

Complete Streets Narrative: Susquehanna Township

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I. Introduction

This section will discuss how streets were constructed in American history. It will be followed by the issues that arose after WWII and the organizations that were established to prevent the issues from expanding. Additionally, it will explain what a complete street is and what is incorporated in a complete streets policy. Finally, it will road map what the rest of the narrative will address.

Prior to World War II, traditional American towns were designed to be readily accessible to pedestrians.¹ However, transportation planners and engineers designed the right-of-way favoring automobile traffic following World War II. Consequently, two problems arose after post-war—street designs disfavoring pedestrians and the obesity epidemic.² First, streets became unsafe, inconvenient, and impassable for individuals taking alternative forms of transportation. Alternative forms of transportation include pedestrians, individuals on bicycles, individuals using wheelchairs, or individuals taking public transit.³ Second, streets designed solely for motor vehicles contributed to the obesity epidemic, by inhibiting children and adults from regular physical activity in the course of their daily routine.⁴

Due to these issues, local governments must create policies to protect local municipalities from health and safety injuries related to a lack of multimodal transportation. While there are municipality polices and ordinances addressing green streets and pedestrian mixed-use districts,

¹ J.F. Sallis and Glanz, *The Role of the Built Environment in Physical Activity, Eating, and Obesity in Childhood*, *Future of Children* 16, no. 1 (2006): 89-108.

² *Id.*

³ Barbara McCann, *Complete Streets Laws and Ordinance*, Pedestrian and Bicycle Information Center, (September 20, 2017) <http://www.pedbikeinfo.org/data/library/details.cfm?id=3968>

⁴ Fazal Khan, *Combating Obesity Through the Built Environment: Is There a Clear Path To Success?*, *Journal of Law, Medicine & Ethics*, LegalTrac (September 20, 2017) go.galegroup.com/ps/i.do?p=LT&sw=w&u=wilm70269&v=2.1&it=r&id=GALE%7CA266941453&asid=e6c051796675b9b045d65bd31f13854d

otherwise known as “walkability” ordinances, however, they fail to address the lack of protection to pedestrians and individuals using alternative forms of transportation. Hence, the National Complete Streets Coalition, the American Association of Retired Persons, the Institute of Transportation Engineers, America Walks, and others have taken an interest in promoting complete streets⁵ policies. A complete street may include implementing sidewalks, narrow motor-vehicle lanes, bicycle lanes, transit lanes or stops, street lights and signals, safety crossings, and green infrastructure.

In terms of policy, the policy aims to promote safer, more convenient, and comfortable streets.⁶ It is intended to keep streets accessible for all users and promote healthy living. It is achieved by local regulations and laws working holistically. When implementing a complete streets policy, municipalities must consider sidewalks, bike lanes, narrow roads, median islands, curb extensions, roundabouts, accessible public transits, pedestrian signals, on-street parking, bus lanes, and safe crossing opportunities among other things.⁷ Over the recent decades, jurisdictions across the country have been steadily implementing legislation. Legislatures need to be cognizant of catering the policy to the local municipality. For example, some larger municipalities may need to focus on timed traffic signals or ample parking requirements⁸. Whereas, smaller municipalities like Susquehanna Township may need to focus on sidewalks or street light implementations.

This narrative will address the complete streets policies that municipalities are adopting to promote safer, more convenient, and comfortable streets. The policy accommodates auto-

⁵ Barbara McCann and Suzanne Rynne, *Complete Streets: Best Policy and Implementation Practices*, American Planning Association, Planning Advisory Service Report, no. 559

⁶ See McCann, *supra* note 3.

⁷ See ChangeLab Solutions, *supra* note 7.

⁸ Southworth M, Ben-Joseph E. *Street standards and the shaping of suburbia*. Journal of the American Planning Association. 1995; 61:65-81. NCBI.

vehicles, as well as, pedestrians, bicyclists, children, and people with disabilities. The paper will first discuss problems that uncompleted streets cause, followed by why a new policy is needed, then how surrounding jurisdictions have addressed the problem and policy concerns that local municipalities must keep in mind. Finally, a draft model policy and companion resolution, addressing these concerns, is attached. This model policy is geared towards the Township of Susquehanna in Dauphin County, Pennsylvania.

II. Problems incomplete streets cause

This section will discuss the dangers of conventional streets. Conventional streets are streets that focus solely on motor-vehicles without considering other users. The section will also mention daily consequences users face from being on a conventional street. Additionally, the section will discuss some environmental and health repercussions.

Local municipalities have raised awareness to the dangers conventional streets pose to the public and environment. Conventional streets have contributed to environmental, economic, and social problems such as traffic congestion, collision injuries, pollution, and obesity.⁹ Researchers have compiled computer generated data to display bicycle crashes, pedestrians walking or bicycling to school, transit users¹⁰, chronic disease prevalence, and air pollution trends arising from a lack of complete and sustainable streets.¹¹ The results of the data displays daily consequences individuals' face.

Some daily consequences include bicyclists being scared off the roads entirely. Also, some parents are driving their children to school despite the short distance because there are no

⁹ ChangeLab Solutions, *Creating Complete Streets*, (September 26, 2017)
<http://www.changelabsolutions.org/publications/laws-resolutions-cs>

¹⁰ Brown, B. B., Werner, C. M., Smith, K. R., Tribby, C. P., Miller, H. J., Jensen, W. A., & Tharp, D. (2016). Environmental, behavioral, and psychological predictors of transit ridership: Evidence from a community intervention. *Journal of Environmental Psychology*, EBSCO, 46, 188–196.
<http://doi.org/10.1016/j.jenvp.2016.04.010>

¹¹ See McCann and Suzanne Rynne, *supra* note 5.

sidewalks for their children to walk on, which leave the parents without an alternative.¹² Older adults are relinquishing their freedom by turning in their licenses because of health concerns that prevent them from driving. People with disabilities are utilizing expensive and inconvenient paratransit, a bus transportation service for disable and elderly people, because of unaccommodating crosswalks and curb cuts.¹³ Furthermore, the lack of curb-side gardens and landscaping are reducing aesthetic value in the area and increase greenhouse gases.

III. Why a new policy is needed

(A) How existing law(s) cannot adequately address the problem

This section will discuss how complete streets policies have developed and changed over the years. It will be discussing how different states have morphed their own policies in accordance to their needs. It will then be followed with the need for political support. Finally, it will address Susquehanna Township's current policy on completes streets.

The completes streets movement is a variety of converging trends over the years. The Americans with Disabilities Act¹⁴ (ADA) was passed, the traffic-calming movement pushed for speed control, the bicycle and pedestrian planning advocates created a federal mandate for a coordinator per state, and the Safe Routes to School movement lobbied for funds to make walks to school safer.¹⁵ In 2009, Senator Tom Harkins and Representative Doris Matsui introduced the federal Safe and Complete Streets Act of 2009¹⁶ to ensure safe active transportation, but the bill

¹² Id.

¹³ Id.

¹⁴ Americans with Disabilities Act of 1990 (ADA), 42 U.S.C. §§ 12101-12213 (2013) (amended 2008).

¹⁵ See McCann and Suzanne Rynne, *supra* note 5.

¹⁶ S. 584—111th Congress: Complete Streets Act of 2009.

failed to become a law at the federal level.¹⁷ However, current successful policies is partly because of the existence and guidelines of Smart Growth.

Smart Growth advocates for walkable communities with pedestrian-friendly and interconnected streets. They merged with public health practitioners and environmentalists in a joint effort for the public good. Public health advocates believe that “Active Living” in a complete streets policy is a solution to the obesity crisis and related illnesses.¹⁸ Alternatively, environmentalist advocates believe that green streets projects implemented under complete streets policies have promoted sustainable living. For example, the policies have built streets with efficient storm water management and urban green space, which mitigate adverse environmental effects.¹⁹

Over 25 states have currently passed complete streets policies.²⁰ Each state has policies directed towards their particular needs—a broad policy or a comprehensive plan. For instance, in Florida, bicycle and pedestrian paths have to be given “full consideration” by the transportation board.²¹ Wisconsin directs the Department of Transportation to include bicycle and pedestrian accommodations in all new construction and reconstruction projects—unless the cost of doing so will be excessively disproportionate (greater than 20% of total cost).²² In Pennsylvania, Pennsylvania Department of Transportation (DOT) adopted Design Manual 1A Appendix J, adopted in SOL 432- 07-02, in 2007 stating, “Department policy requires the evaluation of the access and mobility needs of pedestrians and bicycle users in highway and bridge transportation

¹⁷ Congresswoman Matsui and Senator Harkin Introduce Bill to Make Streets Safer and Encourage Healthier America, March 12, 2009, http://www.matsui.house.gov/index.php?option=com_content&task=view&id=1567&Itemid=98 (September 21, 2017)

¹⁸ See McCann and Suzanne Rynne, *supra* note 5.

¹⁹ *Id.*

²⁰ Smart Growth America. *State-Level Complete Street Policies*. National Complete Streets Coalition. Updated 5/1/14. <https://www.smartgrowthamerica.org/app/legacy/documents/cs/policy/cs-state-policies.pdf>

²¹ *Id.*

²² Wisconsin Administrative Code Register, December, 2010, No. 660, Chapter Trans 75.04.

corridors. This revised policy mentions that highway and bridge projects must consider the existing, latent, and projected needs of pedestrians and bicycle users while constructing. It requires the integration of the identified needs into project planning and design processes.”²³

However, despite legislators passing complete streets policies, there is no guarantee they will be funded without compelling evidence of their health and economic benefit.²⁴ Another barrier that arises during the complete streets movement is the lack of political support to move forward with complete streets policies due to cost and reconstruction concerns.²⁵ To ensure political support and municipality support there must be a detailed framework to achieve the goal. Complete streets policies provide the framework enacted in the form of laws, policies, ordinances, and resolutions.

Unfortunately, there are no implemented complete streets policies in the Township of Susquehanna. There are policies related to streets and sidewalks²⁶ and proposals for walkability ordinances in the Township of Susquehanna. The streets and sidewalks ordinance addresses sidewalk maintained, ice and snow removal, permits, manner of doing work, and restrictions on restoration among other sections. However, there is no current regulation addressing the goals of a complete streets policy or implementing the specific requirements of such a policy. To be successful in promoting accessible streets to all users and encourage sustainability in Susquehanna Township, a complete streets policy must be enacted. To ensure that the policy will be funded, the policy must have compelling evidence of a health and economic benefit.

(B) Sustainability benefits a policy will bring to the local municipality

²³ See Smart Growth America. *supra* note 16.

²⁴ See Fazal Khan, *supra* note 1, at 391.

²⁵ Lynott, Jana, et al. 2009. *Planning Complete Streets for an Aging America*. Washington, D.C.: AARP Public Policy Institute. www.aarp.org/research/housing-mobility/transportation/2009_02_streets.html

²⁶ Township of Susquehanna, PA: *Streets and Sidewalks Township of Susquehanna*, PA Code, <http://www.ecode360.com/27542380>

This section will address the economic, social, and environmental benefits of implementing a complete streets policy.

(1) Economic

Some economic benefits the Township of Susquehanna will gain include an increase in consumer spending, property values benefits, business benefits, and lower individual transportation costs.²⁷ The Township of Susquehanna's Complete Streets Policy will positively affect employment, education, residential, recreational and public facilities, as well as, retail and transit centers as a byproduct of its implementation.

First, consumer spending may increase in relation to specific complete streets investments. For example, bicycle parking is more space efficient than automobile parking and each square meter of bicycle parking may generate more revenue per hour than automobile.²⁸ Additionally, individuals are willing to pay more for goods in landscaped business districts than in non-landscaped districts.²⁹ Individuals on bicycle or foot are also more likely to spend more per capita per week at local businesses.³⁰

Second, property house values are higher in walkable neighborhoods.³¹ Walkable developments generate higher property tax yields than more suburban developments.³² Furthermore, statistics show that homes near walking trails are higher in monetary value than

²⁷ Regional Vision. *The Economic Benefits of Complete Streets*, http://vibrantneo.org/wp-content/uploads/2014/03/VibrantNEO_EconomicBenefitsofCompleteStreets.pdf

²⁸ Lee, A., & March, A. (2010). *Recognizing the economic role of bikes: sharing parking in Lygon Street*, Carlton. Australian Planner, 85-93.

²⁹ Hastie, C. (2003). *The Benefits of Urban Trees*. Warwick District Council.

³⁰ Transportation Alternatives. (2012). *East Village Shoppers Study: A Snapshot of Travel and Spending Patterns of Residents and Visitors in the East Village*. New York City: Transportation Alternatives.

³¹ Song, Y., & Knaap, G.-J. (2003). *The Effects of New Urbanism on Housing Values: A Quantitative Assessment*. National Center for Smart Growth Research and Education, University of Maryland.

³² Smart Grow America, *Building Better Budgets: A National Examination of the Fiscal Benefits of Smart Growth Development*. National Complete Streets Coalition, 2013.

homes that are further in distance.³³

Third, there are business benefits as well. Occupancy rates of office buildings increase with landscaping amenities.³⁴ Additionally, national data shows that infrastructure projects specific to cycling generate 11.4 jobs per \$1 million spent. Whereas, traditional road projects—like repaving or widening—generate approximately 7.8 jobs per \$1 million spent.³⁵ Also, bicycle lanes slow down traffic and increase local businesses.³⁶

Fourth, individual costs incurred will decrease. A national study displays that people living in areas with sprawling, lounging-around, characteristics have fewer transportation options than people in non-sprawling areas. Therefore, spend an average of \$1,300 more per year on transportation.³⁷ This will be reduced with the implementation of alternative modes of transport.

(2) Social

Some social benefits the Township of Susquehanna will gain include fighting the obesity crisis and fostering streets safe for active travel.³⁸ Research has found that municipalities that lack complete streets have lower physical fitness levels, higher likelihoods of obesity and traffic crash risks, and more harmful air pollutants per capita than walking residential municipalities.³⁹ Furthermore, studies display that bicycle trails and footpaths increase physical activity.⁴⁰ The

³³ City of San Mateo. (2011). *Bicycle Master Plan*. San Mateo: City of San Mateo.

³⁴ Wolf, K. (1998). *Urban Forest Values: Economic Benefits of Trees in Cities*. Seattle: Center for Urban Horticulture, University of Washington.

³⁵ Garrett-Peltier, H. (2011). *Pedestrian and Bicycle Infrastructure: A National Study of Employment Impacts*. Amherst: Political Economy Research Institute, University of Massachusetts Amherst.

³⁶ Flusche, D. (2012). *Bicycling Means Business: The Economic Benefits of Bicycle Infrastructure*. Advocacy Advance.

³⁷ Surface Transportation Policy Project. (2000). *Driven to Spend*. Center for Neighborhood Technology.

³⁸ See ChangeLab Solutions *supra* note 7.

³⁹ Frank, L. D., and S. Kavage. 2008. *Urban Planning and Public Health: A Story of Separation and Reconnection*. *Journal of Public Health Management Practice* 14: 214–20.

⁴⁰ Humpel, N., N. Owen, and E. Leslie. 2002. *Environmental Factors Associated with Adults' Participation in Physical Activity*. *American Journal of Preventive Medicine* 22(3): 188–99.

Centers for Disease Control and Prevention (CDC) has specifically recommended adoption of complete streets policies outlined by the National Complete Streets Coalition.⁴¹

Moreover, another social benefit includes improved individual health because of a reduction in pollutants from traffic. Complete streets municipalities are consistently associated with less per-capita vehicle travel and lower levels of carbon dioxide, volatile organic compounds, and oxides of nitrogen that harm the environment.⁴² Additionally, the health of the individuals of the municipality will also improve due to having a more active lifestyle if they took advantage of an alternative form of transportation. That improvement may be measured through policy performance reporting.

Furthermore, complete streets policies also improve vehicle safety. An US Federal Highway Administration (FHWA) review found that design elements including sidewalks, raised medians, better bus-stop placement, traffic calming measures, and treatments for disabled travelers improve pedestrian safety.⁴³ American Association of Retired Persons (AARP) recommends adoption of complete streets policies to help older adults.⁴⁴ Additionally, children are more likely to walk or bicycle to school when sidewalks are available, when there are safe street crossings, and when school zones enforce vehicle speed.⁴⁵

(3) Environmental

Some environmental benefits the Township of Susquehanna will gain include mitigating greenhouse gases, increasing aesthetic value, and developing a more sustainable floodplain

⁴¹ Khan, Laura Kettel, Kathleen Sobush, Dana Keener, et al. 2009. *Recommended Community Strategies and Measurements to Prevent Obesity in the United States*. Morbidity and Mortality Weekly Report, July 24, 58(RR07): 1–26.

⁴² See McCann and Suzanne Rynne, *supra* note 5.

⁴³ Campbell, B. J., et al. 2004. *A Review of Pedestrian Safety Research in the United States and Abroad*. Federal Highway Administration Publication FHWA-RD-03-042, January.

⁴⁴ See Lynott, Jana *supra* 23.

⁴⁵ Ewing, R., Will Schroeder, and William Greene. 2004. *School Location and Student Travel: Analysis of Factors Affecting Mode Choice*. Transportation Research Record 1895: 55–63.

drainage system. However, Susquehanna Township must be aware of and work together with other polices and ordinances to create curbside rain gardens, eco-friendly parks, porous concrete streets, and more when feasible to truly gain the benefit. For example, establishing curb-side gardens, biowales, porous pavement are integral parts of sustainable architecture that absorb water and mitigate floods through reabsorption and drainage techniques.

Additionally, studies have calculated that 5 to 10 percent of urban automobile trips may shift to non-motorized transportation,⁴⁶ which allows an individual commuter to reduce carbon-dioxide emissions by 20 pounds per day, or more than 4,800 pounds in a year.⁴⁷ Also, bioswales and pervious surfaces may work well in Susquehanna Township—if all users have accessibility and safety factors are considered. A bioswale is a trench that receives rainwater runoff from a parking lot or road and has a garden to slow water infiltration and filter out pollutants. Whereas, the pervious surface will drain rain and prevent flooding. Additionally, landscaping will create a more inviting and visually interesting pedestrian experience. Landscaping is also a means of preserving native biodiversity and natural flora.

IV. How surrounding jurisdictions address the problem

This section will address how Lancaster City and Chester County have addressed their complete streets policies. It will explain which agencies and partners they utilized to create their policy and which organizations helped fund their policies. It will be followed with a discussion on the use of exemptions when implementing their policies.

(1) Specific jurisdictions addressing the problem

(A) Lancaster City, PA Policy

⁴⁶ Litman, Todd. 2009. *TDM Encyclopedia*. Victoria Transportation Policy Institute, www.vtpi.org/tdm/index.php.

⁴⁷ Davis, Todd, and Monica Hale. 2007. *Public Transportation's Contribution to U.S. Greenhouse Gas Reduction*. McLean, Va.: Science Applications International Corporation. September.

Lancaster City, PA has come up with a comprehensive policy aimed to incorporate green infrastructure (GI) and projects in their policy. Their complete streets projects involved the help of partners and agency corporation, such as, Lancaster Conservancy Urban Greening Program, PA Department of Conservation and Natural Resources, PA Department of Environmental Protection, Lancaster Planning Commission, School District of Lancaster, Chesapeake Bay Foundation, Lancaster General Health, Lancaster Bikes Coalition, Local developer representatives, and local residents.⁴⁸

To achieve the lowest overall green complete street cost during their complete streets projects they focused on road type (width, traffic, and ownership), tree canopy, flooding locations, overhead wires, sidewalk condition, and inlet condition. In terms of design, they created curb extensions with and without bioswales for traffic calming and pedestrian safety.⁴⁹ Lancaster incorporated filtration trenches, porous pavements in parking lots, bike lanes, ADA ramps, lighting, narrower lanes, and improved signalization.⁵⁰ As a result of the changes, they identified new traffic patterns and signal coordination, turn lane analysis, and bus lane turns.

Additionally, Lancaster utilized public involvement. They worked together with the ADA to survey during the pavement analysis. They also had public meetings and meetings with business owners to coordinate special exemptions.

Moreover, Lancaster funded their projects through federal and state transportation funds. They used grant funds and help of local businesses. Specifically, PennDOT Liquid Fuels Program, PennDOT Automated Red-Light Enforcement (ARLE) Program, Smart Growth Transportation Program (SGT), PennVest, PA Dirt and Gravel Roads Maintenance Program

⁴⁸ See McCann and Suzanne Rynne, *supra* note 5.

⁴⁹ Karl Graybill, AICP, City of Lancaster, Cindy McCormick, PE, PTOE, McCormick Taylor, *Building Green into Complete Streets in the City of Lancaster, PA*, MASITE Annual Meeting, Oct 5, 2015. http://www.masite.org/Misc/2015_Annual_Meeting/Presentations/4b_Green.pdf

⁵⁰ Id.

(DCNR), National Fish and Wildlife Foundation (Chesapeake Bay Stewardship Fund), and Chesapeake Bay Trust Green Streets Jobs Green Town.⁵¹ Overall, their breakthrough with policy funding was through grants.

(B) Chester County, PA

Chester County, PA has created complete streets ordinances for Baltimore Pike—an auto-trail that runs through Maryland, Pennsylvania, and Rhode Island that crosses over local commercial and residential communities. One of the problems Chester faced is incorporating a system that takes in consideration income, ability, and availability because it has an affluent county with a lot of disparities within the population’s age and income. Their goal for transportation within the Landscape2, Chester’s comprehensive policy, was to “Provide a safe, intermodal transportation system which optimizes mobility and access, sustains quality of life, strengthens the economy and protects the environment.”⁵² Their vision for the Baltimore Pike was to provide accommodation for people biking, people walking, people using the commuter buses or circulator buses commonly known as the SCCOOT Bus, and people using any other form of non-motorized transportation—while still maintaining the roadway’s efficiency to move motorized vehicle traffic. The transportation plan was adopted as an amendment.⁵³

To achieve the goal, they focused on transit improvements, pedestrian facilities, traffic calming, bicycle facilities, and multi-use facilities. These include bus shelters, crosswalks, median islands and curbside extensions, bike-able shoulder, shared lanes, signage, and multi-use trails.⁵⁴ Moreover, Chester funded their projects through Federal Highway Administration:

Transportation Alternatives Program (TAP), PA Commonwealth Finance Authority: Multimodal

⁵¹ Id.

⁵² Chester County Planning Commission, *Baltimore Pike for Everyone, Complete Street Strategies for Baltimore Pike*, (September 26, 2017). <http://www.chesco.org/DocumentCenter/View/26887>

⁵³ Id.

⁵⁴ Id.

Transportation Fund, PennDOT: Automated Red-Light Enforcement Program (ARLE), PA Department of Community & Economic Development (DCED): Greenways, Trails and Recreation Program.⁵⁵

(2) Exemptions

Exemptions are used in complete streets policies to ensure adequate flexibility when implementing the policies. Creating a clear exemptions process has been a key concern in many jurisdictions changing to the complete streets approach. During the policy adoption process, exemptions are often debated and alter political support for the policy.

In 2000, the Federal Highway Administration (FHWA) created three exemptions that have become commonly used in complete streets policies. The first states that complete streets are not necessary on corridors where non-motorized use is prohibited—such as a freeway.⁵⁶ The second exemptions, involving project cost, recommends that exemptions be allowed “when the cost of accommodation ... is excessively disproportionate to the need or probable use.”⁵⁷ The FHWA Guidance includes a set percentage threshold for disproportionate cost, but some communities have discarded this as arbitrary and make decisions on a case-by-case basis. The third exemptions are a documented absence of need—now and in the future.⁵⁸

Furthermore, there are other common exemptions used in complete streets policies. First, is the ordinary maintenance and repairs exemptions, which reassures planners and engineers that basic maintenance work will not stimulate a full reconstruction.⁵⁹ Second, exemptions relating to safety.

V. Policy concerns

⁵⁵ Id.

⁵⁶ See McCann and Suzanne Rynne, *supra* note 5.

⁵⁷ Id.

⁵⁸ Id.

⁵⁹ Id.

There are a few policies concerns the Township of Susquehanna must address while developing and implementing a new policy. For example, identifying the governmental authority that will overlook and maintain the policy; finding potential partners or endorsements to support the policy; and analyzing blueprints to mitigate obstacles prior to implementing the policy. Additional concerns include cost, local resident pushback, and working with local government agencies to ensure that the policy will be actually be followed if enacted.

When proposing a policy, Susquehanna Township should consider who will be in charge of administering the policy—possibly the Board of Commissioners. They must also identify and work with their allies during the process to incorporate a cohesive plan. Additionally, they must blueprint their priority areas taking inconsideration green infrastructure, flood resistance, and ADA motives. Susquehanna Township must make it clear whether they will have a broad complete streets policy or a comprehensive plan. If they have a comprehensive plan, they must consider who will fund it when it is adopted. They must make it clear when the policy will be executed. The policy should be clear that it does not require all current streets to be reconstructed—however—it applies to future construction, which may include reconstruction of specific current roads, when applicable. They must also consider implementing the policy to affect *all* future construction and allow exemptions for all whose who are eligible. After the policy is implemented, there must be a tangible way to measure performance and monitor economic, social, and environmental success rates—a suggestion is an annual performance measures presentation.

The main policy concern for the Township of Susquehanna is cost. The policy may be funded through similar grants and organizations as Chester County or Lancaster City. Susquehanna may follow in Lancaster’s footsteps by implementing a fee similar to an addition

on a water or sewer bill. They can also create a hotel bed tax by working with local hotels or establish a credit system for properties in-site treatment of impervious areas. In terms of cost exemptions, Susquehanna may implement FHWA's 2000 recommendation defining "excessively disproportionate" as costs above 20 percent of total project costs as well. ⁶⁰

Also, Susquehanna Township must consider that many successful complete streets policies are achieved by integrating multimodal facilities into the project design, which folds the costs for these facilities into the costs for the entire project. At the Pennsylvania DOT, the consideration of multimodal must be early in the process to ensure that the costs for these facilities are incorporated into a budget at the onset of the process.⁶¹ If it is not before the conceptual and design phases end, then the local municipality, Susquehanna Township, must pay for the additions.⁶²

Furthermore, Susquehanna Township must think of options for residents that may not want the complete streets process to move forward. For example, if a private land owner is hesitating to give up their land Susquehanna Township must consider different options to incentivize the property owner to comply with the policy. Some options may include easements and eminent domain. Although, it is important to note that this policy is more likely going to affect major roads such as Progress Road, Walnut Street, Linglestown Road, Front Street, and Union Deposit. In these cases, the roads are state-owned roads, while others are maintained by Susquehanna Township behind the curb under PennDOT's policy. Therefore, the private owners are less likely to be affected directly anyway.

However, it is more than likely the residents in Susquehanna Township will be in favor of

⁶⁰ See McCann and Suzanne Rynne, *supra* note 5.

⁶¹ Id.

⁶² Id.

the policy because many residents have families with children, people of disability, are runners, or like the concept of complete streets. Also, other reasons residents will more likely favor the policy is shown through their voice in recent town meetings. Recently in a meeting for residents there was a concern for cars speeding near Thomas Holtzman elementary school, so this policy will address that by narrowing lanes. Also in another presentation, conducted before residents, the Township plans to extend the Capital Area Greenbelt trail from Wildwood Park to Fort Hunter Park. Front Street (north of Linglestown Road) will be narrowed from four lanes to three lanes (one each direction & a turning lane). The residents were concerned about the traffic in front of their homes speeding, so Susquehanna Township explained that the proposed traffic calming measures will help to reduce speeds and could also reduce traffic because of the bicycle path extension. Thus, Susquehanna Township has already taken current steps towards complete streets without realizing they are abiding by this policy.

Another policy concern for the Township of Susquehanna, along with other jurisdictions, is working with local government and state-DOT's. While creating a complete streets policy, most jurisdictions do not control all of the roads within the area because they may be built by states, private developers, cities, or townships. Consequently, there may be conflicting goals and design standards that result in an abrupt change in a project.⁶³ All of these concerns must be addressed to implement a successful complete streets policy.

VI. Conclusion

Complete streets are designed and operated to enable safe access for all users—that include individuals with disabilities, older individuals, and children.⁶⁴ Additionally, complete streets promote sustainable living and offset the rising obesity and health-related epidemic. The

⁶³ *Id.*

⁶⁴ Smart Growth America, *What Are Complete Streets?*, National Complete Streets Coalition, (September 26, 2017) <https://smartgrowthamerica.org/program/national-complete-streets-coalition/what-are-complete-streets/>

policies seek to change the way transportation agencies and municipalities approach every street project. At the core of the complete streets movement are important political and procedural alterations. While there is no prescription for the development and adoption of a complete streets policy, the policy-making process is influenced by a host of variables.⁶⁵ Some influential variables include, but are not limited to, political will, local government staff support, public support, and partnerships.⁶⁶

This narrative addressed various topics relating problems that arise from uncompleted streets. A new policy is needed in Susquehanna Township, specifically, because it does not have any existing policies relating to complete streets. A key component to the policy is to implement using exemptions. Furthermore, Susquehanna Township may turn to local municipalities such as Lancaster City and Chester County to gain insight on their complete streets policies. To fund the policy, Susquehanna Township must consider grants, hotel bed taxation, private funding, and may incorporate a fee or credit system similar to Lancaster City. Susquehanna Township must also work with local government and agencies, PennDOT, local businesses, and residents to achieve a common goal for the municipality.

If a policy is implemented, there are many benefits that arise, regardless of whether the policy be broad or comprehensive. For example, Susquehanna Township will have an economic advantage in consumer spending, property values, business benefits, and individual transportation cost savings. There will be social benefits such as improved municipality health and safe active travel. Additionally, there will be environmental preservation by introducing native plants, mitigating greenhouse gases, and introducing an eco-friendly floodplain drainage system. Moreover, local municipalities are working towards the right direction by implementing

⁶⁵ See McCann and Suzanne Rynne, *supra* note 5.

⁶⁶ Id.

complete streets policies. It is important for Susquehanna Township to incorporate green infrastructure, flood plain resistance, recycling, and walkability ordinances to achieve the sustainability aspect of the complete streets policy.

Overall, Susquehanna Township will take large steps towards becoming a sustainable municipality if the complete streets policy is implemented. They will also receive the long-term social, economic, and environmental benefits that come with becoming a sustainable municipality. This policy is essential to the growth of Susquehanna Township because with construction should come adequate accessibility for residents. Susquehanna Township is evolving and shifting with all the new construction, regardless if accessibility can keep up. This policy—which is not as rigid as an ordinance—aims to ensure that the accessibility component will always go hand in hand with construction so the residents of Susquehanna Township can live a safe, healthy, and efficient lifestyle.

**SUSQUEHANNA TOWNSHIP
DAUPHIN COUNTY, PENNSYLVANIA
RESOLUTION NO. 17-R-XX**

**A RESOLUTION OF SUSQUEHANNA TOWNSHIP, DAUPHIN COUNTY,
PENNSYLVANIA, AMENDING CHAPTER X OF THE MUNICIPAL CODE (THE
“STREETS AND SIDEWALK”), TO ADD SECTION X PART X ADOPTING A
COMPLETE STREETS POLICY**

WHEREAS, Safe, convenient, and accessible transportation for all users is a priority of Susquehanna Township;⁶⁷ and

WHEREAS, The term “Complete Streets” describes a comprehensive, integrated transportation network with infrastructure and design that allows safe and convenient travel along and across streets for all users, including pedestrians, bicyclists, persons with disabilities, motorists, movers of commercial goods, users and operators of public transportation, seniors,

⁶⁷ ChangeLab Solutions, *Model Complete Streets Resolution for Local Governments* (October 27, 2017) <http://www.changelabsolutions.org/publications/complete-streets-res-local-gov>

children, youth and families⁶⁸; and

WHEREAS, The design and function of streets has often favored motorists and⁶⁹ made it dangerous for pedestrians, bicyclists, and public transportation riders, particularly children, older adults, and persons with disabilities⁷⁰; and

WHEREAS, Complete Streets improve public health and safety by reducing the risk of injuries and fatalities from traffic collisions for users of all modes of transportation by designing streets with the safety of increased numbers of people walking and bicycling in mind⁷¹; and

WHEREAS, A balanced transportation system that includes Complete Streets is contiguous to streets that are lively with people walking and bicycling to everyday destinations, such as schools, shops, restaurants, businesses, parks, transit and jobs, which in turn enhances neighborhood economic vitality and livability⁷²; and

WHEREAS, Encouraging people to walk, bicycle and use public transit saves energy resources, reduces air pollution and reduces emissions of global warming⁷³ gases from traffic congestion⁷⁴; and

WHEREAS, Complete Streets encourages an active lifestyle by creating opportunities to integrate exercise into daily activities⁷⁵ and promote “active transportation”⁷⁶, thereby helping to reduce the risk of obesity and its associated health problems, which include diabetes, heart disease, high blood pressure, high cholesterol, certain cancers, stroke, asthma and depression⁷⁷; and

WHEREAS, In light of the foregoing benefits and considerations, Susquehanna Township wishes to improve its commitment to Complete Streets and desires that its streets form a comprehensive and integrated transportation network promoting safe, equitable and convenient travel for all users while preserving flexibility, recognizing community context and using the latest and best design guidelines⁷⁸ and standards that incorporate green infrastructure measures where appropriate; ⁷⁹ **THEREFORE BE IT**

⁶⁸ *Id.*

⁶⁹ BOROUGH OF ELIZABETHTOWN, PA., BOROUGH CODE § 2014-12 (2014).

⁷⁰ See ChangeLab Solutions, *supra* note 1.

⁷¹ See ChangeLab Solutions, *supra* note 1.

⁷² *Id.*

⁷³ *Id.*

⁷⁴ See BOROUGH OF ELIZABETHTOWN *supra* note 3.

⁷⁵ See ChangeLab Solutions, *supra* note 1..

⁷⁶ See BOROUGH OF ELIZABETHTOWN *supra* note 3.

⁷⁷ See ChangeLab Solutions, *supra* note 1.

⁷⁸ *Id.*

⁷⁹ See BOROUGH OF ELIZABETHTOWN *supra* note 3.

RESOLVED, By the Board of Commissioners of Susquehanna Township in the Commonwealth of Pennsylvania, as follows:

That Susquehanna Township adopts the Complete Streets Policy (“Policy”) attached hereto as Exhibit A, and made part of this Resolution.⁸⁰

That Susquehanna Township will incorporate Complete Streets into the planning, design and operation of all future municipal street, sidewalk, trail, pedestrian and bicycle pathways and other transportation projects, whether new construction, reconstruction, rehabilitation or pavement maintenance.⁸¹

That the next substantive revision of the Susquehanna Township’s Comprehensive Plan, Subdivision and Land Development Ordinance, and Zoning Ordinance shall incorporate Complete Streets policies and principles consistent with the policy;⁸² **AND BE IT FURTHER**

RESOLVED, That the municipal staff is directed to review and update, as needed, language in the Susquehanna Township Comprehensive Plan, Subdivision and Land Development Ordinance, Zoning Ordinance, and other codes to incorporate the Complete Streets policy outlined in Exhibit A into Chapters 21, 22, and 27 of the Susquehanna Township Code of Ordinances, which shall be effective immediately upon enactment.⁸³

RESOLVED this _____ day of _____, 2017 in public session duly assembled.

ATTEST:

**BOARD OF COMMISSIONERS OF
SUSQUEHANNA TOWNSHIP**

David W. Kratzer, Jr.
Secretary/Manager

Frank Lynch
President, Board of Commissioners

[Township Seal]

⁸⁰ See ChangeLab Solutions, *supra* note 1.

⁸¹ See BOROUGH OF ELIZABETHTOWN *supra* note 3.

⁸² See ChangeLab Solutions, *supra* note 1.

⁸³ TOWNSHIP OF LANCASTER. Res. No. 2014-14 (2014).

EXHIBIT A

SUSQUEHANNA TOWNSHIP

POLICY NO. X-XX

**AN POLICY OF SUSQUEHANNA TOWNSHIP, DAUPHIN COUNTY,
PENNSYLVANIA, AMENDING CHAPTER X - STREETS AND SIDEWALK – OF THE
SUSQUEHANNA TOWNSHIP MUNICIPAL CODE TO ADD SECTION X PART X
COMPLETE STREETS**

PART 3 Complete Streets

SECTION 1. DEFINITIONS

“Complete Streets” A comprehensive, integrated transportation network with infrastructure and design that allow safe and convenient travel along and across streets for all users including:

- (1) pedestrians;
- (2) bicyclists;
- (3) persons with disabilities;
- (4) motorists;
- (5) movers of commercial goods;
- (6) users and operators of public transportation;
- (7) seniors;
- (8) children;
- (9) youth; and
- (10) families.⁸⁴

“Street” Any right of way, public or private, including arterials, collectors, alleys, ways, lanes, and roadways by any other designation, as well as bridges, tunnels and any other portions of the transportation network.⁸⁵

“Street Project” The construction, reconstruction, retrofit, maintenance, alteration or repair of any street, and includes the planning, design, approval and implementation processes.⁸⁶

“Susquehanna Township” A specific township in Dauphin County, Pennsylvania.⁸⁷

“Susquehanna Planning Commission” means A specific administrative group in Susquehanna Township that service in an advisory capacity to the Board of Commissioners.

“Board of Commissioners” A specific elected administrative group in Susquehanna Township that serves both the executive and the legislative duties, such as enacting local ordinances and administer them. They approve budgets, oversee spending and hire county employees, along other duties.

SECTION 2. PURPOSE

- (1) Susquehanna Township seeks through this Complete Streets Policy to create an interconnected network of streets, sidewalks, pathways and other transportation facilities that accommodate users of all ages and abilities and modes of travel, including motorists, pedestrians, bicyclists and transit users, in a manner consistent with community context, comprehensive plan, and community goals.
- (2) The intent of this policy is to better integrate physical activity into the daily lives of those who live in and visit Susquehanna Township through an increased emphasis on active transportation modes which will contribute to improved safety, health, reduced traffic congestion, improved air quality and reduce negative impacts on the environment, and establish an economically sustainable community.⁸⁸

SECTION 3. GOALS

The Complete Streets Policy seeks to achieve the following goals:

⁸⁴ *Id.*

⁸⁵ *Id.*

⁸⁶ *Id.*

⁸⁷ Susquehanna Township. <https://www.susquehannatwp.com>

⁸⁸ See BOROUGH OF ELIZABETHTOWN *supra* note 3.

- (1) Incorporate the principles in this policy into all aspects of the transportation project development process, including project identification, scoping procedures, design and all phases of construction.
- (2) Ensure the use of the latest and best design standards, policies and guidelines.
- (3) Provide flexibility for different types of streets, areas and users.

SECTION 4. DIRECTIVES

- (1) **Application**—This part applies to the following:
 - (a) All municipal street, sidewalk and trail projects, including new construction, reconstruction or rehabilitation projects to accommodate users of all ages and abilities, including pedestrians, bicyclists, transit users, motorists, emergency responders and other road users.
 - (b) All street projects whether public or private and all improvements regardless of funding sources.⁸⁹
- (2) **Requirements**—The following shall apply:
 - (a) Accommodations for all users of the surface transportation network shall be in accordance with the latest and best “Complete Streets” standards, principles, policies and guidelines and shall be consistent with the context and character of the surrounding built and natural environments and enhance the appearance of such.⁹⁰
 - (b) Roadways, sidewalks, shared-use paths, street crossings, pedestrian signals, signs, street furniture, transit stops and facilities and all connecting pathways shall be designed, constructed, operated and maintained so that all users of the surface transportation network can travel safely, reliably and independently.⁹¹
- (3) **Alternative Routes**—Reasonable effort shall be made to identify adjacent alternative routes methods of travel to provide a safe, reliable and interconnected surface transportation network where accommodations for all users cannot be made.⁹²
- (4) **Standards**—Complete Streets will be designed, built and maintained accordance with accepted federal, state and local standards and guidelines that represent state-of-the-art design standards and best practices innovative and/or non-traditional design options will also be considered, as appropriate.⁹³

SECTION 5. IMPLEMENTATION

The following steps shall be taken immediately upon the effective date of this policy:

- (1) Susquehanna Township staff are directed to review and update, as needed, language in the Susquehanna Township Comprehensive Plan, Subdivision and Land Development Ordinance, and Zoning Ordinance, other codes, to incorporate the intent of this Complete Streets policy.⁹⁴ Susquehanna Planning Commission will update and/or create a Capital Improvement Program that will provide the financial mechanism and commitment to support complete street policies.⁹⁵

⁸⁹ See Lancaster County Planning Department, *supra* note 22.

⁹⁰ *Id.*

⁹¹ *Id.*

⁹² *Id.*

⁹³ See BOROUGH OF ELIZABETHTOWN *supra* note 3.

⁹⁴ *Id.*

⁹⁵ See Lancaster County Planning Department, *supra* note 22.

- (2) Adopt and implement design guidelines on how to build Complete Streets, by the Board of Commissioners.⁹⁶
- (3) As feasible, Susquehanna Township shall incorporate Complete Streets infrastructure into existing streets to improve the safety and convenience of users, construct and enhance the transportation network for each category of users, and create employment. Complete Streets may include:
 - (a) street and sidewalk lighting;
 - (b) sidewalks and pedestrian safety improvements (median refuges or crosswalk improvements);
 - (c) improvements that provide Americans with Disabilities Act compliant accessibility;
 - (d) transit accommodations (including improved pedestrian access to transit stops and bus shelters);
 - (e) bicycle accommodations (including bicycle storage),
 - (f) bicycle parking, bicycle routes,
 - (g) shared-use lanes,
 - (h) wide travel lanes or bike lanes as appropriate;
 - (i) street trees,
 - (j) boulevard landscaping,
 - (k) street furniture and adequate drainage facilities; and
 - (l) reduction in the number of travel lanes or removal of on-street parking.⁹⁷
- (4) The Susquehanna Township Planning Commission shall prepare and provide to Board of Commissioners an annual presentation, based on performance measures seen in subsection F (6) and subsection (H), on the municipality's consistency with this Complete Streets policy with respect to all street construction, reconstruction, rehabilitation and pavement maintenance projects.⁹⁸
- (5) The Susquehanna Township Board of Commissioners shall provide workshops on the design and implementation of this policy to all relevant staff, decision makers, planners and engineers, and develop a plan for providing such training for new hires.⁹⁹
- (6) A system of performance measures (subsection H) will be implemented and data collected and analyzed to determine the increased use of active transportation modes and the success of this policy.¹⁰⁰
- (7) Susquehanna Township shall actively seek sources of public and private funding to assist in the implementation of this policy.¹⁰¹

⁹⁶ See BOROUGH OF ELIZABETHTOWN *supra* note 3.

⁹⁷ Massachusetts Municipal Association, *Model Policy for Complete Streets Incorporates* (May 30, 2017) https://www.mma.org/sites/default/files/resources/complete_streets_model_ordinance_0.pdf

⁹⁸ See Lancaster County Planning Department, *supra* note 22.

⁹⁹ *Id.*

¹⁰⁰ See BOROUGH OF ELIZABETHTOWN *supra* note 3.

¹⁰¹ See ChangeLab Solutions, *supra* note 1.

SECTION 5. EXEMPTIONS

Exemptions from the directives and design guidelines within the Complete Streets Policy are reviewed and approved by the Susquehanna Township Board of Commissioners and Susquehanna Township Planning Commission. The Susquehanna Township Board of Commissioners has finality on the exemption. Exemptions shall not include modifications or waivers from the Zoning and Subdivision and Land Development Ordinances and other applicable Township ordinances. Exemptions from the Complete Streets Policy shall be implemented under the following conditions:

- (1) Written justification, to be reviewed and approved by the Susquehanna Township Planning Commission, that establish such new facilities would require an excessive and disproportionate cost;
- (2) Written justification, to be reviewed and approved by the Susquehanna Township Planning Commission, that inclusion of such new facilities would create a public safety risk for users of the public right-of-way;
- (3) Written justification, to be reviewed and approved by the Susquehanna Township Planning Commission, that there is insufficient space within the right-of-way to safely accommodate such new facilities;
- (4) The Susquehanna Township Planning Commission shall determine that pedestrians and bicyclists are prohibited by law from using the facility;
- (5) The project is deemed by the Susquehanna Township Planning Commission to be limited to routine or seasonal maintenance activities such as mowing, sweeping or spot pavement repairs.¹⁰²
- (6) Surface transportation projects in the final stages of design or under construction at the time of adoption are exempt from this policy.¹⁰³

SECTION 6. PERFORMANCE MEASURES

There shall be an annual presentation of the performance measures to the Board of Commissioners of Susquehanna Township on the progress and the implementation of the complete streets policy including, but not limited to the following performance measures to the extent the information is available to the department:¹⁰⁴

- (1) Total miles of bike lanes/trails built or striped;
- (2) Linear feet of new sidewalks;
- (3) Number and location of ADA accommodations built in public sidewalks and streets;
- (4) Number of transit accessibility accommodations built or installed;
- (5) Number of new curb ramps installed on city streets;
- (6) Number of new street trees planted and removed by the department of public works;
- (7) Crosswalk and intersection improvements;
- (8) Rate of crashes, injuries and fatalities by mode;

¹⁰² See Lancaster County Planning Department, *supra* note 22. (Applies to entire section)

¹⁰³ See Lancaster County Planning Department, *supra* note 22. (Applies to entire section)

¹⁰⁴ CITY OF HARTFORD, CT., ORDINANCES ch. 31, art. X, §301 (2016). (Applies to (a)-(k) in this section)

- (9) Performance of the transportation and complete streets network, including speeds volumes and comparison to goals;
- (10) Number and location of exemptions granted by the Susquehanna Township Planning Commission from this policy; and
- (11) Bicycle and pedestrian counts at key locations, which may be conducted by Township employees or obtained from other governmental or private entities.

SECTION 7. EFFECTIVE DATE CLAUSE

The Susquehanna Township Complete Streets Policy shall be in effect immediately upon adoption.