

## CITY OF PITTSBURGH

**TO:** Mr. Nolan Ritchie

**DEPARTMENT:** PA Senate Transportation Committee

**FROM:** Nicholas Ross, P.E.

**DEPARTMENT:** Department of Mobility & Infrastructure

**DATE:** April 1, 2021

**SUBJECT:** Parking Protected Bike Lane Testimony

### **Introduction**

Good morning, and thank you for the opportunity to speak on this important issue. My name is Nick Ross, P.E. and I serve as the Chief Traffic Engineer for the City of Pittsburgh's Department of Mobility and Infrastructure.

In this position, I oversee all operations and maintenance of the city's traffic signals, street signage, and pavement markings. My responsibilities cover oversight of street design, including all bike lanes. Prior to joining the City, I served as a Technical Practice Leader for a large international architecture and engineering firm where I gained experience working in more than 12 states across the country. Both professional experiences have provided me with positions of leadership in planning, designing, constructing, operating, and maintaining Parking-Protected Bike Lanes.

My testimony on this issue comes not from a place of bicycle advocacy, but from our mission to provide the public with high-quality services as efficiently as possible. Passage of this bill will accomplish the goal of improved public service by three main objectives: reducing red tape, improving cost efficiency, and increasing public safety.

### **Reducing Red Tape**

While regulations serve an important role in managing the design and operation of our public rights of way, they can also lead to unintended consequences. Certain rules and regulations have been written prior to advancements in knowledge and technology that leave them obsolete, or with language that ends up impacting aspects of life the regulation was never intended to control. These cases leave us, as public servants entrusted with following said regulations, incapable of providing the public the best solutions available. We have no technical, financial, or moral explanation for why such rules exist, only that they do. These explanations are extremely unsatisfying to the public we serve, and they often express this to us by complaining about excessive red tape holding the government back. This leads to distrust in our institutions, and the elected officials entrusted with writing the rules that govern them.

Before debating the merits of Parking-Protected Plazas and Bike Lanes, I believe it is important to acknowledge that the reason they are currently illegal has nothing to do with them and their

function within the public right of way. PA Title 75 – 3354 is intended to regulate the driver's responsibility for the manner in which they park their vehicle within the public right of way. By requiring the vehicle to be parked within 12" of curb, or in the absence of curb the outer edge of shoulder, the regulation ensures that parked vehicles do not become an obstruction to traffic. The intent of this regulation can be deduced by language in Section 3354 (c), which allows Angle Parking only "...after an engineering and traffic study has determined that the highway is of sufficient width to permit angle parking **without interfering with the free movement of traffic.**"

The intent of the regulation is certainly valid, however, the specific language chosen has now proven to be excessive and burdensome. The regulation was written prior to the development of parking-protected plazas and bike lanes, therefor it did not have the ability to include similar definition of features such as "curb" and "shoulder" to define the orientation of legal parking. Parking-protected plazas and bike lanes can easily be designed in such a way that parked vehicles do not interfere with the free movement of traffic, as evidenced by their successful use in the city of Pittsburgh and numerous states across the country. In my role as Chief Traffic Engineer, I oversaw the design and implementation of a parking-protected bike lane on a city street, Brighton Road. By using clear signage and pavement markings to delineate the parking area, we have successfully implemented an improved design that saved on-street parking while improving vehicular, pedestrian, and cyclist safety. We have received no reports of crashes or property damage, and residents who were initially skeptical of the project have not seen their concerns come to fruition. This project could not have been accomplished on State roads under current Title 75 regulations.

The current regulation does not prohibit the implementation of bike lanes, only those of a certain type and for reasons having nothing to do with bike lanes at all. The regulation removes an important tool from the engineer's toolbox for no reason associated with the issues we're entrusted with fixing.

Passage of "Susan and Emily's" law will reduce red tape that currently frustrates both engineers and the public we serve.

### **Improving Cost Efficiency**

A parking-protected bike lane works to increase vehicular, pedestrian, and cyclist safety by shifting the bicycle rider from between driving lane and parking lane to outside of the parking lane. This orientation reduces conflicts between driver and cyclist, decreases the exposed distance a pedestrian has to cross an intersection, and protects the cyclist with a physical object between them and passing vehicles.

Engineers currently can and do create bike facilities with this same general concept, called "side paths" or "shared use trails". Path and Trails put the bike rider outside of moving and parked vehicles, typically elevated at curb level. These can be found in numerous places across the State, have been designed and approved by PennDOT, and are most commonly built using State and Federal grants intended to target safety and multimodal improvements. They are commonly known as the safest and most comfortable type of bike facility for the broadest swath of the public. They reduce stress on both cyclist and driver, and are the most-used of all types of bicycle infrastructure.

The main deterrent to creating more side paths and shared use trails is cost. These facilities can cost more than \$1,000,000 per mile, as they often require relatively significant construction of earthwork, curb, drainage, and asphalt or concrete surfacing.

Parking-protected bike lanes reduce cost to the taxpayer by providing the same benefit and more within the existing street width. No excavation, curb, drainage, and new surfacing is required for implementation. They allow the engineer to do more with what we already have.

Further, they can be created in a manner that retains the existing sidewalk for pedestrians-only, further improving safety and comfort for anyone using the street.

The city of Pittsburgh's Brighton Road project, by comparison, cost less than \$200,000 per mile. While we built this specific project as part of a larger city-wide, grant-funded initiative its relatively low cost would enable us to create a similar project through our annual paving and pavement marking capital budget funding. Parking-protected plazas and bike lanes can be built as part of regular street paving operations, further improving cost efficiency by simply redesigning the signing and pavement markings that would have to be re-applied after paving is completed anyway. This strategy is recognized and encouraged by the Federal Highway Administration as part of their "Road Diet" safety improvement strategy.

The State would be able to build five-times the amount of parking-protected bike lanes than side paths for the same amount of taxpayer funding.

Passage of "Susan and Emily's law" will improve cost efficiency for the taxpayer by allowing engineers to design streets in a manner that better utilize what we already have in order to accomplish the safety and comfort goals that the public demands.

### **Increasing Public Safety**

The city of Pittsburgh takes a holistic approach to street redesigns using a policy framework known as "Complete Streets". This concept is one that ensures the safety of all types of people who use a street; drivers, walkers, and cyclists. We do not approach a problem or challenge with a bias that turns the goal of the project into implementing a certain type of design. We collect data, identify problems, apply proven countermeasures, and then transparently work with the public to gather their thoughts and insights in order to iterate and improve our proposed solutions.

Bicycle facility selection is typically dictated by the speed and number of cars that use a street. Bicycle riders of all ages and abilities can safely share very low volume and low speed streets with cars in such places as parks because conflicts are infrequent and speed of both cars and riders are relatively equal. As the volume and speed of vehicles increases, so does the probability of a crash and the severity of injury when a crash happens. The engineering solutions for these conditions include separating bike riders from the flow of car traffic, first by simple painted bike lanes and further by some form of physical separation.

The need for physical separation, such as parking-protected bike lanes, is a function of street usage and not something that is or should be pushed for simply by the passage of "Susan and

Emily's Law". Physical separation often, if not always, requires full removal of curbside street parking. This impact can be significant depending on the context, and often ends up prohibiting the implementation of needed safety improvements. Parking-protected bike lanes, however, utilize the existing street parking as a safety feature. They retain all legal parking in a manner that alternative bike lane designs could not.

A parking-protected bike lane works to increase vehicular, pedestrian, and cyclist safety by shifting the bicycle rider from between driving lane and parking lane to outside of the parking lane. This orientation reduces conflicts between driver and cyclist, decreases the exposed distance a pedestrian has to cross an intersection, and protects the cyclist with a physical object between them and passing vehicles.

Drivers see benefits from parking-protected bike lanes by encountering fewer conflicts with bike riders, who are now outside of their travel lane. This provides more consistent and predictable behavior, while reducing conflicts between drivers and bike riders. This design also has the effect of inducing lower driving speeds, which drastically improves safety and reduces the chance of crashes.

Pedestrians see benefits from parking-protected bike lanes through greatly improved intersection safety. This facility type can significantly decrease the crosswalk distance within which walkers are exposed to moving traffic while also increasing sight distance around corners of the intersection. In a typical curbside parking orientation, parked vehicles often become a sight obstruction and cause numerous crashes. Parking-protected bike lanes are designed to "daylight" an intersection, greatly improving safety for both walkers and drivers.

Bike riders see benefits from parking-protected bike lanes by having a physical barrier between themselves and moving vehicles. This bike lane type eliminates what is known as "dooring". "Dooring" is a type of crash that occurs when a driver-side door of a parked car is opened as a bike rider is passing on a traditional bike lane that is striped between driving lane and parking lane. Parking-protected bike lanes move the bike riders to the outside of the door zone, which eliminates the possibility of this type of crash occurring.

Passage of "Susan and Emily's law" will increase public safety for all that use our roads - drivers, pedestrians, and cyclists - by allowing engineers to use all tools that have been validated as proven safety countermeasures.

## **Conclusion**

Bike lanes have been and will continue to be built regardless of the passage of "Susan and Emily's law". The public benefits from our ability to design and construct these facilities in the safest and most efficient manner possible. In order to accomplish this to the best of our ability for the benefit of the public, we need the best tools we can have at our disposal.

Passage of "Susan and Emily's Law" will reduce red tape, improve cost efficiency, and increase public safety.

Thank you for your time and attention.