SEPTA Cycle-Transit Plan

A Strategic Approach

April 2015

SEPTA Cycle-Transit Plan

A Strategic Approach to Bike and Transit Integration

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Executive Summary

SEPTA's vision is to be the region's preferred choice for transportation. To achieve that vision SEPTA must continually adapt to the region's evolving mobility needs; finding new ways to support multimodal transportation in order to grow ridership.

For SEPTA, the benefit of better integration with the bicycle network is increased system capacity. At a time when SEPTA's ridership is near quarter-century highs and auto parking lots are approaching maximum utilization, encouraging cycle-transit use can serve as a relatively inexpensive strategy to grow and accommodate ridership. Proactive planning and implementation of this Cycle-Transit Plan will help to make cycle-transit use an attractive mobility alternative, another step in a positive direction towards SEPTA's vision of being the region's preferred choice for transportation.

Research consistently demonstrates that tight integration of bicycle and transit infrastructure and policies can expand the reach of the transit network, improve the connectivity of the bicycle network, and have the combined effect of reducing private automobile use and ownership. Reduced private automobile use and ownership, in turn, makes the region's overall transportation network more efficient and sustainable.

SEPTA must continually adapt to the region's evolving mobility needs; finding new ways to support multimodal transportation in order to grow ridership.

In Philadelphia, bicycle ridership has grown more than three-fold in 20 years. Based on demographic trends and the anticipated implementation of a comprehensive bike sharing program within the City in 2015, bicycling in Philadelphia and the surrounding region will continue to grow.

SEPTA's Cycle-Transit Plan documents the increasing demand for "cycle-transit" use in Southeastern Pennsylvania, explores policy and infrastructure implications for SEPTA as a transit service provider, and presents practical measures to better integrate the transit and bicycle networks.

Baseline and future actions are grouped into three categories:

- Bikes **to** Transit
- Bikes **at** Transit
- Bikes **on** Transit

Bikes **to** Transit:

Baseline – SEPTA has:

- Continued to cultivate institutional partnerships focused on improving non-motorized access to stations, particularly in congested travel corridors.
- Created new forums for information and data sharing that will allow for the development and use of web-based and mobile applications for multi-modal commuting.
- Leveraged station investments to encourage improvements to on-street and sidewalk bicycle and pedestrian connections to those stations.

Future Actions – SEPTA will:

- Partner with stakeholder organizations to integrate the region's transit infrastructure with Southeastern Pennsylvania's regional trail network, "The Circuit", through two key roles: as owner and maintainer of former rail right-of-ways repurposed for trail construction, and as transit operator providing convenient access to trailheads.
- Develop customer communications and outreach videos to demonstrate safe cycle-transit behaviors, including a safety video discussing avoidance of "bus-bike" conflicts and a how-to video for utilizing bicycle racks on all of SEPTA's buses.
- Partner on planning initiatives seeking to improve non-motorized access to stations in high-priority corridors, develop web applications showing trails and transit linkages, and develop mobile applications tracking cycle-transit usage.

Bikes **at** Transit:

Baseline – SEPTA has:

- Provided bicycle racks at most Regional Rail and some transit stations, either on station property or in partnership with municipalities.
- Begun to develop and implement sheltered bicycle parking with higher capacity racks protected from inclement weather.

Future Actions – SEPTA will:

- Develop context-sensitive bicycle infrastructure that considers the impact of location, design and orientation to maximize potential utilization.
- Implement additional sheltered parking where appropriate, especially where cycle-transit demand is high and auto parking is at a premium.
- Creatively use space at stations, recognizing that location of bicycle racks is often paramount on whether or not they are used to potential.
- Consider secure parking to induce demand, particularly as an integrated element of structured auto parking garages.
- Utilize high-density parking, including the use of double-stack racks where high demand and limited space warrants such an approach.
- Install educational signage and wayfinding to promote safe and effective use of bike infrastructure at stations.
- Integrate with Philadelphia Bike Share to ensure connectivity between the transit and Bike Share networks.

Bikes **on** Transit:

Baseline – SEPTA has:

- Equipped 100 percent of buses and trackless trolleys with bicycle racks able to hold up to two bicycles.
- Allowed bicycles on rail vehicles (except trolleys) during off-peak periods.
- Allowed folding bicycles on bus and rail vehicles at all times. A folded bicycle is considered the same as a piece of luggage.

Future Actions – SEPTA will:

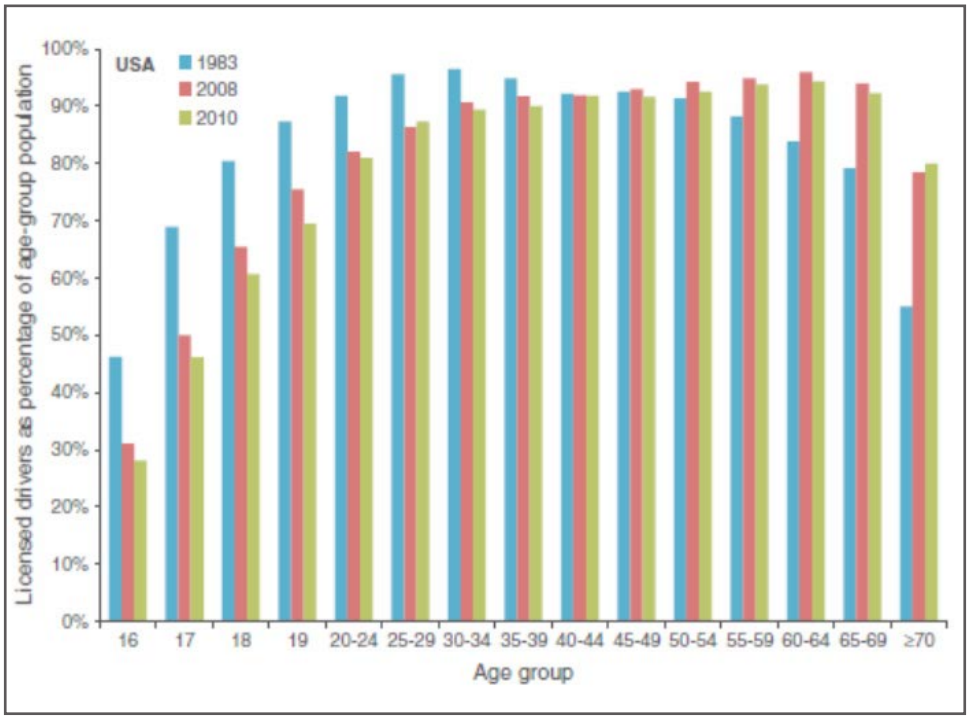
- Ease peak restrictions where possible and where capacity will allow for peak-period bikes on transit.
- Work with bicycle advocacy groups to offer Regional Rail excursion trips to fill excess capacity on weekends.
- Consider selling SEPTA-branded folding bicycles to popularize their use as an all-day form of uninhibited cycle-transit use.
- Pilot and evaluate staircase bike runners to facilitate station access at subway and elevated locations.
- Evaluate and reconfigure (i the interior seating arrangement of select rail vehicles to increase capacity, starting with a pilot reconfiguration of Market-Frankford Line vehicles.

INTRODUCTION - THE TREND LINE

SEPTA's ridership is nearing quarter century highs. In Southeastern Pennsylvania and across the United States, rates of both private auto ownership and use are down. The region's three fastest growing demographic groups – "Millennials" (20-34 years old) , "Baby Boomers" (60-75 years old), and an influx of newly-settled immigrants of all ages – are less likely to own a car (or even a driver's license) and are more likely to use transit. These emerging local demographic groups tend to not only rely on transit for commuting to work but also for other discretionary trips and often travel with luggage, strollers and bicycles.

By acknowledging these demographic trends and incorporating them into all aspects of planning, SEPTA will continue to serve its growing customer base with mobility options that meet increasingly diverse needs.

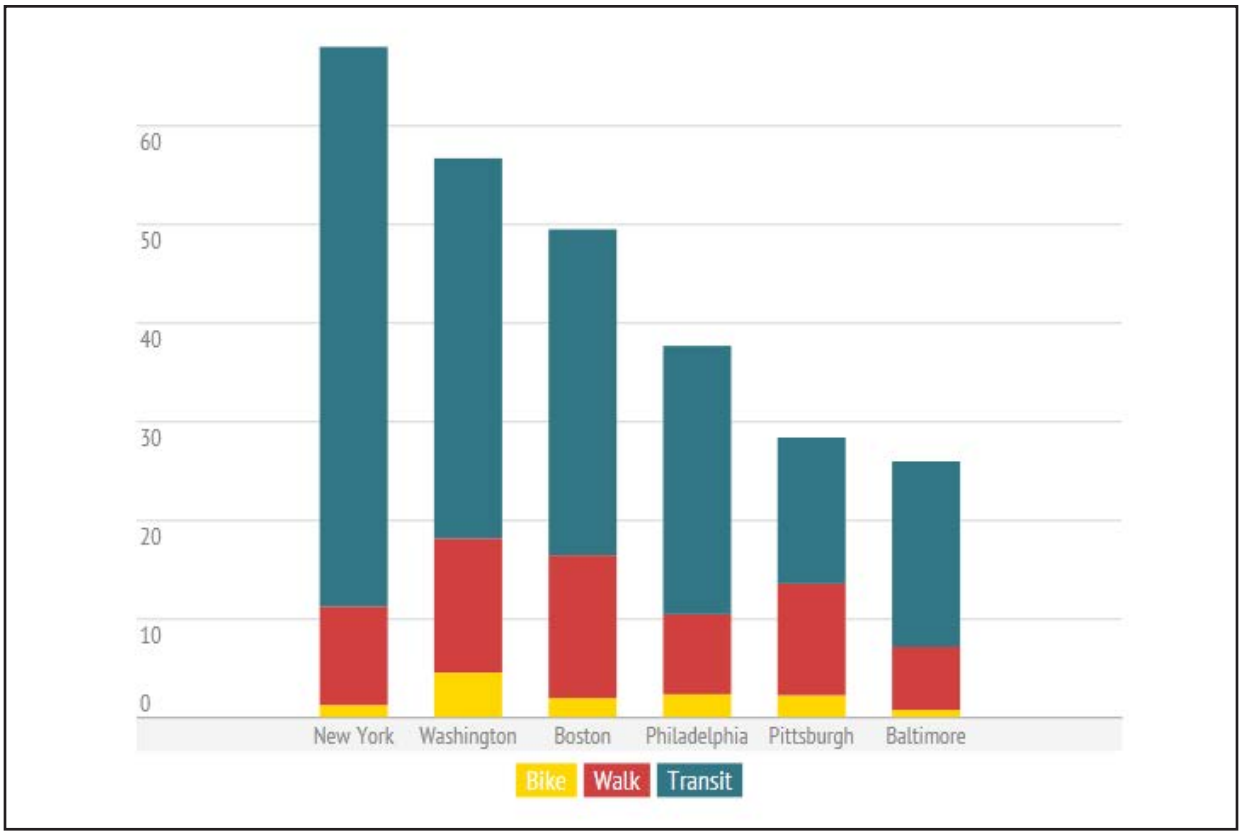
FIGURE 1: LICENSED DRIVERS AS A PERCENTAGE OF THEIR AGE-GROUP POPULATION



Source: University Of Michigan Transportation Research Institute.

One of the most significant trends impacting SEPTA's ability to serve its growing and diversifying customer base is the increase of bicycle use as a mainstream mode of transportation. According to the Alliance for Biking & Walking, more than 90 percent of people who use public transit walk or bike to reach transit stops. In Philadelphia, bike ridership has increased by more than 210 percent since 1990. More than 12,000 Philadelphians now bike to work each day. Combined with transit and walking, Philadelphia now has the fourth largest non-auto mode share in the Northeast (see Figure 2).

FIGURE 2: LARGEST NORTHEAST U.S. CITIES: NON-AUTO MODE SHARE



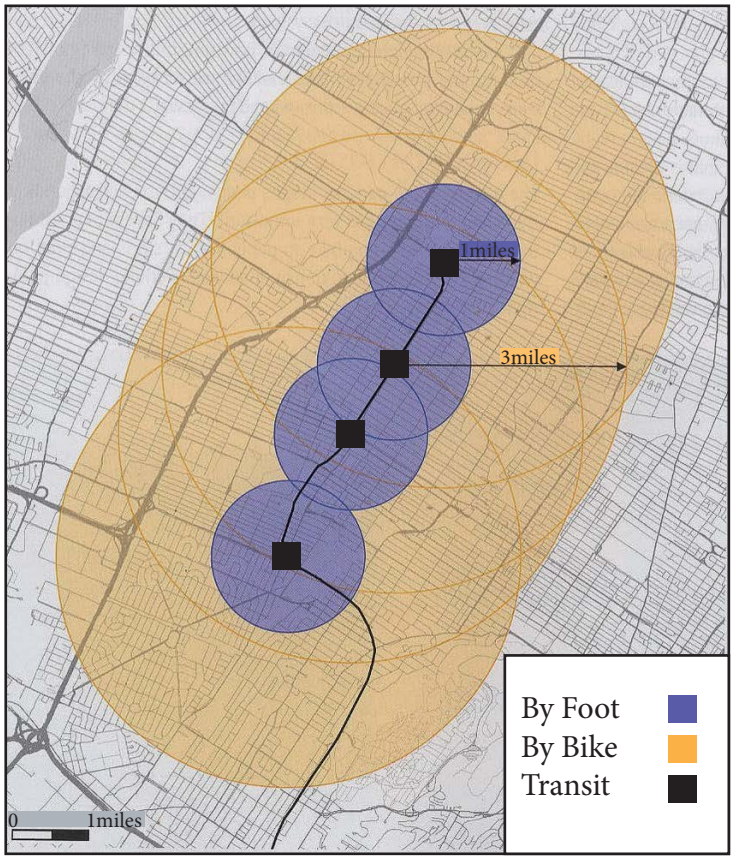
Source: University of Oklahoma

BIKES AS MAINSTREAM

The emergence of bicycling as a mainstream form of transportation is both an opportunity and challenge. It is an opportunity because bicyclists are less likely to own a car and therefore more likely to use transit for both work-related and discretionary trips. With proactive planning, bicycling can serve to make SEPTA's system and services more accessible to a larger number of people by increasing the rider catchment area for each station. Bicycle infrastructure is also less expensive to build than auto infrastructure, and improving facilities and policy for bicyclists can be a cost-effective way of increasing the overall capacity of each station area.

A report published in 2014 by the Mineta Transportation Institute entitled *Perceptions of Bicycle-Friendly Policy Impacts on Accessibility to Transit Services: The First and Last Mile Bridge* quantified this ridership market opportunity. Philadelphia "cycle transit users", or CTUs, that were polled in the study estimated that they travel 2.8 miles by bicycle as part of their multimodal trips. This "secondary catchment area" is much broader than the "primary catchment area" for pedestrian access, which is typically one-half to three-quarters of a mile. Philadelphia CTU respondents also indicated that if they could not easily combine bicycling and transit, approximately 15 percent would use another mode instead of transit.

FIGURE 3: WHAT IS THE TRANSIT CATCHMENT AREA?



Source: Adapted from Urban Places and Spaces Blog

On the other hand, rapid growth in cycle-transit use challenges SEPTA's already strained capacity. For example, riders demanding additional space on rail vehicles for large items such as bicycles could impact passenger flows, particularly during heavy ridership peak periods.

Bicycling emergence as a mainstream form of transportation can benefit SEPTA by accelerating Southeastern Pennsylvania's continued trend away from auto dependence and towards more sustainable, multi-modal travel patterns. However, improving and increasing capacity for multi-modal commuting will require thoughtful planning and consideration.

PLAN STRUCTURE

This Cycle-Transit Plan establishes a framework for proactive planning in three areas:

- Bikes **to** Transit
- Bikes **at** Transit
- Bikes **on** Transit

Working with partner agencies to improve bike access to transit, providing better bicycle infrastructure at stations, and re-thinking the policies for bicycles on SEPTA vehicles will help to ensure that multi-modal trips utilizing SEPTA's expansive system and services are as efficient and seamless as possible. The Cycle-Transit Plan provides a baseline assessment of SEPTA's bicycle infrastructure and policies, information and case studies about how other agencies manage their own bicycle infrastructure and policy, and key future actions for how SEPTA can improve bicycle infrastructure and policy in each of the three categories.

SECTION 1: BIKES TO TRANSIT

1.1. - Baseline

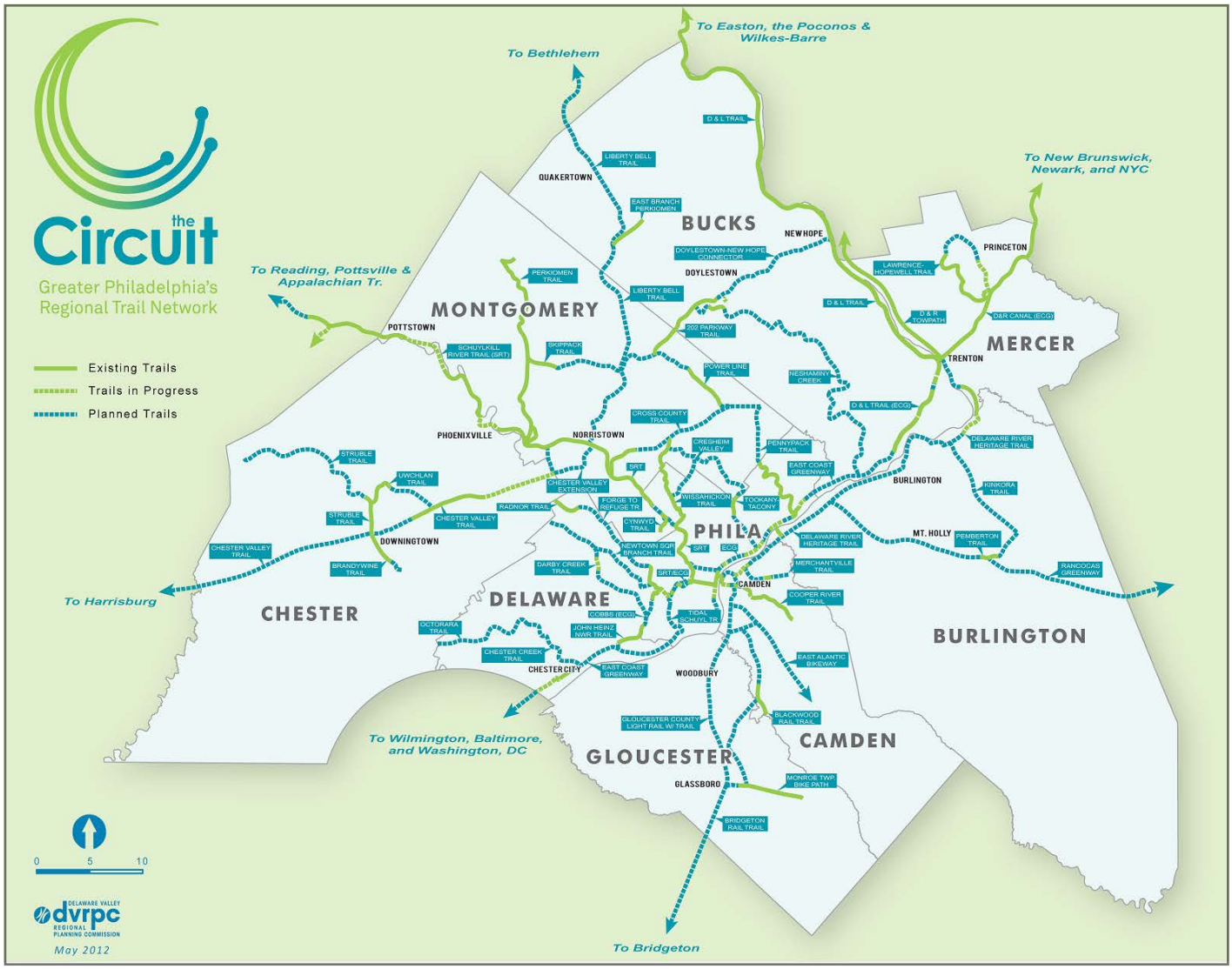
Connecting with the Circuit

Southeastern Pennsylvania has a variety of opportunities to create a connected network of multi-use trails, including shared right-of-ways (ROWs) and separated greenway corridors. While a significant number of trails exist in the region, a number of "gaps" need to be closed to create a truly interconnected trail network.

A collaboration of foundations, governments, non-profits, economic development agencies, and numerous other groups has formed to identify funding opportunities and undertake critical planning to fill these gaps and create an interconnected network of multi-use trails. The network is branded as "The Circuit". To date more than $22,000,000 was awarded from federal, state and foundation funding sources for planning, design, and construction of Circuit trails throughout Southeastern Pennsylvania and Southern New Jersey.

SEPTA has two roles to play in The Circuit's development: 1) as owner and maintainer of inactive rail right-of-ways that can be repurposed for trail construction, and 2) as transit operator providing bicyclists with convenient connections to and from trailheads across the region.

FIGURE 4: GREATER PHILADELPHIA'S EXISTING, PLANNED AND IN PROGRESS REGIONAL TRAIL NETWORK



The Manayunk area provides examples of both roles. The Manayunk Bridge, which once carried rail passengers from Montgomery County to 30th Street Station and Center City Philadelphia, has been inactive since the 1980s. SEPTA partnered with Lower Merion Township, the City of Philadelphia, and advocacy groups to coordinate the reactivation of this right-of-way as a key trail connection between the Cynwyd Heritage Trail, Schuylkill River Trail and the future Ivy Ridge Trail. Nearby, the still-active Manayunk/Norristown Regional Rail Line provides bicyclists with easy access to this signature regional asset.

FIGURE 5: AERIAL OF MANAYUNK BRIDGE TRAIL NETWORK

By participating in ongoing Circuit planning conversations, SEPTA can capitalize on proximity and connections to The Circuit.

Study of Non-Motorized Access to Stations on the Trenton Line

According to the Delaware Valley Regional Planning Commission (DVRPC) Trenton Line Access Study , "the ongoing reconstruction of I-95 will result in years of reduced highway capacity and a large number of new peak period transit riders for SEPTA's Trenton and West Trenton Regional Rail Lines". As part of a comprehensive traffic mitigation strategy, DVRPC is conducting a planning study that will identify investments in bicycle and pedestrian facilities that would improve non-motorized access to select Trenton Line Stations and complement limited parking capacity with a new way to access each station without the need to park a car.

The study focuses on five stations along the Trenton Line: Holmesburg Junction and Torresdale in Philadelphia; and Cornwells Heights, Croydon and Levittown in Bucks County. DVRPC chose to focus on these stations because they have the most potential to absorb new transit riders within the I-95 construction area. As noted in DVRPC's study, these five stations account for 4,022 (68%) of the 5,887 total inbound passengers using the train line between Trenton Transit Center and the North Philadelphia Station on a average weekday.

The Trenton Line Access Study includes practical recommendations that will improve non-motorized access to the five stations included in the study. An example of two proposed pedestrian and biking connections that could improve non-moterized access to Cornwells Heights Station can be found in Figure 6.

FIGURE 6: POTENTIAL FOR LEVERAGING TRAIL NETWORKS TO INCREASE NON-MOTORIZED TRAVEL TO STATIONS (CORNWELLS HEIGHTS AS AN EXAMPLE)

The study is a platform for coordination among agencies working to effectively mitigate congestion associated with the I-95 construction project. Continuing to coordinate planning efforts at an early stage will help SEPTA to instruct stakeholders on viable bicycle infrastructure for future station redesigns.

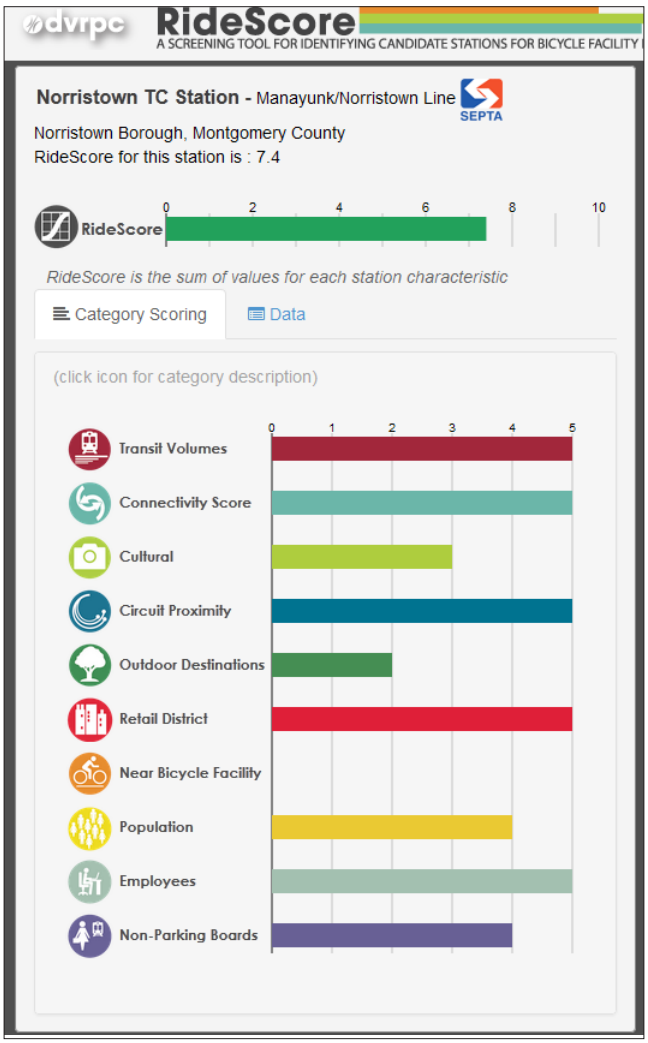
Collaborating on Development of RideScore Tool

In June 2014, DVRPC launched RideScore, an on-line database that assesses the physical and demographic characteristics around transit stations that relate to how supportive of bicycling the area is or could be. DVRPC staff collected data on various station area characteristics deemed to be important factors in calculating cycle-transit connectivity. The sum of those factors is calculated to give each station a total RideScore. Together, these individual factors (transit volumes, connectivity score, cultural, circuit proximity, outdoor destinations, retail district, near bicycle facility, population, employees and non-parking boards) contribute to a station's aggregate RideScore, which is intended to convey demand for cycle-transit usage – and implicitly, for improved bicycle infrastructure.

RideScore serves as a useful filter for prioritizing and coordinating bikes and transit planning efforts with partner agencies, and for helping to identify and prioritize stations for enhanced bicycle infrastructure. SEPTA used RideScore as part of a comprehensive analysis of Regional Rail Stations.

Norristown Transportation Center was awarded a total RideScore of 7.4, as seen in Figure 7. The total RideScore is based on the weighted average of the 10 factors listed in the Category Scoring Section. All SEPTA Regional Rail Stations have been awarded a RideSore.

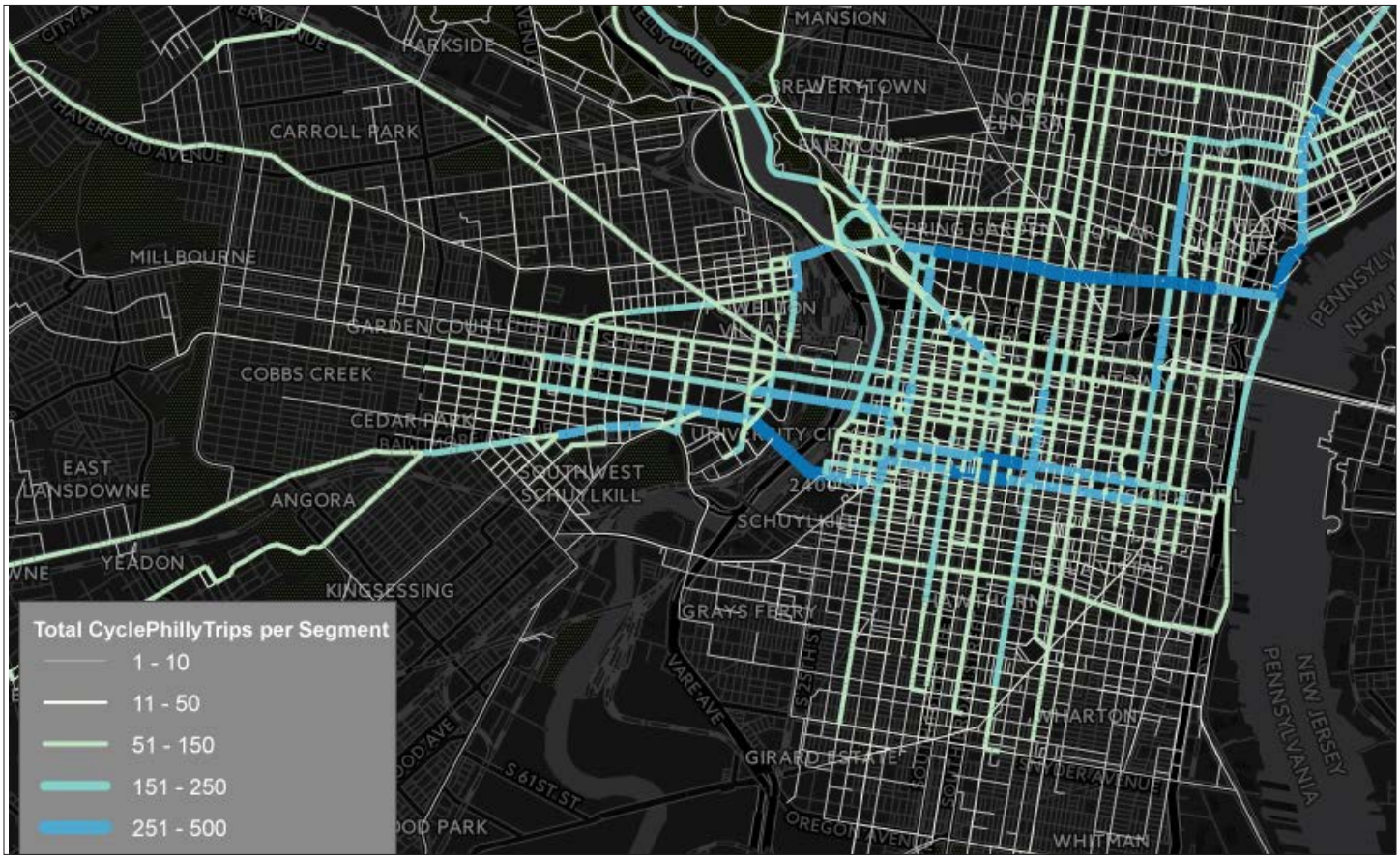
FIGURE 7: DVRPC RIDESCORE CATEGORIES



Collaboration on Development of CyclePhilly Mobile Application

In 2013, SEPTA participated in the development of a mobile application that would allow users to record their daily bicycle trips in the City of Philadelphia. The mobile app, launched in May 2014, recorded more than 8,300 trips in a six month period.

FIGURE 8: CYCLEPHILLY USER MAP: MAY THRU OCTOBER 2014



Source: DVRPC

The mobile app allows users to track bicycle routes around the City in real time. In addition to providing data to planners that will help in building better bicycle connections, the application will also provide SEPTA with information about how users integrate their bicycle trips with all modes of public transit. A user simply responds "Yes" to a prompt that they utilized public transit as part of their trip.

In addition to bicycle infrastructure improvements, this data will be valuable to route planners in an effort to minimize bicycle, bus and surface trolley conflicts. SEPTA has already begun to collaborate with partner agencies to locate bike lanes on the left side of shared streets to avoid bicycle and bus conflicts related to passengers embarking and disembarking from SEPTA vehicles. An example of this collaboration in action is Walnut Street in West Philadelphia.

Proactive Customer Communication and Outreach

In early spring 2014, SEPTA developed a series of educational and informational tools that promote safe cycle-transit use. Two videos were developed to fill a gap in customer safety and help facilitate a better overall-experience for SEPTA riders and staff. One video demonstrates how to safely share the road with buses and the other video illustrates how to deploy the bicycle racks on SEPTA buses. In May alone, the videos received over 400 unique views, among the highest traffic for videos on the SEPTA website. In addition to educational videos, SEPTA has also comprehensively updated its inventory of bicycle amenities on the interactive map of rail stations on the SEPTA website.

As an additional educational and outreach opportunity, SEPTA provided bus bicycle racks to the Clean Air Council and Temple University to use for demonstration purposes. Mobile units are available for use at community events where customers receive hands-on instruction on how to deploy the rack.

SEPTA also supports regional universities, colleges, high schools and community groups by participating in outreach events and lecturing in classrooms. In 2014 SEPTA participated in Drexel University's Earth Day festivities. Pictured in Figure 9 are SEPTA employees demonstrating the bus bike rack to Drexel students.

FIGURE 9: BUS BIKE RACK DEMO AT DREXEL UNIVERSITY'S EARTH DAY

Source: Drexel University

1.2. - Future Actions

Opportunities to improve bike access to transit include:

Growing Institutional Partnerships that Support Non-Motorized Access Alternatives to Stations

The multi-agency discussion focused on the development of non-motorized opportunities to stations located within the I-95 corridor and provided solutions that will increase access, increase ridership and reduce congestion. SEPTA would benefit from identifying other highly congested travel corridors and participating in conversations that focus on improving non-motorized access to transit stations to ease traffic and increase ridership.

Creating Forums for Information and Data Sharing

To promote better access to transit, the Clean Air Council developed a multi-modal route planner tool. The tool will be available as a mobile and web-based application, and will integrate bike route and transit schedule information in a first-of-its-kind resource to non-auto commuters in Philadelphia.

Leveraging Station Investments to Improve Street and Sidewalk Connections Directly Surrounding Stations

Currently, SEPTA develops station improvement plans with the goal to improve multi-modal connections for pedestrian, bicycle and bus access. Recently, SEPTA was able to take advantage of road improvements around Levittown Station in order to provide customers with better connections to nearby trails.

In the future, by engaging state, city and municipal agencies in conversations regarding station designs and emphasizing the need for better non-motorized connections, SEPTA can improve the customer experience even before the individual sets foot on a SEPTA station. Through this collaborative process, SEPTA will not only connect to existing facilities, but also foster new multimodal connections.

SECTION 2: BIKES AT TRANSIT

2.1. - Baseline

SEPTA provides bicycle racks at most Regional Rail Stations and some transit stations, either on station property or in partnership with municipalities, including the City of Philadelphia. Racks vary in design, but at a minimum, SEPTA provides infrastructure to lock two bicycles per rack. Specific information about the number of bicycle racks and how many bikes they accommodate is listed on the SEPTA website.

Currently, SEPTA has one covered bicycle station at Temple University Regional Rail station. Almost all of the Regional Rail Stations have “U racks”, “old long racks” or “wave style racks”. U racks are preferred by customers because they offer a way to easily lock the frame and both tires to the rack. Examples of these types of bicycle racks are provided in Figure 10.

FIGURE 10: SEPTA's BICYCLE RACKS

WAVE RACK

OLD LONG RACK

U RACK

2.2. - Future Actions

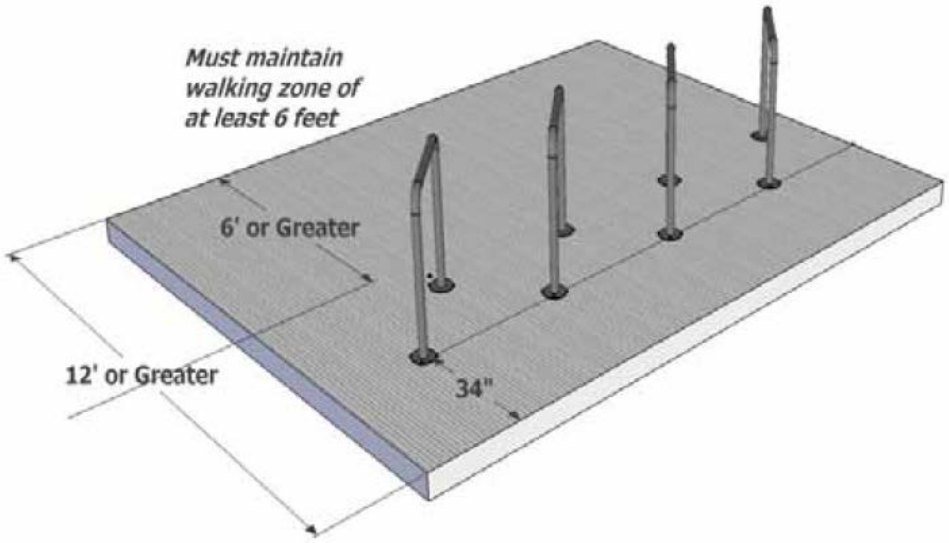
This plan proposes the following actions for improved bicycle infrastructure at transit stations:

Develop Context-Sensitive Bike Infrastructure Installation Guidelines

SEPTA currently provides bicycle racks at most Regional Rail stations, however because many of the racks were not part of the original station design, the location, design, and orientation often do not optimize utilization.

The development of guidelines for installation and orientation of bicycle racks would help to apply standards for the inclusion of bicycle infrastructure and ensure appropriate design considerations based on context-sensitive station profiles. SEPTA will develop an Installation Guideline similar to the City of Philadelphia's Installation Guidelines. An example of one of the City's installation guidelines can be seen in Figure 11.

FIGURE 11: CITY OF PHILADELPHIA'S INSTALLATION GUIDELINES



Sheltered Bike Parking Where Appropriate

SEPTA has installed asuccessful covered bicycle structure at Temple University Regional Rail Station, which is utilized to full capacity during the school year. As a result of this successful installation, plans to install more covered bicycle structures at stations are in development.

The Temple University structure is successful for several reasons:

1. The station has a clear demand for cycle-transit use.
2. The station was surveyed before the fabrication of the rack. This resulted in a rack that was designed specifically for Temple University Station.
3. The bicycle rack provides shelter from weather. Cyclists are guaranteed that their bikes will be covered and protected from the elements if locked to the rack located under the canopy.
4. The location of the rack is in an area that is perceived as being safe. The bicycle structure was installed in a high-traffic area that has high visibility by both SEPTA employees and our customers.
5. The rack is located at the entrance to the station, which enables customers to quickly and easily lock their bicycles and immediately access the platform.

The design of future sheltered bicycle parking installations will be based on similar considerations, using the Temple University installation as a model.

FIGURE 12: TEMPLE UNIVERSITY'S COVERED RACK

Source: SEPTA

Become More Creative with Space Constraints

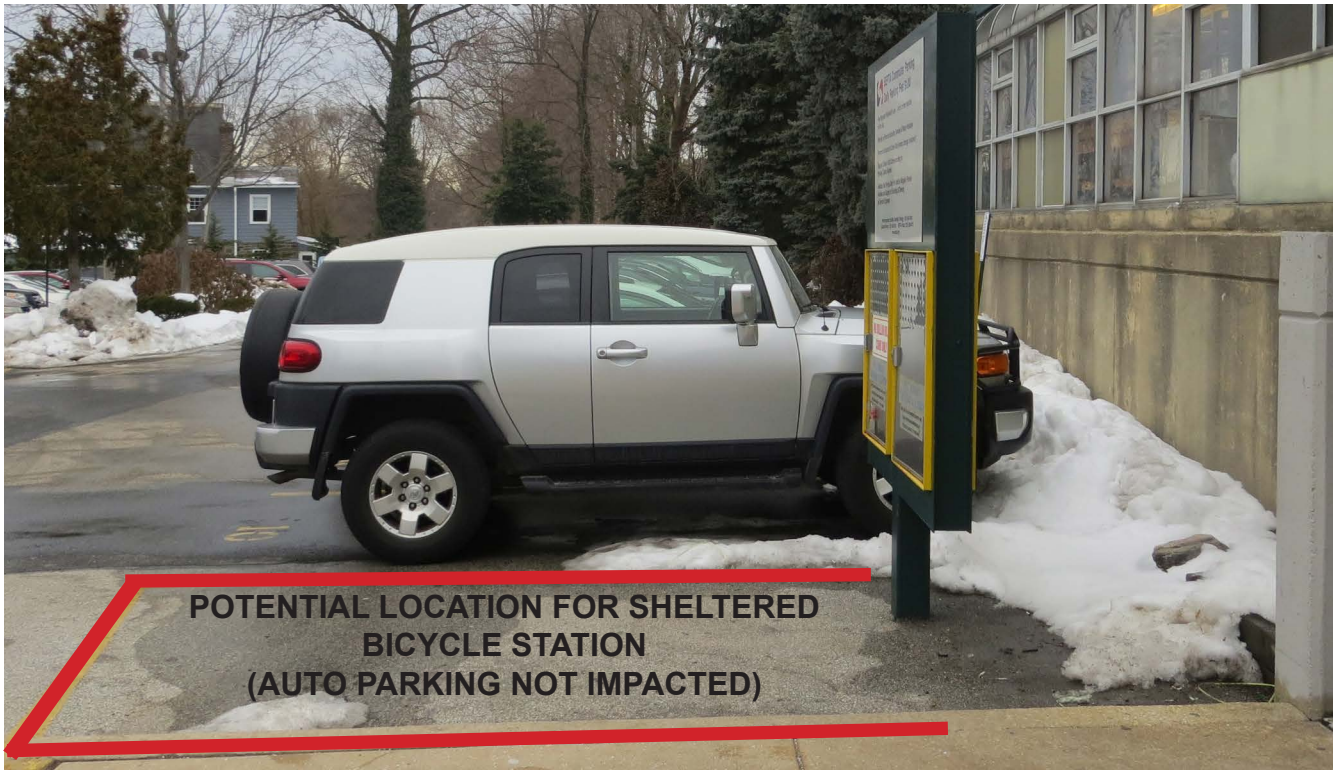
While sidewalks are often the most obvious and convenient place to add bicycle parking, these locations might not provide cyclists with a customer friendly option. Underutilized space on some platforms would provide both, as illustrated in Figure 13.

FIGURE 13: POTENTIAL RACK LOCATION AT HAVERFORD STATION

Source: SEPTA

When contemplating covered racks for Regional Rail Stations stations where auto parking is at a premium, a covered bicycle rack could be combined with the parking pay station. With the adoption of the SEPTA Key new payment system, SEPTA has the opportunity to re-evaluate how the current footprint of parking pay stations are utilized. One opportunity could be to coordinate installation of bicycle racks with new parking pay stations without impacting auto parking availability. An example of this potential creative use of space is shown in Figure 14.

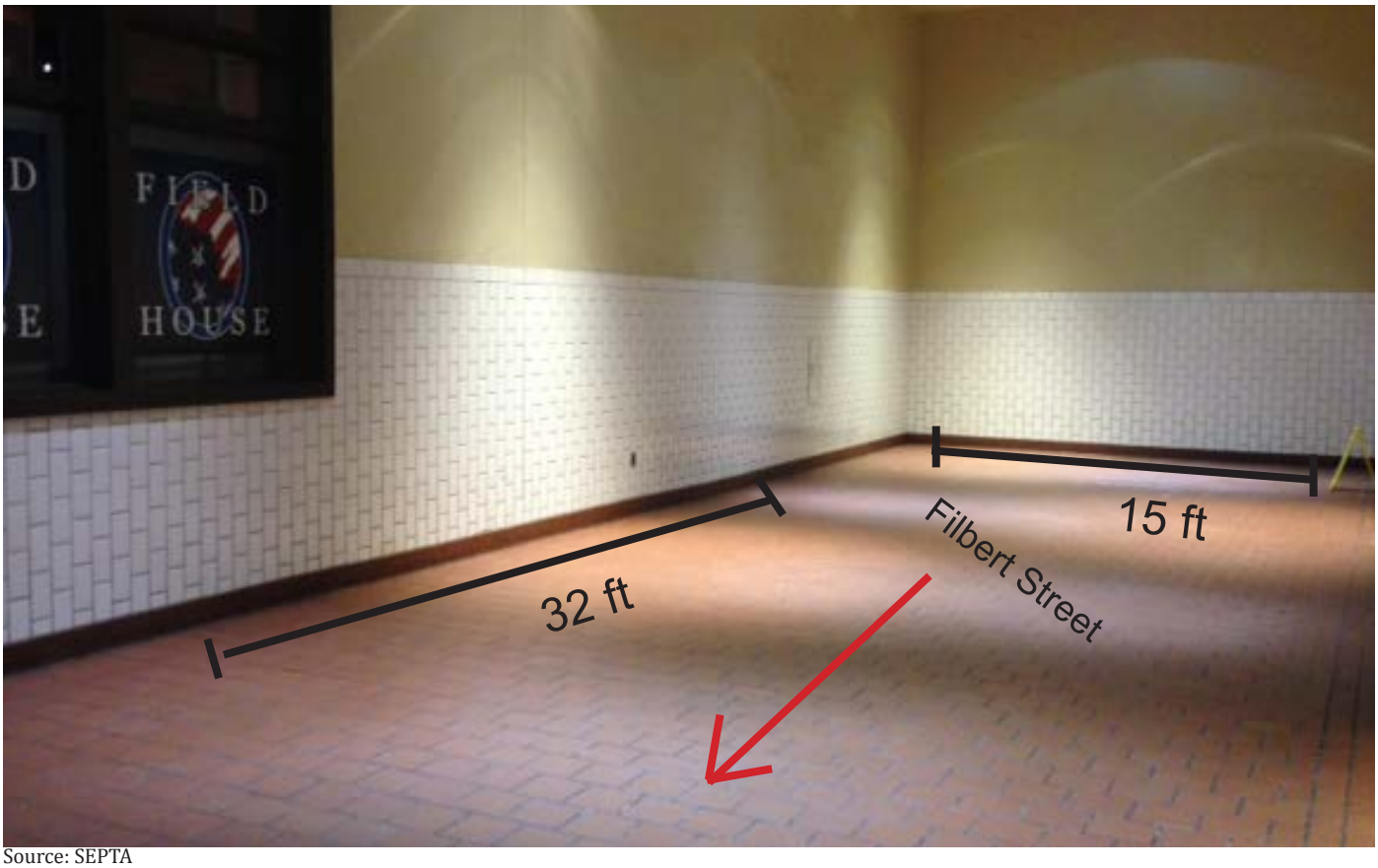
FIGURE 14: CREATIVE BICYCLE PARKING EXAMPLE



Source: SEPTA

Another bicycle parking location that SEPTA is investigating is at the Jefferson Station headhouse pictured in Figure 15. While SEPTA does not own that real estate, the owners of the property are willing to meet with SEPTA to discuss installing bicycle parking that could be utilized by the public.

FIGURE 15: POSSIBLE BIKE PARKING LOCATION AT JEFFERSON STATION HEADHOUSE, 12TH AND FILBERT



Source: SEPTA

Consider Secure Parking to Induce Demand

SEPTA can encourage customers to ride bicycles to stations by offering a safe and secure place for riders to leave their bicycles. For some customers, that means a covered rack in a convenient location. For others, it means providing a place to store and lock their bicycles.

Stations with especially high demand for bicycle parking, such as stations located near trail heads or densely populated neighborhoods, could be considered for secure bicycle parking. An example of secure bicycle parking takes the form of a secure Pedal & Park.

- Pedal & Park: MBTA in Boston offers secure bicycle parking in a cage-like structure shown in Figure 16. Entrance to the cage is granted by membership and bicycle parking is offered by the day, week, month or year. The Pedal & Park stations provide a high volume, safe and secure location for cycle transit users to leave their bicycles during the day.

FIGURE 16: PEDAL & PARK

Source: MBTA

Utilize High-Density Bike Parking to Conserve Space

In addition to covered structures, SEPTA could pilot high density, stacked bicycle parking located under existing station canopies. At Bay Area Rapid Transit (BART) in the San Francisco Bay Area, high density double stack racks have been added to both the interior non-pay areas and outside canopy areas.

FIGURE 17: DOUBLE STACKED BIKE RACKS

Source: BART

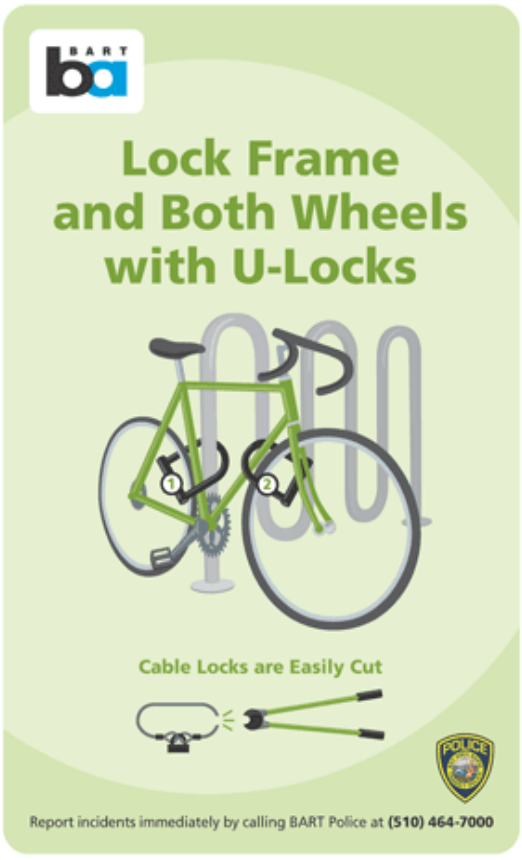
Install Educational Signage and Wayfinding

To promote the bicycle amenities that are added at stations, SEPTA has the opportunity to create wayfinding signs to highlight safe use of bicycle infrastructure. These wayfinding signs could coordinate with educational signs located near the bicycle racks. BART has installed educational signage near bicycle racks at stations to assist customers, as pictured in Figure 18.

Integrate with Philadelphia Bike Share

Bike Share is coming to Philadelphia. As part of the Mayor's Office of Transportation and Utilities (MOTU) phased installation approach, Phase 1 will install pods in Center City Philadelphia and the surrounding neighborhoods. SEPTA has collaborated with MOTU on opportunities for integrating Bike Share with transit to expand the reach of both networks. One such opportunity is to integrate Bike Share with SEPTA's new fare payment system, the SEPTA Key.

FIGURE 18: EDUCATIONAL SIGN



Source: BART

SECTION 3: BIKES ON TRANSIT

3.1. - Baseline

Buses and Trackless Trolleys: 100 Percent Have Bike Racks

The front of every SEPTA bus and trackless trolley is equipped with a bicycle rack, as pictured in Figure 19. Each rack can hold two bicycles.

FIGURE 19: SEPTA BUS BIKE RACK

Source: SEPTA

While the bike racks are a key bikes-on-transit asset, cyclists have expressed concern that a lack of awareness on how to operate the rack is a key barrier to its use. In response to this concern, SEPTA created a "How To" video to aid customers in operating the bicycle racks located on the front of SEPTA buses. SEPTA is also exploring the viability of installing permanent practice stations at high-traffic locations around the system.

A collaboration with a group of Product Design students from Drexel University has also been initiated to improve the design and function of the rack. Through interviews and tests the students discovered that the design of the rack functioned well, however the overall user experience could be improved by adding more description color coding to the racks.

Bikes On Board Subway/Elevated, Trolley and Regional Rail Vehicle Policies

Market-Frankford and Broad Street Subway Lines

- Traditional bicycles are permitted only during off-peak hours.
- SEPTA off-peak hours are weekdays before 6 a.m., between 9 a.m. and 3 p.m. and after 6 p.m.
- Bicycles are allowed any time on weekends and major holidays.
- Folding bicycles are allowed at all times as long as they are in the fully collapsed position.

Norristown High Speed Line

- Two bicycles are permitted per car and must be stored in the rear vestibule.
- Traditional bicycles are permitted only during off-peak hours.
- SEPTA off-peak hours are weekdays before 6 a.m., between 9 a.m. and 3 p.m. and after 6 p.m.
- Bicycles are allowed any time on weekends and major holidays.
- Folding bicycles are allowed at all times as long as they are in the fully collapsed position.

Regional Rail

- Two bicycles are permitted per car.
- On weekday trains except: morning inbound trains arriving at any Center City Station between 6:00 a.m. and 9:30 a.m. and afternoon outbound trains departing from Center City between 4:00 p.m. and 6:30 p.m.
- Bicycles are allowed any time on weekends and major holidays.
- Bicycles must be stored in areas designated as priority seating for persons with disabilities, which includes individuals with wheelchairs and senior citizens.
- If designated area is occupied by a priority seating passenger - or if a priority seating passenger boards after a bicycle is already onboard - then bicyclists will be directed to an unoccupied designated area or be asked to finish the trip on another vehicle.
- Folding bicycles are allowed at all times as long as they are in the fully collapsed position.

Trolleys

- Bicycles are not permitted on Route 10, 11, 13, 15, 34, 36, 101 and 102.
- Folding bicycles are allowed at all times as long as they are in the fully collapsed position.

3.2. - Future Actions

Vehicle Interior Reconfiguration, Where Necessary

SEPTA's passenger capacity on some service is constrained by interior seating configurations that impede efficient passenger flow, increase dwell time and reduce the usability of space for large parcels, strollers or bicycles. Improving bicycle access on these vehicles will require rethinking the space.

As part of this planning process, observations were conducted on the Market-Frankford Line (the most heavily used line in the SEPTA system) which has smaller rail vehicle dimensions and on which high demand for cycle-transit use is noted. During field observations, examples of how customer behaviors affect capacity and customer flow were observed.

- Customers blocking the doorways and experiencing limited mobility with strollers and luggage with in the seating area.
- Customers with strollers and luggage during both peak and off-peak hours are forced to block doorways due to limited mobility within seating areas.

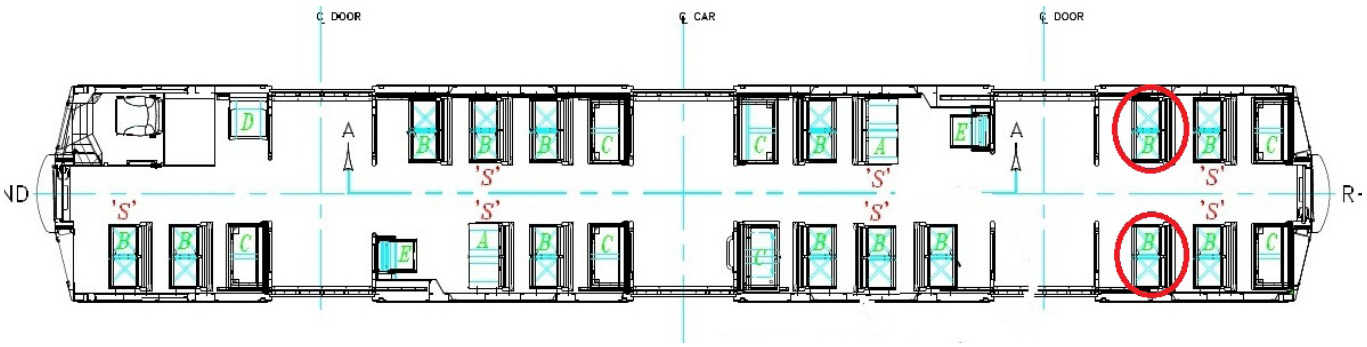
FIGURE 20: OBSERVED PASSENGER BEHAVIOR ON M-4 CARS – WIND SCREEN LEANING & PASSENGERS TRAVELING WITH STROLLERS

Source: SEPTA

Bicycle restrictions can only be eased during peak times if there is a solution to capacity and customer flow issues.

In early 2015, SEPTA began a pilot project that removed bench seats on six cars on the Market-Frankford Line. During the pilot project, the modified cars will be evaluated on whether the removal of the seats affected passenger behavior, and specifically whether it had any effect on passenger flow and overall station dwell time. Observations will determine whether the space created by the removal of bench seats, circled in red in Figure 21, is utilized by customers traveling with large parcels, strollers and bicycles. Based on the results of this pilot project, SEPTA will further determine if fleet-wide changes are appropriate.

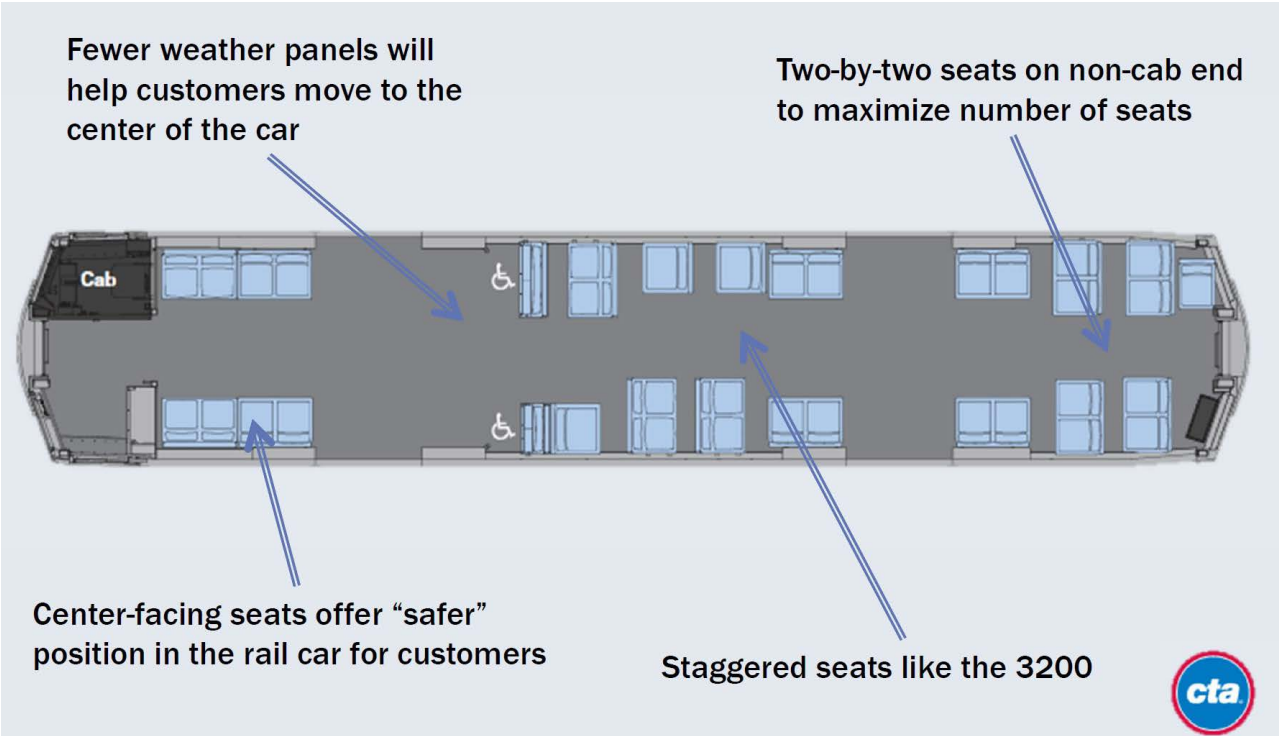
FIGURE 21: MARKET-FRANKFORD RAIL CAR PILOT RECONFIGURATION



Source: SEPTA

Peer agencies that encounter similar capacity challenges have responded by removing wind screens as well as seats to accommodate passengers traveling with large parcels, strollers and bicycles. Figure 22 shows one example of a modified CTA heavy rail car.

FIGURE 22: PEER AGENCY RESPONSE TO CAPACITY CONSTRAINTS



Source: Chicago Transit Authority

Easing Peak Restrictions, Where Possible

At the 2013 Philadelphia Bike Expo, SEPTA conducted a survey requesting feedback on potential modifications to SEPTA's bike policy and infrastructure. Of the 213 respondents surveyed, 167 (78%) indicated a desire for eased restrictions on peak period cycle-transit access onboard SEPTA Regional Rail, the Market-Frankford Line and Broad Street Line.

Two of the nation's largest and similarly capacity constrained transit agencies have already lifted peak restrictions. The MTA in New York City has eliminated peak period restrictions and instructed passengers to use "courtesy" and "common sense" when taking bikes on board subway trains. BART in San Francisco also eliminated all peak period bicycle restrictions.

To date the decisions of MTA and BART to eliminate peak bicycle restrictions have had a net positive effect on the customer experience. For example, BART discovered through a customer survey that 25 percent of respondents were much more likely or somewhat more likely to ride BART if peak restrictions for bicycles were eliminated. This is compared to the 11 percent of respondents who said they would be much less likely or somewhat less likely to ride BART if peak restrictions for bicycles were lifted.

The reconfiguration pilot of the Market-Frankford vehicles will in part determine the viability of easing peak restrictions on the Market-Frankford and Broad Street Lines. Easing peak restriction on Regional Rail remains a challenge for SEPTA, as reconfiguration of seats to provide space for bicycles is not possible with the current fleet. As SEPTA ridership continues to grow, finding space within rail vehicles to accommodate peak period travel with bicycles will remain a challenge.

Hosting Regional Rail Excursion Trips

Current SEPTA policy permits up to two bicycles on each Regional Rail car in passenger service during off-peak hours. This policy is in place due to limited space inside railcars for bicycles on SEPTA's Silverliner IV and push-pull vehicles.

Agencies who do not have dedicated space for bicycles and cannot alter railcar interiors have partnered with local municipalities, neighborhood associations or Business Improvement Districts to organize special cycle-transit events. In Los Angeles, LA Metro partnered with the Culver City neighborhood association to promote how transit and bicycles could be used to connect their neighborhood with Downtown Los Angeles. SEPTA is investigating community partnerships to co-organize similar bicycle events.

FIGURE 23: BIKE TO TRAIN FIELD TRIP

Source: METRO

Branding Folding Bicycles

MTA in New York City has teamed up with a bicycle manufacture to produce an MTA branded "MetroBike". Folding bicycles were traditionally considered a specialty bike with a very high price tag. However, MTA has been able to offer a more affordable bicycle that may be carried onto a train or bus. Like SEPTA, MTA allows fully collapsed folding bicycles onto all modes, regardless of the time of day.

FIGURE 24: BRANDED FOLDING BICYCLE

Source: MTA

Source: Fit For Bike Blog

Installing Bicycle Runners

Bicycle runners are an architectural feature added to stairs that allow cyclists to ascend and descend with a bicycle. The runners allow the cyclist to place the bicycle tires on a ramp located directly under the handrail, and roll the bicycle easily and safely up or down the staircase. SEPTA will pilot and evaluate bicycle runners at subway and elevated stations where demand for bicycles on transit exists and staircase egress capacity allows for installation.

FIGURE 25: EXAMPLE OF A BICYCLE RUNNER

Source: Metropolitan Transportation Commission

SECTION 4: CONCLUSION

SEPTA will continue to serve its diversified customer base by acknowledging trends of decreased dependency on cars, increased bicycle use and adapting to the needs of the growing bicycle-using population. This report represents a framework for cost-effective investments to cultivate this growing potential ridership market. By rethinking policy and redesigning current assets to meet the needs of customers, SEPTA will increase capacity, efficiency and improve the customer experience.

SEPTA recognizes that a sustainable, multi-model transportation future for southeastern Pennsylvania is a shared objective across sectors. SEPTA will continue to seek partnerships with private institutions, public organizations and municipalities in order to facilitate better bicycle connections and infrastructure while sharing in the cost of those improvements. By working with partners to implement this plan and better integrate bikes and transit, SEPTA will be taking an important step towards realizing its vision to be the region's preferred choice for transportation.