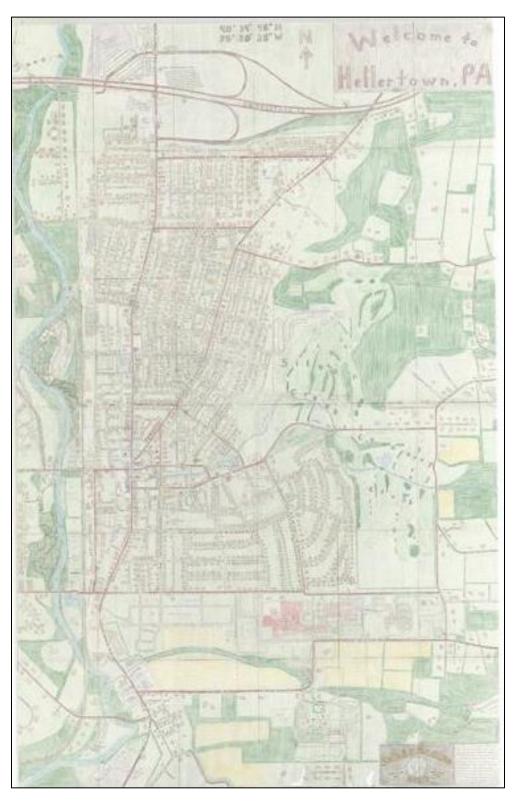
A Plan for People: Walking and Biking in Saucon Valley

By Michael Sutherland



Acknowledgements

Thank you to the Saucon Valley community helping support this plan by providing public input online. Without you this plan is nothing more than my own selfish dream.

Thank you to Josh Popichak at Saucon Source for helping to spread the news about the plans public survey and picture contributions to the plan.

Thank you to Joyce Marin at RenewLV for helping spark the idea in my mind to put together a plan like this for the Saucon Valley area.





Table of Contents

Introduction	4
Survey Results	5-10
Improvements for people walking and biking	11-29
Sidewalks	11-16
Bicycle Paths	17-20
Bus Stops	21-22
Traffic Calming	23-26
Funding Sources	27-28
Recommendation Table	29
Conclusion	30

Why this plan?

The big picture vision for this plan comes from PennDOT's Bicycle and Pedestrian Master Plan.¹ Its vision statement for the plan is that,

"Pennsylvania is a place where residents and visitors of all ages can choose to bicycle and walk. People are able to bicycle and walk with confidence, safety and security in every community, both for everyday transportation and to experience and enjoy the remarkable natural resources of the state."

Also as stated in the Hellertown-Lower Saucon Comprehensive Plan, point 25 on the Action plan states to²:

Create a regional Bicycle Pedestrian Plan as a long term goal focusing on:

- Developing a detailed plan to differentiate the locations of sidewalks, bikeways, and trails.
- Determining the needs/costs to acquire/secure rights of way based upon Saucon Valley's overall pedestrian network.
- Prioritizing sidewalk/bikeway segments.
- Incorporating segment specific capital improvement costs into Capital Improvement Programs.

But why should this be a goal for the Hellertown-Lower Saucon area? One idea from the comprehensive plan called creating a bicycle plan important to creating an "integral regional amenity" that would also be "highlighting regional assets." The plan additionally touched upon it as an economic development strategy for the region. Drawing in business by having a high-quality, connected sidewalk and bikeway network leading to these places. This network would focus on creating safe routes for human travel that our community could capitalize upon. ⁴ And as

¹ PennDOT. "2007 PennDOT Pedestrian and Bicycle Plan." *BICYCLE AND PEDESTRIAN MASTER PLAN* (2007): 3. *Bicycle/Pedestrian Information*. PennDOT, 2007. Web. 21 Mar. 2016. http://www.dot.state.pa.us/public/pdf/BPPlan.pdf>.

² Environmental Planning and Design Inc. "Our Resources, Our Valley: Multi-Municipal Comprehensive Planning in Pennsylvania's Saucon Valley." (2009): 2-7. *Lower Saucon Township*. 2009. Web. 6 Mar. 2016. http://www.lowersaucontownship.org/pdf/jointcompplan.pdf>.

³ Environmental Planning and Design Inc. "Our Resources, Our Valley: Multi-Municipal Comprehensive Planning in Pennsylvania's Saucon Valley." (2009): 1-19. *Lower Saucon Township*. 2009. Web. 6 Mar. 2016. http://www.lowersaucontownship.org/pdf/jointcompplan.pdf>.

⁴ Environmental Planning and Design Inc. "Our Resources, Our Valley: Multi-Municipal Comprehensive Planning in Pennsylvania's Saucon Valley." (2009): 1-6. *Lower Saucon Township*. 2009. Web. 6 Mar. 2016. http://www.lowersaucontownship.org/pdf/jointcompplan.pdf>.

we are spending large amounts of money on road and bridge improvements, we can also tie in projects featuring pedestrian facility improvements.⁵

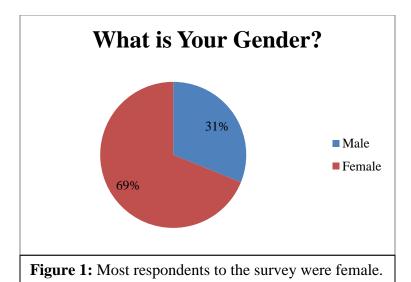
With these recommendations in mind the plan of this goal is simple. I want to highlight the current pedestrian and bicycle networks and suggest what improvements should be made to create great places for people.

⁵ Environmental Planning and Design Inc. "Our Resources, Our Valley: Multi-Municipal Comprehensive Planning in Pennsylvania's Saucon Valley." (2009): 1-7. *Lower Saucon Township*. 2009. Web. 6 Mar. 2016. http://www.lowersaucontownship.org/pdf/jointcompplan.pdf>.

Survey Results

In order to obtain public input on what should be improved in the walking and biking network, an online survey was distributed through the local news outlet Saucon Source, covering Hellertown and Lower Saucon Township. Over the period of a week the survey received 90 responses. In it a variety of questions were asked including:

Question 1: What is your gender?



Question 2: What is your age?

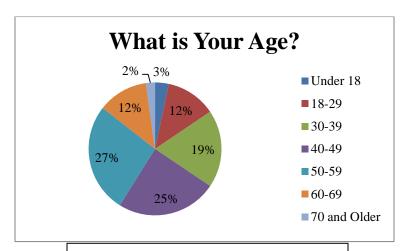


Figure 2: Half of all respondents were between the ages of 40 and 59 years old.

Question 3: Where are you from?

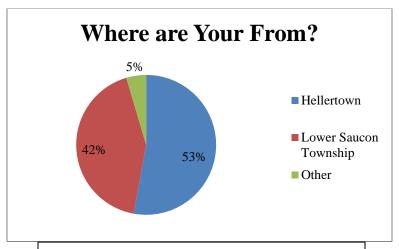


Figure 3: The survey received an almost even split between borough and township residents.

Question 4: How often do you walk (for transportation, recreation, etc.)?

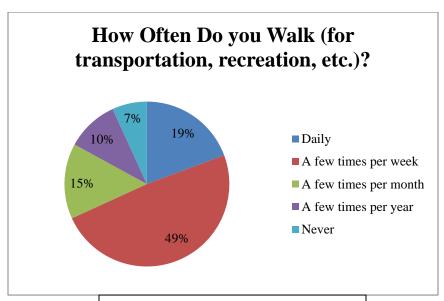
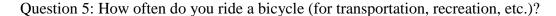


Figure 4: Half of all Saucon Valley residents walk a few times per week.



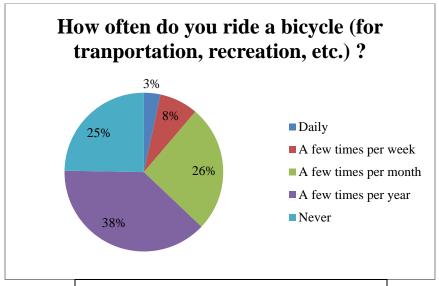


Figure 5: Most Saucon Valley residents only ride a bicycle a few times per month or year.

Question 6: What discourages you from walking?

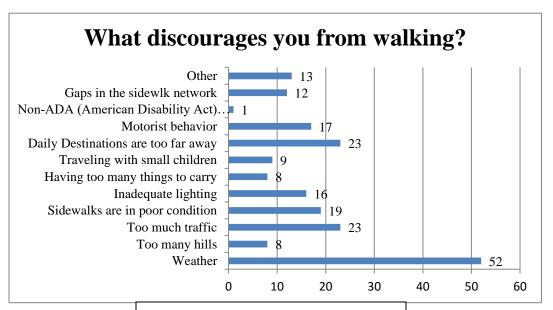


Figure 6: Weather by far is the largest deterrent from people walking more.

Question 7: What discourages you from biking?

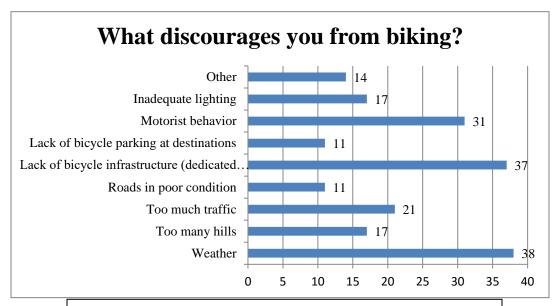


Figure 7: Weather deters people from biking the most, closely followed by lack of bicycle infrastructure and motorist behavior.

Question 8: Which of the following would encourage you to walk more?

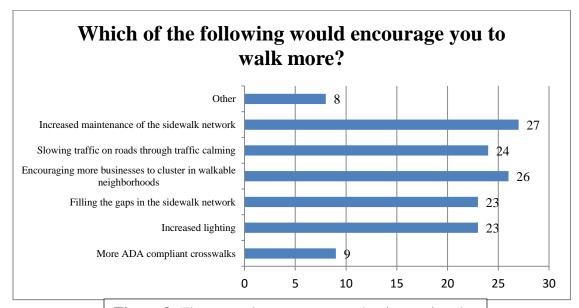
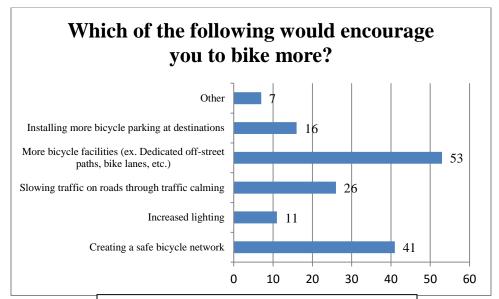


Figure 8: The general consensus was that increasing the maintenance of the sidewalk network to slow traffic and clustering businesses in walkable neighborhoods were most important towards increasing people walking.



Question 9: Which of the following would encourage you to bike more?

Figure 9: An overwhelming amount of people said that more bicycle facilities in a safe network would encourage them to bike more.

This data serves as the driver to many of the ideas put out in this plan. As we have seen above around 30% more people would walk with increased maintenance of the sidewalk network along with clustering more daily destinations together. For biking around 50% more people would bike if a safe bicycle network was implemented. These survey results show the demand for new walking and biking infrastructure in Saucon Valley.

From here we move into the vision of how Hellertown and Lower Saucon can be turned into even greater places for people.

Improvements for People Walking and Biking

Sidewalks

A sidewalk is known as a place for people to travel on the side of a road. More often than not sidewalks are neglected pieces of infrastructure. They serve as the back bone of human scaled travel. The Borough of Hellertown has spent many years installing new American Disability Act (ADA) accessible crosswalks along with new sections of sidewalk. There is still more work to be done though which is why PennDOT's bicycle and pedestrian master plan requires all new projects completed with their funding to provide ADA accessibility. The map on page thirteen highlights this. Hellertown's sidewalks are visible with the crosswalks in either green or red. A green crosswalk is sloped to allow for an easier transition for all people back up to the sidewalk after crossing the street. Now not all sloped curb cuts are ADA accessible but those are limited to a one to two block radius at the center of town. The red crosswalks are not ADA accessible. They are not sloped in any way making it more difficult for people transition from one side to the other.

What then can be done about this? According to chapter 385-13 of Hellertown's zoning plan "any property on a public or private street must construct a sidewalk unless the borough council makes an exception not to after they are notified to do so by them." Also chapter 385-17 states that "sidewalks must be built according to ADA standards. Another idea could be to implement a grant program that helps to provide for part of the cost for sidewalk improvements out of public money. This idea is already being used for façade improvements for businesses in town. Why not for sidewalks also?

As we can see the borough has done well implementing the necessary steps to improve the sidewalks in town. This can be the most easily seen in the center of town.

⁶ PennDOT. "2007 PennDOT Pedestrian and Bicycle Plan." *BICYCLE AND PEDESTRIAN MASTER PLAN* (2007): 12. *Bicycle/Pedestrian Information*. PennDOT, 2007. Web. 21 Mar. 2016. http://www.dot.state.pa.us/public/pdf/BPPlan.pdf>.

⁷ United States. Borough of Hellertown, PA. *Borough of Hellertown, PA: Zoning*. N.p.: n.p., n.d. *Borough of Hellertown, PA: Zoning*. 1 July 2002. Web. 25 Apr. 2016. http://ecode360.com/14681926. Chpt 385-13 Hellertown zoning plan

⁸ United States. Borough of Hellertown, PA. *Borough of Hellertown, PA: Zoning*. N.p.: n.p., n.d. *Borough of Hellertown, PA: Zoning*. 1 July 2002. Web. 25 Apr. 2016. http://ecode360.com/14681926. Chpt 385-17 Hellertown zoning plan

⁹ Popichak, Josh. "Planners Recommend Facade Grant Awards for Several Borough Properties." *Saucon Source*. N.p., 26 Apr. 2016. Web. 27 Apr. 2016. http://sauconsource.com/2016/04/26/planners-recommend-facade-grant-awards-for-several-borough-properties/.

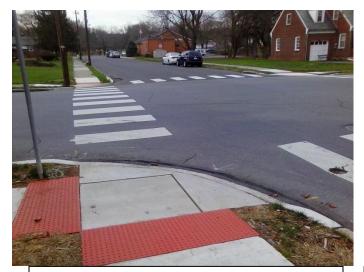


Figure 10: New ADA-Crosswalks at the Water and Northampton Street Intersection



Figure 11: New ADA-crosswalk along Water Street



Figure 12: Recently improved sidewalk in front of Borough



Figure 13: New sidewalk in front of the Borough Authority on Front Street.

The focus now shifts towards a few spots including along Water Street and the eastern residential section of town which will be described later in the plan.

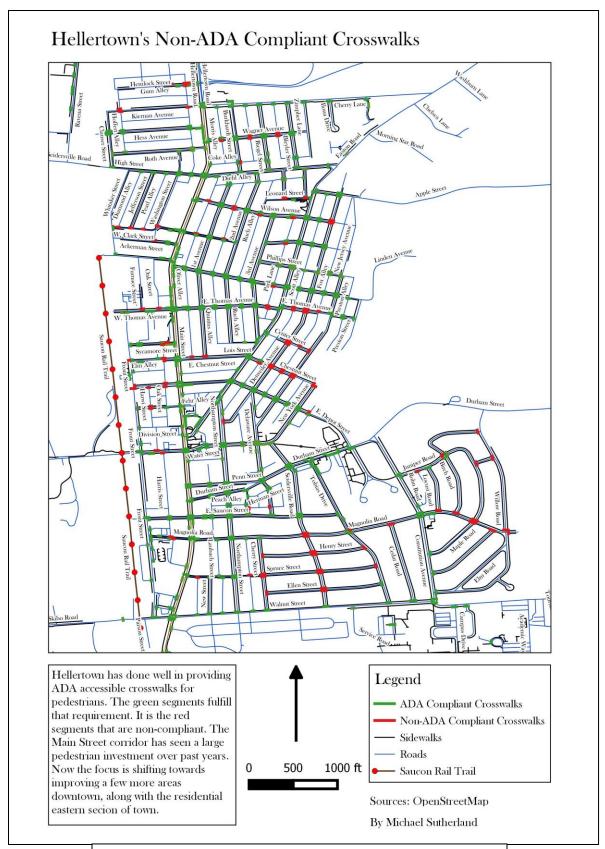


Figure 14: Analyzing the status of Hellertown's crosswalks.

Benefits of Sidewalks

Many people view sidewalks as rather unimportant. They current mindset is that everyone only drives. Why should we maintain them? Or connect them? Current trends have led to a desire for walkable neighborhoods¹⁰, where one's daily needs are close together within a short walk and Hellertown needs to be prepared for an influx of new residents who desire this way of life. ¹¹ If one can walk from place to place and not need to drive we can reduce pollution¹², traffic¹³, encourage healthier lifestyles¹⁴ while supporting the local economy. ¹⁵

The Saucon Rail Trail is home to the farmers market in the summer, providing a major event that draws in many people. And within a quarter mile of the trail lies 107 businesses. This is a mere five minute walk. Close enough for people to walk the short distance from place to place.

The sidewalks though between the trail and Main Street are not in the greatest of shape. Along Water Street at Harwi Street and Harris Street, the crosswalks are Non-ADA Accessible. This is



Figure 15: The intersection of Water and Harwi Streets

a major deterrent to families and the elderly population. One proposal is for the borough to focus on making these intersections ADA compliant. This would in turn allow for an easier journey for the vulnerable people in society such as young children and the elderly. Along with this a painted crosswalk would help identify this as an important pedestrian crossing. Many vehicles though fly down Harwi Street as a quick exit from Dunkin Donuts. What could be useful would be

¹⁰ Benfield, F. Kaid. "We Want More Walkable Neighborhoods -- but Can Our Communities Deliver?" *The Huffington Post*. TheHuffingtonPost.com, 30 Nov. 2015. Web. 25 Apr. 2016. http://www.huffingtonpost.com/f-kaid-benfield/we-want-more-walkable-nei_b_8678134.html.

¹¹ Wojcik, Sarah M. "Main Streets in Lehigh Valley's Boroughs Prepare for Millennials." *Mcall.com*. The Morning Call, 19 Mar. 2016. Web. 25 Apr. 2016. http://www.mcall.com/business/outlook/mc-outlook-main-streets-20160319-story.html.

¹² "Walking: Eco-Impact." *PACommutes*. PennDOT, 2016. Web. 25 Apr. 2016. http://www.pacommutes.com/walking/eco-impact/>.

¹³ "Walking: Benefits." *PACommutes*. PennDOT, 2016. Web. 25 Apr. 2016. http://www.pacommutes.com/walking/benefits/>.

¹⁴ Florida, Richard. "Walkability Is Good for You." *CityLab*. The Atlantic, 11 Dec. 2014. Web. 25 Apr. 2016. http://www.citylab.com/design/2014/12/growing-evidence-shows-walkability-is-good-for-you-and-for-cities/383612/.

¹⁵ "The Economic Benefits of Walkable Communities – Local Government Commission." Local Government Commission, 11 Oct. 2013. Web. 25 Apr. 2016. http://www.lgc.org/walk-to-money/.

traffic calming elements such as speed humps to let drivers know that they need to slow down and respect the pedestrian environment that they are entering. These minor infrastructure improvements will go a long way in drawing people in downtown Hellertown and the 107 businesses that lie within a quarter mile of the Saucon Rail Trail.

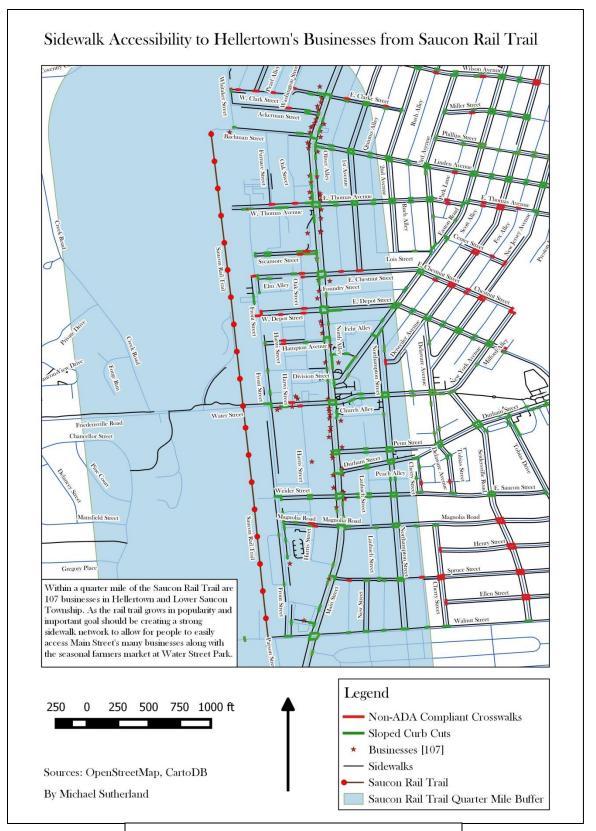


Figure 16: Analyzing the sidewalk network between Main Street and the Saucon Rail Trail.

Bicycles Paths

A bicycle path, or otherwise known as a trail is only for non-motorized traffic. These routes are important for recreation but also for daily transportation from place to place. Hellertown and Lower Saucon Township share the Saucon Rail Trail. Lower Saucon Township has the Polk Valley Park Trail is entirely in the township.

These paths are great, but they need to link to one another if people are to use them more frequently. That is why an interconnected bicycle path network is needed for our area. ¹⁶ The borough and township have a significant amount of public land that can be utilized if they so choose so.



Figure 17: The Saucon Rail Trail, north of Water Street Park. (Photo credit Josh Popichak)

PennDOT. "2007 PennDOt Pedestrian and Bicycle Plan." BICYCLE AND PEDESTRIAN MASTER PLAN (2007):
 Bicycle/Pedestrian Information. PennDOT, 2007. Web. 21 Mar. 2016.
 http://www.dot.state.pa.us/public/pdf/BPPlan.pdf>.



Figure 18: The proposed trail location from the Saucon Valley School District campus trail down to Tuminello Park.

One option has a bicycle path coming up through the Service Electric or Christ Lutheran property through the far edge of Union Cemetery and farmland. This would be the shortest connection and would require the cooperation of private landowners. If completed, installing a pedestrian island across from the Tuminello Park entrance and completing the pedestrian bridge across Mill Run would connect the Saucon Rail Trail

to the Saucon Valley School District Campus and Polk Valley Park. 17

An important note for this trail is that if implemented it should be at least 100 feet from Polk Valley Run, in order to allow for a proper riparian buffer to help improve the stream quality. A riparian buffer is an area of native vegetation that naturally filters out pollutants before they reach the stream. By doing implementing this project we can improve the stream quality that has been hurt over time due to agriculture and other development for instance.

Another option would be a path paralleling Polk Valley Road from Polk Valley Park down to



Figure 19: Looking southward along Polk Valley Road near the proposed trail location.

Main Street. From here widening the current sidewalk to Tuminello Park would create the same trail connection as before. This option deals would have little dealings with private property owners making it easier to accomplish, but longer and possibly more expensive to implement.

¹⁷ "Tuminello Park Project." *T:TTOWNProjects2008301208301208.170_Tuminello_Parceldwg301208170JB* 01_SP-1 (1) (2012): n. pag. *Saucon Rail Trail*. 10 Jan. 2012. Web. 25 Apr. 2016. http://sauconrailtrail.org/wp-content/uploads/2012/09/Tuminello_11x17.pdf.

The third option has a bicycle path running through what is currently Silver Creek Country Club. The 2009 Comprehensive Plan identifies the future land uses of this area as residential development and open space. It is also divided among Hellertown and Lower Saucon Township. I am by no means condemning the club, but what if we planned for the future by implementing an official map for the region. This would allow municipal governments to acquire land for public uses to input a trail like this in the future. What an amazing public asset this would be giving people an amazing resource for recreation and daily transportation that could utilize the current pathways.

¹⁸ "The Official Map: A Handbook for Preserving and Providing Public Lands and Facilities." (2011): n. pag. PennDOT, DCNR, DCED, PA Land Trust Association, June 2011. Web. 23 May 2016. http://www.dcnr.state.pa.us/cs/groups/public/documents/docu

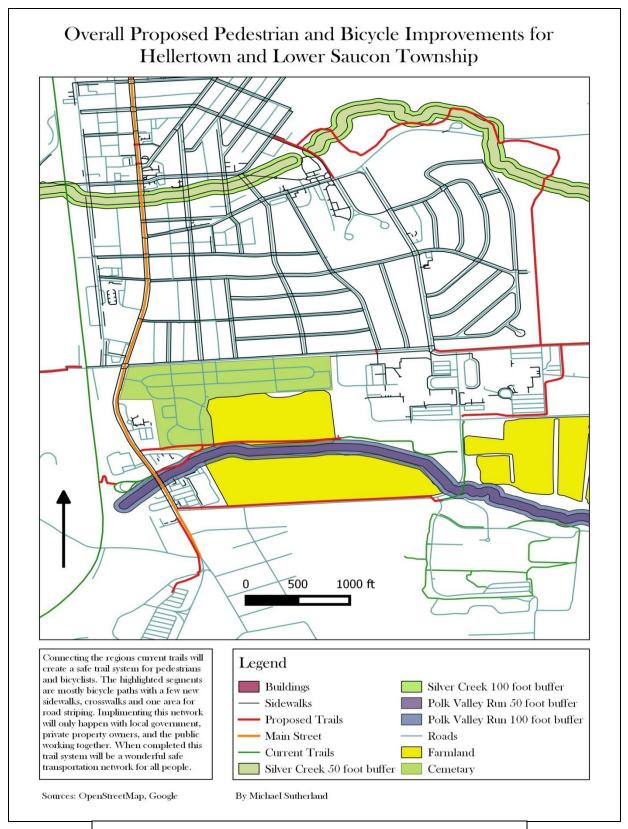


Figure 20: Observing proposed improvements for people walking and biking in Hellertown and Lower Saucon Township.

Bus Stops

LANta, the Lehigh and Northampton Transit Authority, has done well in providing Hellertown with its own bus route, connecting Hellertown and Lower Saucon Residents to Bethlehem. ¹⁹

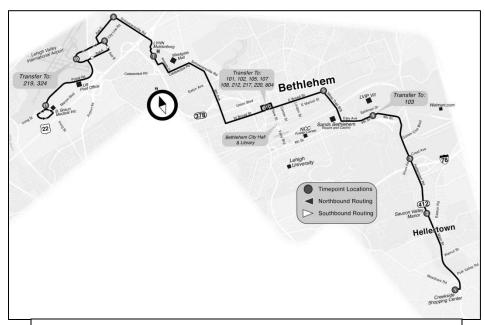


Figure 21: LANta's Route 215, Hellertown's only bus route.

As the map below shows, all of Hellertown's bus stops are within a quarter mile radius, or five minute walk, of one another, thereby allowing for a short journey to the bus. Sadly many people walk to the bus traveling along sidewalks that do not connect to one another or are not ADA compliant. If you are walking along Main Street they are in good condition but the side streets need work, especially on the western side of town.

Once at the bus stop though, most people have only a sign post to stand next to. No benches, lighting or shelter from the elements. One way of drawing people out to the bus is by providing this infrastructure at these bus stops.

¹⁹ "Route 215." *LANta*. LANta, n.d. Web. 18 Mar. 2016. http://www.lantabus.com/routes-and-schedules/route-215/.

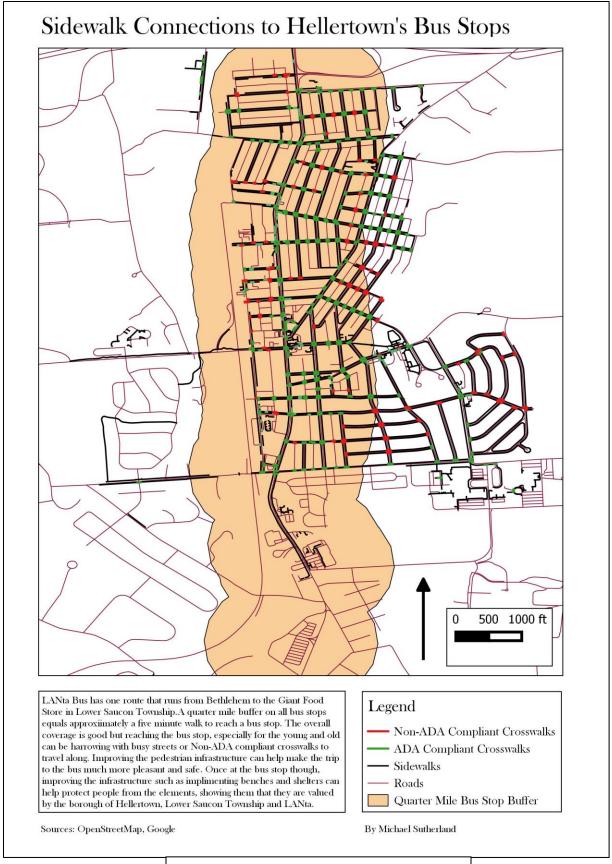


Figure 22: Analyzing sidewalk quality and connectivity to Hellertown's bus stops.

Traffic Calming

Most streets designed today are engineered for traffic to travel too quickly. The idea that we need to design for user error has created streets that people treat as highways. Both streets and roads are important. Streets are where human's social, cultural and economic livelihoods take place. Roads are meant to move people from one point to another. In order to create more streets in the borough that produce a resilient community, traffic calming can be implemented to gain these results.

Traffic calming is exactly what it sounds like. It is all about slowing down traffic naturally by implementing engineering solutions that force traffic to slow down.²⁰ The examples over the next few pages include solution such as using paint to shrink travel lanes, implementing pedestrian islands and extending curb radii using concrete or bollards.

The goal of this is not to disinvest in cars. It is to create a safer place for people. Driving too quickly in a town makes the environment feel unsafe for people. It also makes space for a multimodal transportation system that includes space for more than just cars. The opportunity is before us to be one of the first municipalities in the region to implement these ideas. The question is if we are willing to do so?



Figure 23: An example of traffic calming through paint on Depot Street.

The first example below looks at Depot Street by the Community pool. In past months the borough put out a temporary speed timing device. What could naturally slow traffic down more is shrinking the lane widths down to 11 feet wide with paint or plastic bollards, thus signaling to drivers to slow down naturally by how the street is designed. This would also create possible space for bike lanes that could connect to proposed trails in prior maps and to Dimmick Park.

²⁰ "Institute of Transportation Engineers -- ITE." *Institute of Transportation Engineers -- ITE*. N.p., 2016. Web. 25 Apr. 2016. http://www.ite.org/traffic/tcdevices.asp.

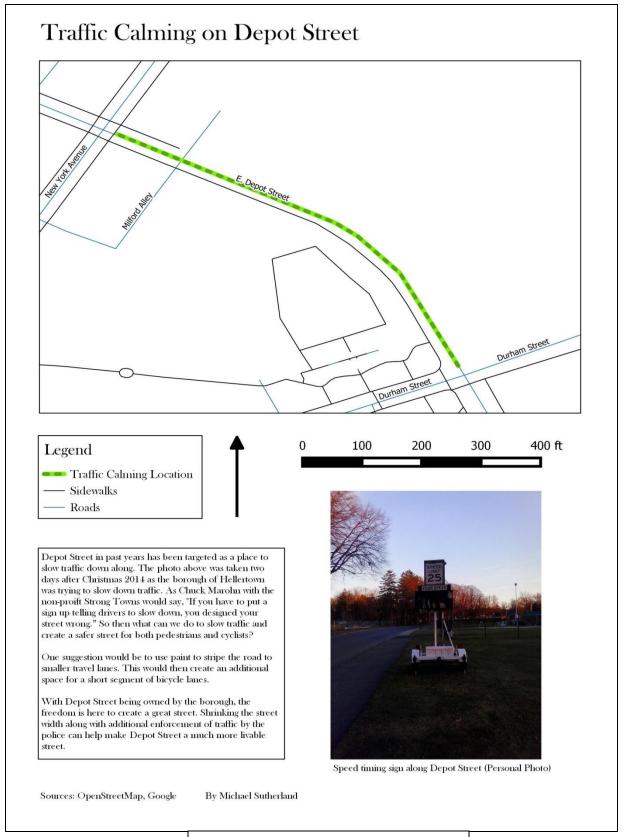


Figure 24: The study area to implement traffic calming on Depot Street.

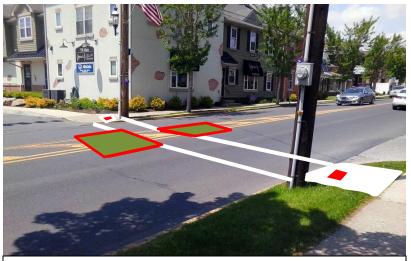


Figure 25: What the new crosswalk/pedestrian island could look like between Dunkin Donuts and Detweiller

The second example looks at installing pedestrian islands and new public spaces in the borough. Pedestrian Islands shorten the width of travel lanes for vehicles while providing shorter street crossings for people. They could be installed by using concrete, planter boxes or plastic bollards, all of which are inexpensive solutions to create safer environments for people. One place to implement a pedestrian island could be across Main Street between

Dunkin Donuts and Detweiller Plaza. With increased foot traffic in Hellertown with the Lehigh Valley Health Network's new building opening, adding in this new crosswalk and pedestrian island could help slow traffic while allowing pedestrians to cross Main Street much easier.



Figure 26: Outlining street space at the corner of New Jersey and Detweiller Avenues that could be reclaimed for other uses.

Another idea looked at reclaiming excess street space to slow traffic and instead using it for new public space. New Jersey Avenue is the prime example of this in Hellertown. A community garden, public art, parks or many other things could go in these spaces instead of the vast expanse of asphalt that it is today.

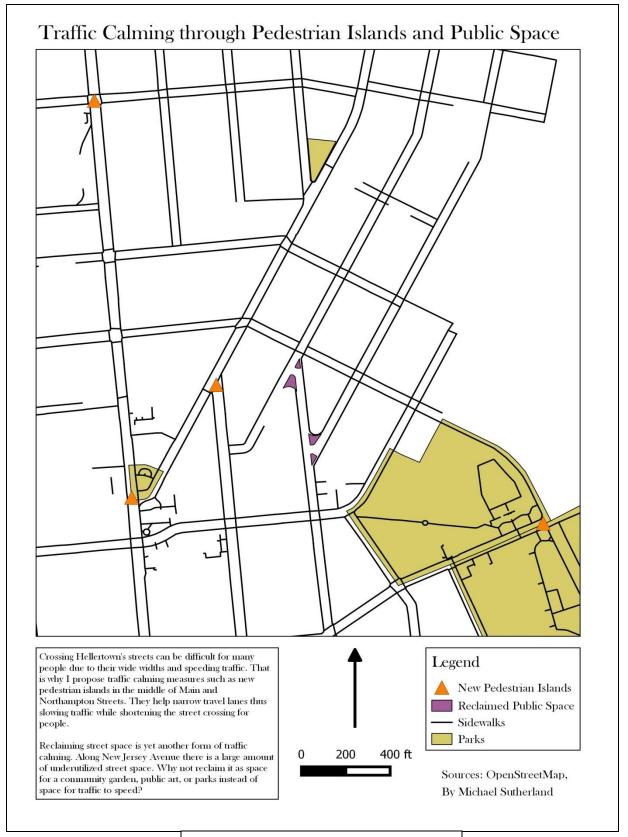


Figure 27: Proposed locations for pedestrian islands and new public space.

Funding Sources

Once the planning has been done the question is how to fund the projects? One idea earlier mentioned implementing a grant program to provide for part of the cost for sidewalk improvements out of public money. Most of this section though will be focused on local and state sources of funding including:

Transportation Alternatives Program (TAP)

The Lehigh Valley Transportation Study (LVTS) out of the Lehigh Valley Planning Commission is the main source of distributing state transportation funding throughout the region. The Transportation Alternatives Program (TAP) helps fund non-motorized forms of transportation such as for bicycle infrastructure and safe routes to school.²¹

Delaware & Lehigh National Heritage Corridor Mini-Grant Program

The D&L is at the heart of the Lehigh Valley's trail network. Their mini-grant program helps to fund projects oriented around trails. This could be a prime source of funding to creating the interconnected trail network throughout the region. Working with Lower Saucon Township with this mini-grant application would help further attaining funding.

Department of Conservation and Natural Resources (DCNR)

Grant money for projects relating to trail planning can be acquired here.²³ By aiming to connect multiple different trails the proposals in this plan can help move the funding request upward.

Department of Community and Economic Development (DCED)

Two grant programs from the DCED stand out as possible options for implementing the projects including:

Greenways, Trails and Recreation Program (GTRP)

²¹ "TAP." *TAP*. LVPC, n.d. Web. 26 May 2016. http://lvpc.org/tap.html.

²² Sadler, Claire. "Delaware & Lehigh National Heritage Corridor Announces Call for Applications for 2016 Lehigh Valley Greenways Mini-Grant Program." (2015): n. pag. 3 Dec. 2015. Web. 26 May 2016. http://delawareandlehigh.org/wp-content/uploads/2016/01/PR_2016_LVGMiniGrantApplicationOpenFINAL-2.pdf.

²³ Grant Opportunities. PA DCNR, n.d. Web. 26 May 2015.

https://www.grants.dcnr.state.pa.us/Dashboard/Grants#Acquisition.

This program is for the development of recreational areas, trails and greenways. Grants cannot exceed \$250,000. A match of 15% of the projects cost is needed to acquire the funding if selected.²⁴

Multimodal Transportation Fund

Grants from this fund must be for at least \$100,000 for the purposes of streetscape, sidewalk, pedestrian safety, and connectivity improvement projects.²⁵

²⁴ *Greenways, Trails and Recreation Program (GTRP)*. PA DCED, n.d. Web. 26 May 2015. < http://www.newpa.com/programs/greenways-trails-and-recreation-program-gtrp/#.V0c63r5sP3A>.

²⁵ *Multimodal Transportation Fund*). PA DCED, n.d. Web. 26 May 2015. < http://www.newpa.com/programs/multimodal-transportation-fund/#.V0c-Z75sP3A>.

Recommendation Table

Project	Time Frame	Funding Source
Grant program to fund improving sidewalks	• Upcoming weeks	Borough of Hellertown
Sidewalk segments to replace • Water and Harwi Street • Depot Street west of Main Street • Eastern residential section of town	 Upcoming weeks Upcoming months Next few years 	 Hellertown Grant program DCED Multimodal Transportation Fund
Speed bump on Harwi Street at Water Street intersection	Upcoming weeks	Transportation Alternatives Program
Creating an interconnected bicycle path network Tuminello Park Saucon Valley School District Giant shopping center Silver Creek	 Upcoming months Upcoming year or two Two plus years Ten plus years out 	 Delaware & Lehigh National Heritage Corridor Mini-Grant Program Transportation Alternatives Program DCED Greenways, Trails and Recreation Program DCNR Trail grants
Street calming measures Depot Street striping Pedestrian Islands on Main Street New Jersey Avenue reclaiming of street space	 Upcoming months Upcoming year or two Upcoming months 	 Transportation Alternatives Program DCED Multimodal Transportation Fund

Conclusion

Hellertown is a wonderful place to live. I am very thankful for growing up here and long to see it transformed into an even better place for people. Many of the ideas presented here are relatively inexpensive solutions to improving the borough for people walking and biking. That is why I recommend the Borough of Hellertown and Lower Saucon Township use this base research to develop a plan to dedicate funds in both municipal budgets towards walking and biking infrastructure improvements. That way this plan does much more than look nice for the public but actually comes to fruition!

Let's dream big Saucon Valley and strive to become a great place for people, a model for other municipalities in the Lehigh Valley!