

# WHICH WAY NOW?

INVESTING in our **ROADS, RAILS, & REGION**

# STATE OF THE SYSTEM

The Current and Future Condition of Our Transportation Infrastructure



Our transportation network is essential to life in Greater Philadelphia. It provides mobility and accessibility to points and attractions throughout the entire region, helping us get to work, enjoy time with our families, access vital services, and so much more. The challenge is that our transportation network is aging and there is a growing backlog of vital projects that are essential to our region's continued progress.

Over the past few years, DVRPC and its state planning partners at PennDOT and NJ DOT, along with regional transit providers at SEPTA, PATCO, and NJ TRANSIT have been working together to better understand and prioritize projects that will have maximum impact on our region's mobility while making the most effective use of limited dollars.

## The need for repair

Just like your car or major appliances, roads, bridges, and transit infrastructure all have an expected useful lifespan. Much of our transportation infrastructure is nearing the end of its lifespan and needs to be rebuilt. With transportation infrastructure especially, it's often more expensive to repair and replace existing facilities than it was to build them in the first place. Why? Materials cost more and modern design standards are higher — often for safety reasons — and replacement facilities need to be brought into compliance.



In 2008, a two-mile stretch of I-95 was shut down for three days to make emergency repairs on a cracked support structure. This required 190,000 drivers to find an alternative route.

## Rebuilding Bridges



1,256 bridges will need to be replaced by 2040. Over the 27-year horizon outlined in the Connections 2040 Plan, Greater Philadelphia will need to replace 787 state-maintained bridges and 469 locally-maintained bridges<sup>1</sup>.

Bridges that aren't reconstructed in a timely manner could face weight limits or be closed to traffic. This could cause lengthy detours that could add to your commute, and slow the movement and increase the cost of goods and services.



In Pennsylvania, there are a number of large bridges that are due for replacement before 2040. This includes six significant bridges on I-95 and I-76 that could cumulatively cost almost \$5 billion to reconstruct.

<sup>1</sup>Overall, local bridges are in worse condition than state-maintained facilities. This estimate assumes that the region continues to fund bridge maintenance and preservation projects to the extent that available funding allows, which will extend the life of numerous bridges that otherwise may need to be replaced in the near future.



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## Repairing Roads



**24,000**  
lane miles need  
to be repaved

24,000 lane miles will need to be repaved and 3,500 miles will need to be reconstructed by 2040.

Pavement in poor condition slows traffic, contributes to accidents, and increases vehicle operating and repair costs. This isn't good news when you consider nearly 27,500 miles of Greater Philadelphia's roadways need to be resurfaced or reconstructed to be in a state of good repair.

Although our region is already allocating 72% of total funding to road and bridge repairs and maintenance, there simply isn't enough funding to meet our extensive and growing needs.

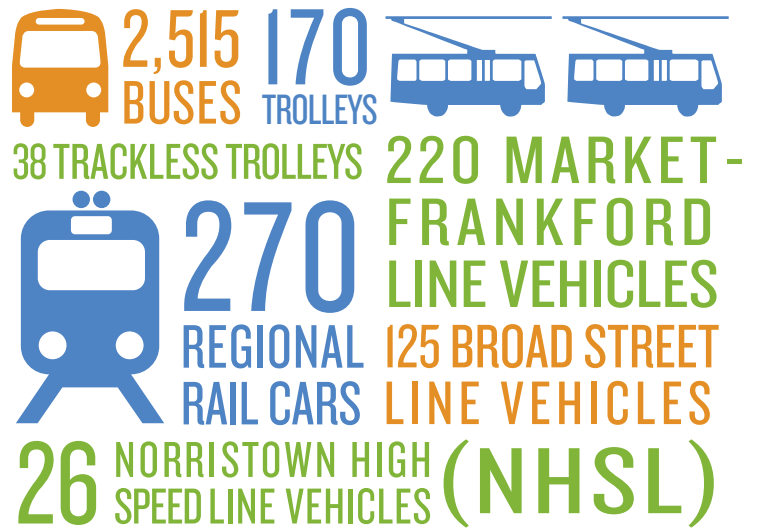
For us to advance, we must dedicate an even greater percentage of available funds to meet our road and bridge repair needs. DVRPC is working with state DOTs to ensure that the most critical investments are prioritized based on asset condition and use, and that new technologies and efficiencies are incorporated in the design.

## Transforming Transit

Three major transit operators serve Greater Philadelphia, and they're all focused on preserving their existing transit networks while improving safety and mobility.

SEPTA has the biggest struggles, based on the age of the facilities and expansiveness of its network. Created from several private transit operators, it inherited an aging infrastructure in poorly maintained condition.

Moving toward 2040, SEPTA will need to replace:



SEPTA is striving to squeeze additional years of service out of its vehicles. However, with technological improvements, future vehicles will be cleaner and more fuel efficient, so replacement reduces operating costs, improves reliability, and enhances passenger comfort. New vehicles are also ADA compliant and quicker for boarding, which speeds up transit operation. The recent delivery of the Silverliner V rail cars has increased SEPTA's regional rail on-time performance by over 5 percent.

Bridges, rails, and electrical infrastructure are also essential to SEPTA's transit system. Failure to maintain them properly can lead to speed restrictions, service disruptions, and ultimately, closures.

# SEPTA HAS MORE THAN \$5 BILLION IN IDENTIFIED PROJECTS THAT ARE UNABLE TO MOVE FORWARD.

**WHICH WAY NOW?** Investing in our roads, rails, and region. Data collected and provided by the Delaware Valley Regional Planning Commission (DVRPC) as part of Connections 2040, a long-range plan guiding the future growth and development of Greater Philadelphia.

Get the facts at: [www.dvrpc.org/WhichWayNow](http://www.dvrpc.org/WhichWayNow) | Learn more about the Long-Range Plan at: [www.dvrpc.org/Connections2040](http://www.dvrpc.org/Connections2040)

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SEPTA has 99 bridges that are over 100 years old. Most of its rail is nearing the end of its useful 50-year lifespan. And 10 power substations date back to the 1930s. Replacement parts for 80-year old equipment are hard, if not impossible, to come by. Major stations, like City Hall, have not undergone a major renovation since opening in the 1920s.



## NJ TRANSIT and PATCO also have significant infrastructure maintenance needs.

NJ TRANSIT's needs include rebuilding 4 stations on the Atlantic City Rail Line, replacing the 20 rail cars and 6 locomotives that use the line, replacing vehicles on the Trenton to New York City Corridor, and purchasing 371 buses. PATCO also has a number of projects including rehabilitating 121 rail vehicles, rehabilitating subway tunnels and viaducts, and replacing 10 substations.



## Norristown High Speed Line Viaduct

Spanning the Schuylkill River, the Norristown High Speed Line Viaduct is just one of the many essential bridges that needs attention. If the bridge can be rehabilitated in the next five to ten years, at a cost of approximately \$35 million, it will have another 25-30 years of useful life. On the other hand, it could cost \$300 million to replace. Despite its 100-year lifespan, a new bridge's cost per useful year is double that of repairs.

A PATCO rail vehicle undergoing reconstruction. Seventy-five of PATCO's 121 vehicles date from the opening of the line in 1969. Each car will be fully rebuilt to modern standards, while revising the metal shell.



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## How would you prioritize our transportation projects?

We all have a say in how we keep our region moving forward. Help shape the future of Greater Philadelphia through DVRPC's Choices & Voices web game.

This interactive web application allows you to decide how we should plan for future development, create a budget, and make transportation investments. You'll see how the choices we make will impact our region's landscape, transportation systems, environment, and even economic opportunities.

You can even see how your vision for the future of our region compares with others.

**MAKE YOUR CHOICE. USE YOUR VOICE.  
PLAN THE FUTURE OF GREATER PHILADELPHIA.  
WWW.DVRPC.ORG/CHOICESANDVOICES.**

	Your Scenario:	Average User Scenario:	Compare to Today:
<p><b>Acres Developed</b> <i>Most new growth in Greater Philadelphia has occurred in or near existing towns and cities throughout the region. New development in these places has capitalized on existing infrastructure, revitalized communities, encouraged alternative transportation options, and preserved open space throughout the region.</i></p>	<b>3%</b> 814,000	<b>2%</b> 807,751	790,600
<p><b>Vehicle Miles Driven</b> <i>Vehicle miles traveled (VMT) have remained fairly constant in your scenario, but population and job increases mean that total VMT in the region has increased. Without making operating improvements, building costly new transportation facilities, or establishing congestion pricing on roads, it will become more difficult to keep congestion at manageable levels.</i></p>	<b>3%</b> 7,570	<b>-3%</b> 7,170	7,370
<p><b>Biking &amp; Walking Trips</b> <i>Biking and walking have become easier because most new development has occurred in areas where walking is pleasant, and homes, stores, restaurants, schools, parks, and jobs are located in close proximity to one another. Incorporating more physical activity into our transportation system will also improve health.</i></p>	<b>6%</b> 90	<b>9%</b> 93	85

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