Boyertown would like to continue the Secret Valley Trail Feasibility Study, implementation of another phase of their Streetscape development in downtown, and pedestrian crossing signals at key intersections in the Borough;
6. Berks Nature has an expansive study of trail connections that should be accomplished in the next 5-10 years in order to link destinations and communities with existing trails and facilities;
7. The Schuylkill River Greenway Association wants to see appropriate and safe connections made as the trail is reconstructed in Reading as part of the U.S. 422 West Shore Bypass reconstruction. Additionally, they are evaluating a large number of significant off-road trails north of Reading that would expand the Thun Trail to the Hamburg area. Connections to the Thun Trail are also being evaluated throughout the County.

By gathering, evaluating and prioritizing input from the public, municipalities and non-profit organizations, the task of creating and prioritizing a Bicycle and Pedestrian Network throughout Berks can begin.

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## PUBLIC SURVEY RESPONSES



This section summarizes responses that were provided from surveys that were available to the public in paper form or online via the Berks County Planning Commission website. This survey was publicized in the Reading Eagle newspaper, on the radio, the Berks County website, and the Berks County Planning Commission's Facebook page. Over the two-month period it was available, there were a total of 516 respondents, representing 59 of Berks County's 72 municipalities.

The survey contained a total of 20 questions. These questions consisted of locational and demographic questions in addition to bicycle/pedestrian type and frequency of use to determine the type of users responding. Most of the questions in the survey were multiple choice, but also allowed respondents to type in answers, which developed a more complete picture of existing problems or gaps in infrastructure along bicyclists' and pedestrians' commutes. Respondents were also given the opportunity to identify, given limited funding, what bicycle/pedestrian/mobility project they would like to see implemented/completed in Berks County.

The ultimate goal from conducting this survey was to determine the challenges users of the system face, what could be done to allow them to utilize the network more frequently, to provide a better, more whole bicycle and pedestrian network within Berks County.

There are a number of existing factors that respondents have indicated currently prevent bicyclists and pedestrians from using the transportation network as often as they would like. Most of the reasons have to do with the users' safety. To make users of the system feel safer, future projects should consider including better lighting on streets and trails in addition to security features such as call boxes. Education of pedestrian and bicyclist safety would be beneficial to all ages, as well as the education of motorists about safe driving when pedestrians and bicyclists are in their vicinity. Amenities close to commonly used routes would also attract more users to the system. Consideration of restrooms, changing/washing facilities, water fountains, bike repair stations, and bicycle racks should be given not only along routes, but also at businesses along these routes and by employers looking to attract employees that use these methods for commuting.

Through looking at land use, other issues users of the network face could be solved. Bicyclists and pedestrians are not always able to walk or cycle for long distances due to physical or time limitations. By creating mixed use communities, users will have the ability to make short trips to run errands they would normally be traveling in a car for. By creating communities with connecting paths, all age users will have the ability to travel to other mixed use communities and visit others without the fear of walking along a heavily travelled street/corridor. Mixed use communities could cut down on the distance users would have to walk or bike, thus reducing the time traveling to run errands, and with proper planning would possess safe connections allowing even more users to utilize the network.



# SURVEY RESPONSES



Numerous problem areas in the bicycle and pedestrian network were identified by respondents to this survey. Many of these problem areas centered around dangerous intersections and heavily travelled corridors in the transportation network of Berks County. Some intersections are too wide to cross in the allotted amount of time, some are not signalized at all, or do not have pedestrian signals.

Other intersections and sidewalks are not ADA compliant. In areas with large trees, the sidewalks may experience some upheaval. Respondents provided locations of poor intersections and heavily traveled corridors they would like to see improved for the network to work better.

These problem intersections include many near shopping centers since these centers are frequented by all types of users of the transportation network, whether they are commuting to work or running their errands. Many respondents focused on Perkiomen Avenue in Exeter Township and Fifth Street in Muhlenberg Township. Both townships are currently making improvements to the sidewalks and ADA ramps along these major corridors after recognizing the needs and desires of their respective residents. Another frequently mentioned area was around the shopping centers in Wyomissing Borough and Spring Township. Penn State Berks Campus has a large number of young residents on its campus, however, there are no sidewalks or bike lanes leading out of campus to allow the residents to safely travel to the surrounding shopping centers safely.

Safe Routes to schools was also a topic of concern in many responses. Bicycle lanes and sidewalks were requested to encourage safe and active travel to Cornwall Terrace and Green Valley Elementary Schools, which are both part of Wilson School District and located in Lower Heidelberg and Spring Townships. Antietam School District does not provide bus service to its students, requiring them to find another way to school. Sidewalks, crosswalks, and ADA compliant ramps in the areas surrounding them have been recommended as it would aid in connecting the students to the schools safely. Andrew Maier Elementary School was also mentioned as it is located between two state routes, but also surrounded by residential developments. Without a strong multimodal infrastructure of sidewalks, crosswalks, and ADA compliant ramps, the students living in these developments rely on other modes of transportation which may take longer than simply crossing the street to attend school. Respondents mentioned the difficulty of crossing Perkiomen Avenue near the shopping centers, but this is also a difficulty for students commuting to the Exeter High School.

The Boyertown School District was also mentioned as it has multiple locations in Boyertown Borough and Colebrookdale Township. Safe connections between these schools are necessary as many students will travel between them for extracurricular activities or to provide safety to younger siblings or neighbors when commuting home. Boyertown Borough and Colebrookdale Township have realized many of its students are crossing busy state routes such as 73 and 562. They have completed improvements along both of these major corridors and are currently looking to expand the reach of these improvements further along these routes through DCED Multimodal Transportation Funds.

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**U**sers generally prefer that trails be completely off road.

A recurring theme seen throughout the responses is that residents of Berks County want to walk and bike more, but without safe connections between residences and destinations, many users will refrain from walking and biking as a way of commuting. Therefore multiple missing links were identified from the survey responses. These include the above mentioned missing links around schools and shopping centers, but for longer commutes residents want to see sidewalk connections and bike lanes created along the major corridors radiating out from the City of Reading. To the west, users would like to be able to commute to areas along Penn Avenue/Conrad Weiser Parkway, SR 724, and Lancaster Avenue. To the south, users identified an on road route out of the city using Bingaman Street Bridge and south on Route 10. To the southeast, users would like the Schuylkill River trail to be completely off road, and made safer at crossings over major roadways. To the east, users would like a bike lane along with safer intersection crossings along 422. To the northeast, users would like to utilize Hampden Boulevard within city limits to connect to an off road bike path along Pricetown Road. To the north users would benefit from a bike lane along North 5<sup>th</sup> Street Highway and Allentown Pike out to Kutztown. Also to the north users would like to see connections to the Schuylkill River Trail, the trails around Blue Marsh, and for the Schuylkill River Trail to become entirely off road. Through the identification of these requests, we have gained the insight into the users preference of building a network that runs into and out of the city of Reading. Users generally prefer that trails be completely off road. Safety is always a concern and lighting, intersections, safe distance from vehicles, general infrastructure maintenance, education, and proper signing are all important factors when making connections or creating bike lanes in Berks County.