



March 31, 2022

Pennsylvania Senate Transportation Committee

Senator Wayne Langerholc, Chair

Senator Marty Flynn, Vice-Chair

Thank you for the opportunity to testify before your committee.

My name is Sarah Clark Stuart and I am Executive Director of the Bicycle Coalition of Greater Philadelphia. I am speaking today on behalf of my organization, which has 2,300 members and represents bicyclists throughout the five counties of SEPA and on behalf of Bike Pittsburgh, which has over 3,000 members in the Greater Pittsburgh metropolitan area.

I am also a member of PennDOT's Pedestrian and Pedalcycle Advisory Committee (PPAC) and have been Chair since 2016. Scott Bricker, the E.D. of Bike Pittsburgh also sits on PPAC and is the Vice Chair.

I am here today to provide testimony on why passing HB140, aka “Susan and Emily’s Law” Parking-Protected Pedestrian Plazas and Bike Lanes, which was introduced by Representative David Maloney in January 2021, is so important for Pennsylvania.

Together, the Bicycle Coalition of Greater Philadelphia and Bike Pittsburgh, have been working since 2018 to urge the General Assembly to pass legislation to make a small technical change to the Pennsylvania Vehicle Code to allow for parking protected bike lanes and pedestrian plazas on state roads.

What does this bill do?

Currently, because of the vehicle code’s language, municipalities in Pennsylvania and PennDOT lack the ability to easily install “Parking Protected” bike lanes and pedestrian plazas on state roads. This type of design uses parked cars to physically separate pedestrians and people on bikes or walking from car traffic. However, due to the technicality in the PA Vehicle Code that requires cars to be parked within 12” of the curb, Pennsylvanians are denied this life-saving street design, which has been used successfully in states and municipalities across the country.

Legislative History

State Representative David Maloney (R-130), introduced language to fix this technicality three times since 2018. He has done this because he believes it’s important for Pennsylvania to do everything possible to make its roads safe. He introduced **HB140** on January 8, 2021 and the bill passed the House in March 18, 2021 (201-0). He also introduced identical legislative language that passed the House twice, in 2018 (HB1657 passed 187-0) and 2019 (HB792 passed 200-1).

This Senate committee passed the same legislation out in February 2020 and it went to the floor, but was not brought up for its third vote.

To begin, there are two important points I wish to make. First, the reason parking protected bike lanes currently are not permitted on state roads is not because they were specifically forbidden; Pennsylvania’s vehicle code was written years before parking protected bicycle lanes emerged as

a traffic engineering design and as it happens, the code is worded in such a way that makes this type of design non compliant.

A second important point is that parking protected bike lanes are one iteration of a separated bike lane. The vehicle code does permit separated bike lanes if they are made with delineator posts, curbing, planters, jersey barriers, etc. and PennDOT has and does design those kinds of separated bike lanes on state roads. This legislation would allow for a different iteration of a separated bike lane, in which parked cars act as the separation between a bike lane and a motor vehicle lane, instead of posts, curbing or another form of separation structure. This legislation would enable PennDOT and municipal engineers to have a new tool in their traffic engineering toolbox of bike lane designs on state roads.

Why is this legislation important?

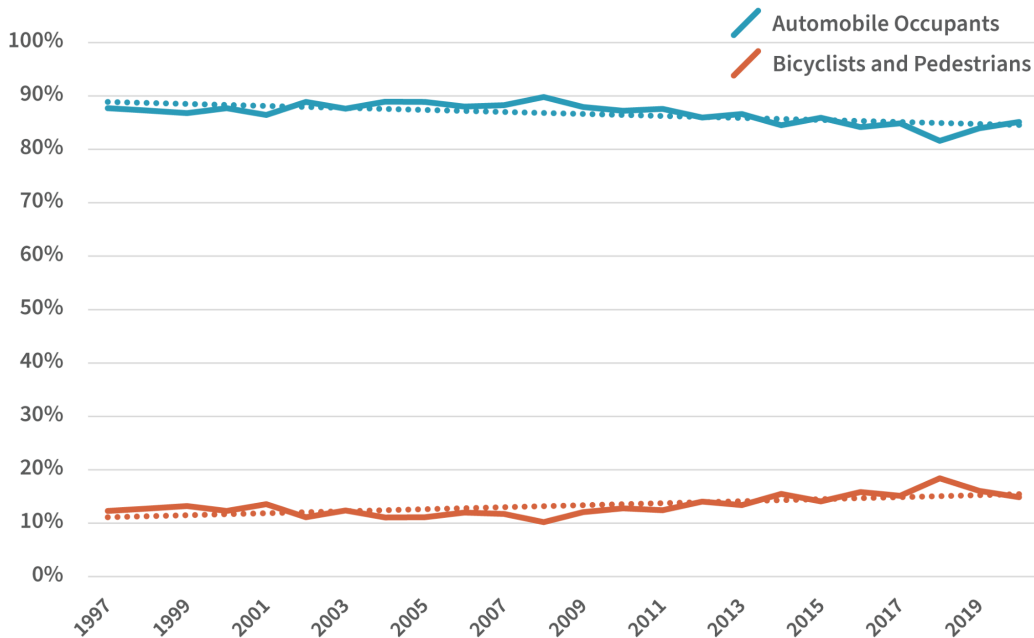
There are many reasons why this legislation is needed. Pennsylvania needs to do more to attract people to use a bicycle for transportation to reduce greenhouse gas emissions from the motor vehicle sector to address climate change. Many Pennsylvania communities want to attract more people to use bicycles instead of motor vehicles to address congestion. Many Pennsylvanians don't have access to safe roads or high quality bicycle facilities, so for the sake of equity, having an additional tool to increase on state roads for those who need to use a bicycle is critical. And more people on bikes increases economic activity along business corridors, which usually want to retain parking. Lastly, Pennsylvania needs to be doing more to protect bicyclists and pedestrians.

Additionally, separated bike lanes allow communities to build low stress bicycle networks. In most communities, a little over 50% of a population of the total population of adults who have expressed a desire to bicycle are "interested but concerned"; they want to bicycle, but prefer off-street bicycling or traffic calmed residential roads. They are not confident enough to want to bike on shoulders of roads where posted speed limits are 35MPH or higher. In order to attract those cyclists, communities need low stress networks (also referred to as an "all ages and abilities networks"), ones that are designed to be safe and comfortable for all users. Low-Stress Networks rely on separating bicyclists from traffic using separated bike lanes and shared use paths.

According to the FHWA, one-way separated bike lanes have been shown to reduce injury risk and increase bicycle ridership due to their greater actual and perceived safety and comfort.¹

Another important reason is that Pennsylvania is not doing enough to protect bicyclists and pedestrians and bicyclists and pedestrians are faring badly on Pennsylvania’s roadways.. Currently, on average over the past five years, 16% of those killed on Pennsylvania’s roads are bicyclists or pedestrians. Notably, between 1997 and 2001, the average was 12.8%. This confirms that there is an increasing trend in the percentage of persons killed in traffic crashes who are bicyclists or pedestrians while the percentage of motorists killed is declining. In other words, while fewer drivers and passengers are dying on Pennsylvania’s roadways, the same is not the case for the roads’ most vulnerable users. The single best thing that the Commonwealth can do to counter this terrible trend is to expand the number of traffic engineering tools available to enable roadway designs that calm traffic and that offer protection to people who use them.

Composition of Traffic Fatalities in Pennsylvania; 1997-2020



The distinction of having over 15% of traffic deaths be vulnerable users now puts Pennsylvania among the group of states that, under the new Bipartisan Infrastructure Law, are subject to the new “Vulnerable Road User Special Rule”, which requires them to spend at least 15 percent of

¹ FHWA. 2019. Bikeway Selection Guide https://safety.fhwa.dot.gov/ped_bike/tools_solve/docs/fhwasa18077.pdf

federal Highway Safety Improvement Program funds on projects specifically focused on those vulnerable users. This distinction is not one Pennsylvania should wear proudly and again, makes the case for why PennDOT needs more tools to redesign Pennsylvania’s state roads so that they are safe for everyone no matter how they want to move.

In 2019, the National Transportation Safety Board² evaluated bicyclist safety and found that 56% of US bicyclist fatalities are mid-block. While intersection crashes are more common (65%), it’s the mid block crashes where the fatalities predominantly occur. For this reason, having physical separation between bicyclists and motorists to reduce crashes that occur when motorists try to overtake bicyclists is critical.

Table 6. US bicyclist fatalities, nonfatal injuries, and crashes by crash location from 2014 through 2016.

Location	Based on FARS Data		Based on NASS GES/CRSS Data			
	Fatalities	%	Nonfatal Injuries	%	Crash Counts	%
Midblock	1,361	56	31,000	19	34,000	19
Intersection	898	37	103,000	64	113,000	65
Others ^a	151	6	26,000	16	26,000	15
All ^b	2,410	100	160,000	100	173,000	100

^a The category Others includes driveway access areas and entrance/exit ramps.

^b Total percent may not add up to 100 due to rounding. For estimates based on NASS GES/CRSS data, the percentages were computed using the actual weight while nonfatal injury and crash estimates were rounded to the nearest thousand. Values for the category All were computed using the actual weights before rounding; therefore, adding the rounded individual values may not equal the column totals.

People, Not Numbers

Across the Commonwealth, over 1000 men, women and children are killed annually in traffic crashes, roughly 180 of them are bicyclists or pedestrians. But, it’s important to recognize that there are faces to the numbers. In particular, I want to tell you about two young women who this bill is named for.

Susan Hicks was a University of Pittsburgh cultural anthropologist who worked at Pitt’s Center for Russian and East European Studies. Susan was a beloved mentor and advisor to students. She

² Bicyclist Safety on US Roadways: Crash Risks and Countermeasures. Safety Research Report. NTSB/SS-19/01 PB2019-101397 <https://www.nts.gov/safety/safety-studies/Documents/SS1901.pdf>

was killed by a driver while riding her bicycle home from work on Forbes Ave in Pittsburgh, which was where the City of Pittsburgh wanted to put a parking protected bike lane, but couldn't due to the current code language. A scholarship fund has been set up in her honor:

<https://engage.pitt.edu/project/1314>

Emily Fredricks was a 24 year old head pastry chef at Le Cheri restaurant in Philadelphia, where she had recently moved to be closer to her family who live in New Jersey. She so enjoyed traveling and had traveled to Spain, Italy and France in high school and had also visited Peru in 2016. Emily was riding her bicycle to her job in an unprotected bike lane when a sanitation truck turning right on a green light struck and killed her. A foundation was set up in her name to foster the people, family values and things that she loved

<https://www.emilyfredricksfoundation.org/about-emily>

Their families have been working along with us to advocate for increased safety so that no other family goes through the pain and suffering that they have experienced. For the families of victims like Susan and Emily, we ask that this Committee take action to make a much needed tool available to the state's roadway engineers.

Protected Bike Lanes Provide More Safety

Protected bicycle lanes, whether protected by posts, curbing or parked cars, provide increased safety not only to bicyclists, but to pedestrians and motorists as well. They reduce the crossing distance of motor vehicle lanes that pedestrians have to cross and they calm motor vehicle speeds without impairing travel time.

In 2019, researchers at the University of Colorado Denver and the University of New Mexico documented that cities with protected and separated bike lanes had 44 percent fewer deaths than the average city.³

³ Wesley E. Marshall & Nicholas Ferenchak. 2019. Why cities with high bicycling rates are safer for all road users. <https://www.sciencedirect.com/science/article/abs/pii/S2214140518301488?via%3Dihub>

In a 2014 evaluation of protected bicycle lanes by the National Institute for Transportation and Communities⁴ researchers found after 144 hours of video analysis and studying 12,900 bicycles through intersections, no collisions or near collisions were observed and only 6 minor conflicts were observed. At turning or mixing zones, there were 5 minor conflicts in 6,100 though bicycles or 1 minor conflict for every 1,200 though bicycles.

A worthwhile note, since that study, intersection design guidance has been updated and is capable of handling issues such as sight distance, sequencing of movements, traffic signals and pavement markings.

In a 2014 analysis of 30 miles of bike lanes by New York City Department of Transportation⁵, including parking protected bicycle lanes, NYCDOT found that crashes with injuries dropped by 17%, pedestrian injuries dropped by 22%, total injuries dropped by 20%, and there was a 75% decreased in risk of serious injury to cyclists between 2001 to 2013 and cyclist injury risk has generally decreased on protected bicycle lane corridors as cyclist volumes rise and cyclist injuries decreased.

In 2019, The National Transportation Safety Board⁶ made the following statements about safety improvements provided by separated bike lanes: "There has been more research done on separated bike lanes in other countries where such bicycle facilities are more common. Research in those countries has shown that separated bike lanes improve safety. For example, one study in Montreal, Canada, analyzed emergency medical records and found that, compared to roads with similar characteristics, bicyclists on roads with separated bike lanes had 28% less injury risk. A study conducted in Toronto and Vancouver, Canada, of 690 bicyclists injured along 14 types of bicycle routes with specific bicycle facilities, found that, among all bicycle facilities, bicyclists using separated bike lanes had the lowest injury risk; as much as nine times lower than those riding on major streets with on-street parking but no bicycle facility⁷. A separate study, using the

⁴ Lessons from the Green Lanes: Evaluating Protected Bike Lanes in the U.S. 2014. National Institute for Transportation and Communities. NITC - RR-583 https://nacto.org/wp-content/uploads/2015/07/2014_NITC-RR-583_Lessons-from-the-Green-Lanes-Evaluating-Protected-Bike-Lanes-in-the-U.S..pdf

⁵ Protected Bicycle Lanes in NYC. 2014. New York City Department of Transportation. <http://www.nyc.gov/html/dot/downloads/pdf/2014-11-bicycle-path-data-analysis.pdf>

⁶ See Footnote 1

⁷ Teschke K., M. A. Harris, C. C. Reynolds, M. Winters, S. Babul, M. Chipman, M. D. Cusimano, J. R. Brubacher, G. Hunte, S. M. Friedman, M. Monro, H. Shen, L. Vernich, and P. A. Cripton. 2012b. "Route infrastructure and the risk of injuries to bicyclists: a case-crossover study." American Journal of Public Health 102(12):2336-2343.

same dataset collected in Toronto and Vancouver, focused on injuries at nonintersection locations and found that bicyclists had a 95% less chance (that is, an odds ratio of 0.05) of being injured when traveling on separated bike lanes.”

In summary, NTSB concluded “that separated bike lanes could prevent bicycle crashes involving motor vehicles at midblock locations and, thereby, also reduce the number of fatalities and serious injuries associated with such crashes.”

Just this month, Philadelphia transmitted a memo⁸ that evaluated before and after data on several parking protected bike lanes that were permitted in a pilot program by PennDOT District 6. That report found that

- 1) for two corridors with sufficient data, the lanes decreased crashes by 15-37%;
- 2) speeding decreased between 9-35%;
- 3) travel times were largely unaffected by the installation of parking protected lanes and
- 4) bicycle ridership increased between 44-300%.

These results truly support that parking separated bicycle lanes provide increased safety.

Separated bicycle facilities design guidance that supports safety is available at the federal and state levels

There is ample guidance from the federal and state level to enable PennDOT to design these types of bicycle lanes.

PennDOT itself provides guidance on intersection designs and separated bicycle lane designs in its Traffic Engineering Manual (Publication 46)⁹ and recently updated Design Manual 2 Bicycle Chapter¹⁰. When HB140 passes, PennDOT will update its guidance again to address parking separated bike lanes.

⁸ March 7, 2022 Memo Re: City of Philadelphia Parking Separated Bicycle Lane Pilot Progress Report

⁹ <https://www.dot.state.pa.us/public/PubsForms/Publications/PUB%2046.pdf>

¹⁰ Design Manual 2: Highway Guide

<https://www.dot.state.pa.us/public/PubsForms/Publications/PUB%2013M/Pub%2013M%20Title%20Page.pdf>

The Federal Highway Administration (FHWA) has included separated bike lanes in its Bikeway Selection Guide¹¹ and its Small Towns and Rural Road Networks Guide¹². FHWA also recently released in 2021 a guide specifically about on street parking protected bike lanes¹³

American Association of State Highway and Transportation Officials (AASHTO) is in the process of updating its Bicycle Guide¹⁴ and has an entire chapter supporting designs of separated bike lanes.

Additional reasons why this bill is needed:

1. 84 cities use the parking protected bike lane design, and 13 states permit them. Why shouldn't Pennsylvania?
2. Municipalities are bearing the cost financially by being unable to use these designs. Many bike lane projects are either stalled and cannot move ahead until this legislation passes or have to be downgraded to less protective designs because of the vehicle code's restrictions.
3. By 2025, more than one in five (20%) of Pennsylvania residents will be 65 or older. Seniors using roads need greater protection.
4. PennDOT has determined that it cannot re-interpret the vehicle code to enable this design to be permitted. The only way to remedy the problem is to make a technical fi to the vehicle code.
5. This law does not mandate the use of parking protected bike lanes, it only permits their use by state engineers should they deem these types of lanes the safest and best design for the roadway.

¹¹ FHWA. 2019 Bikeway Selection Guide. https://safety.fhwa.dot.gov/ped_bike/tools_solve/docs/fhwasa18077.pdf

¹² FHWA. 2016. The Small Town and Rural Multimodal Networks Guide https://www.fhwa.dot.gov/environment/bicycle_pedestrian/publications/small_towns/

¹³ FHWA. 2021 On-Street Motor Vehicle Parking and the Bikeway Selection Process. https://safety.fhwa.dot.gov/ped_bike/tools_solve/docs/FHWA-SA-21-009_On_Street_Motor_Vehicle_Parking.pdf

¹⁴ AASHTO Guide for the Development of Bicycle Facilities <https://tooledesign.com/project/update-to-the-aashto-guide-for-the-design-of-bicycle-facilities/>

Who supports this legislation?

- Bicycle Coalition of Greater Philadelphia, Bike Pittsburgh and **32 other local bicycle advocacy organizations, bicycle clubs and shops** from around the Commonwealth.
- The League of American Bicyclists.
- Pennsylvania Environmental Council
- The Transportation Management Agencies of Chester County, Bucks County, Greater Valley Forge and Central Philadelphia
- Mayors Bill Peduto (former) of Pittsburgh, Mayor Jim Kenney of Philadelphia, Eric Pappenfuss of Harrisburg and Danene Sorace of Lancaster co-signed a 2019 letter asking the state legislature to pass a bill to make these kinds of bike lanes possible.
- Both City Councils of Pittsburgh and Philadelphia passed “Wills of Council” in 2019 asking for flexibility in bike lane design, including Parking Protected Bike Lanes.
- PennDOT and the Pedestrian and Pedalcycle Advisory Committee consider this legislation a high priority and PPAC submitted a letter to the General Assembly to pass this legislation in early 2021.

Upon the conclusion of this hearing, I urge this committee to schedule HB140 for a committee vote as soon as possible to move this bill forward. Pennsylvanians have been waiting for nearly 5 years for this bill and there is urgency in getting this bill passed as soon as possible.



WHY PENNSYLVANIA NEEDS HB140

04/04/22

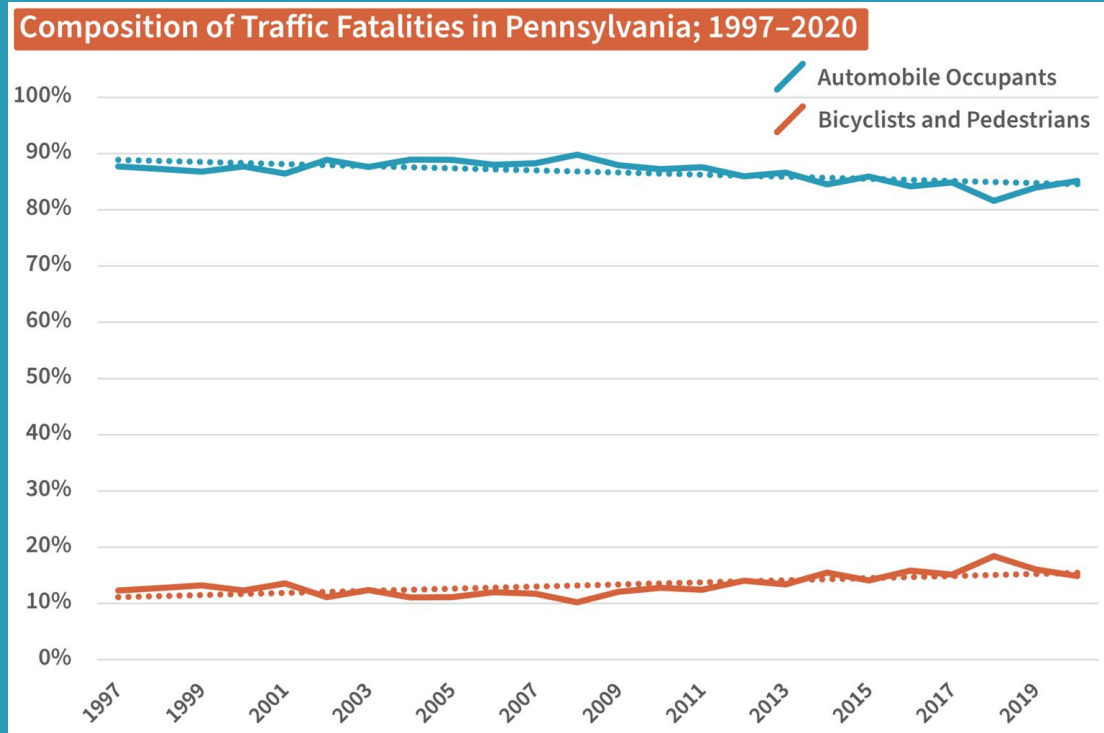
Sarah Clark Stuart, Executive Director
Bicycle Coalition of Greater Philadelphia



Parking Separated Bike Lanes



Bicyclists/Pedestrians Need Safer Roads



Susan Hicks and Emily Fredricks



Parking Separated (and separated) bike lanes:

- Create “low-stress” lanes that increase bicycle volumes
- Reduce sidewalk riding
- Lower vehicle speeds w/o impacting vehicle volumes
- Reduce interactions b/w vehicles and cyclists in the middle of the block
- Eliminate risk of side swiping; which is the most fatal type of bike/vehicle crash
- Shorten crossing distances for pedestrians
- Maintain parking availability
- Enhance economic activity by bringing customers to businesses

Safety Benefits Have Been Documented:

- National Transportation Safety Board
- Federal Highway Administration
- National Institute for Transportation & Communities
- Academic Studies
- New York City DOT
- City of Philadelphia

KEY FINDINGS

- Crashes decreased between 15 and 37 percent where sufficient years of data are available to analyze.
- Speeding decreased on pilot corridors by up to 35 percent.
- Bicycle ridership increased between 44 and 300 percent on the pilot corridors.

Design Guidance Available for PSBLs and Intersections

FHWA Bikeway Selection Guide & On-Street Motor Vehicle Parking and the Bikeway Selection Process

FHWA Small Town & Rural Multimodal Networks Guide

PennDOT Pub 46 and DM2

Broad Support from Across the State







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