

Reliable funding for Pennsylvania's transportation system.



Because of the eroding value of gas tax revenue and unreliable federal funding, we're looking for alternative sources of funding to take care of Pennsylvania's transportation system.

We have a serious problem, right now

Despite rising traffic and freight travel in our state, the funds available to maintain our transportation system have not kept pace with our needs due to the eroding value of gas tax and uncertainty in future funding. Our investment needs are outgrowing our current funding, and this gap gets worse every year. That's why we've launched a new program – PennDOT Pathways. Through this program, we are analyzing new future-focused sources of funding for our transportation system that could better serve our communities and all Pennsylvanians for the next generation.

In the current phase of the Pathways program, we are focusing on our highway and bridge funding needs. Many of Pennsylvania's highways and bridges are in need of replacement or rehabilitation. We own, operate and maintain 25,400 bridges across the state. Of those bridges, more than 2,500 have been rated in poor condition. The average bridge age is 50 years, and with a typical life span of approximately 75 years, this need is not going away anytime soon. Repairs are critical to maintain safety, and making these repairs on our interstate bridges has required diverting funds from regional projects.





Bridge & Highway Funding

74%
Gas Taxes*

*Includes Federal and State Gas Taxes

17%
Vehicle Fees

9%
General Fund

Risk factors:

Fuel-efficient vehicles & Eroding revenue from gas tax

Unpredictable travel patterns due to COVID-19

Unreliable federal funding

Consider how much you pay annually for basic services



\$642
TV



\$720
Internet



\$876
Cell Phone



\$670
Electricity



\$380
Gas Tax

We are heading to zero gas tax revenue

The auto industry has committed **\$225B** to electric vehicles

Chrysler: 12 models by 2022

Ford: 40 models by 2022

Volkswagen: 50 percent of models by 2030

Volvo: All models by 2030

GM: All models by 2035

Honda: All models by 2040

BMW: 15-25 percent of sales by 2025

Toyota: 50 percent of sales by 2025



\$6.9B

Highway and Bridge Budget

About PennDOT's 25,400 bridges

2,500+ in poor condition

#2 PA's rank for number of bridges in poor condition

\$15B

Highway and Bridge Needs



\$8.1B shortfall

Limited funds results in lost time and money for Pennsylvania travelers and freight operators

Basic Needs

Critical Maintenance

Basic needs of our highways and bridges must be covered first to maintain safety and meet federal requirements.

Pavement Repairs

Fixing rough roads



Traffic

Reducing traffic congestion



Reliability

Keeping Bridges and Highways Open



Impacts of Budget Shortfall

Impacts to PA



Delayed maintenance

Delayed maintenance leads to expensive fixes later, and a risk of closures and detours.

Lost time²

\$5.8 B in lost time and fuel costs

Bridge closure³

One bridge closure can cost Pennsylvania drivers approximately \$70K per day

Impacts to the Traveling Public



More fuel & maintenance costs¹

\$550 per commuter lost

Lost time, wasted fuel²

\$1,100 in lost time and fuel costs per commuter

Unpredictable detours³

\$10 of fuel and vehicle costs per detour

Impacts to Freight Mobility



Weight Restrictions

NHS bridges may need to be posted with weight restrictions requiring detours that increase truck travel time and costs.

Truck Bottlenecks

Pennsylvania has six of the top 100 "truck bottlenecks" in the United States – raising costs of goods and services.

Additional Costs⁴

Costs truck drivers an additional 14.2 million hours per year.

The budget shortfall impacts everyone - individuals like you, businesses across Pennsylvania and the goods and services on which we rely.

These reduced funds, combined with federal performance requirements, mean we've had to shift funding from other regional projects to maintain safety, overall pavement and bridge conditions on the Interstates.

1: Based on the difference in vehicle maintenance costs for commuter driving an average distance of 30 miles per day to work (roundtrip) on smooth versus on poor quality pavement.

2: Based on congestion in PA urban areas, and monetized using national value of time rates, and average state fuel prices.

3: Calculated based on average detour length of 9.8 miles, average speed of 55 mph, and AADT for PA bridges.

4: Texas A&M Transportation Institute in the 2019 Urban Mobility Report.

Potential Funding Solutions

Bridge Tolling



Tolling is a proven way to fund costly infrastructure projects like bridges. In the United States there are 137 bridge tolls, including three in our backyard over the Delaware river. In fact, the Delaware River Joint Toll Bridge Commission temporarily converted the Scudder Falls Bridge over the Delaware River into a toll bridge only in 2019 in order to fund its replacement.

Managed Lanes



Managed Lanes are additional lanes on a highway where the traffic is managed for faster travel. With managed lanes, traffic can be regulated by charging a toll, or by encouraging carpooling. It offers a choice to drivers — to pay a fee, carpool, or use the regular lanes.

Congestion Pricing



Congestion pricing is another form of tolling where toll rates vary based on the congestion on the roadway — encouraging users to carpool or use alternative routes when traffic gets too heavy — creating a reliable speed and trip.

Corridor Tolling



Corridor tolling is similar to what we currently have on the Pennsylvania Turnpike. Corridor tolling means tolling interstates and expressways based on the distance traveled along that road.

Mileage-Based User Fees



These charges are a little different from tolls in that they are generally tied to GPS technologies to calculate the number of miles you drive. Essentially, drivers would be charged a small fee for each mile they drive during the year.

Fee & Tax Increases



This would include increasing vehicle-related fees and/or increasing various taxes, with the exception of the gas tax.

Some of these potential funding strategies might work better in certain scenarios and locations than others. It's important that as we study funding options, we consider how different strategies could work together as both near- and long-term solutions.

What Have We Done So Far?



We've worked hard to make the most of our available funding and have found some ways to secure additional funding. For example, with the help of Act 44 and Act 89, we were able to generate revenue from the Pennsylvania Turnpike and gas taxes, allowing us to complete nearly 4,000 projects worth more than \$10 billion since its passage in 2013. We have more than 500 projects underway worth more than \$4.5 billion, and roughly 1,700 projects on our four or 12-year plans. While Act 89 was a significant achievement, it did not meet the needs identified at the time and those needs have grown over time.

See active and planned construction projects at www.projects.penndot.gov.

PennDOT Pathways – Planning and Environmental Linkages (PEL) Study

Now that we have identified some of the potential funding options, how do we figure out what works best for Pennsylvania?

The PennDOT Pathways Program began with a Planning and Environmental Linkages, or PEL, Study, which was released for public comment in Spring of 2021. The PEL study evaluated potential funding options and analyzed which options likely work best for various situations, as well as which options would provide the best near- and long-term solutions.

The PEL Study is broken down into the following sections which cover:

- 1 Background about the transportation funding gap
- 2 Discussion of alternative funding options and which might be candidates for near-term versus long-term solutions
- 3 Identification of methodology for addressing environmental effects of the solutions including effects on low-income and minority populations
- 4 Public and agency outreach conducted as part of the PEL study

What questions do we ask when analyzing a potential funding solution?

- Q What are the benefits of this funding solution?
- Q Are there any negative impacts of this funding solution?
- Q What are the effects of this funding solution on low-income and minority populations?
- Q Does the funding solution consider our infrastructure requirements?

When assessing long-term solutions, we also ask:

- Q What approvals or authorizations will the funding solution require?
- Q How long will it take to put the funding solution into practice?

Learn more at: penndot.gov/about-us/funding/Pages/PEL-VPM.aspx



The Major Bridge P3 Initiative



The Major Bridge P3 Initiative is the first alternative funding initiative of the PennDOT Pathways program, a program to secure sustainable funding for our transportation system. The Major Bridge P3 Initiative is designed to raise revenue through tolling to address the state's growing backlog of major bridge replacement and rehabilitation needs. These bridges would use a Public-Private Partnership (P3) contracting and delivery method.

Through the P3 model, PennDOT can leverage private investment to rebuild critical bridges during a period with historically low interest rates and a labor market in which people are looking for work. This initiative can provide a dedicated source of revenue for these infrastructure improvements and could create significant savings over the life of the program while ensuring the vitality of the state's transportation system and economy.

Bridge tolling can provide the funds to replace or rehabilitate these costly bridges without using PennDOT's current funding, which in turn allows those funds to be used for other roadway maintenance, operations and improvements. Tolling would be all electronic and collected by using E-ZPass or license plate billing. The funds received from the toll would go back to the bridge where the toll is collected to pay for the construction, maintenance and operation of that bridge.

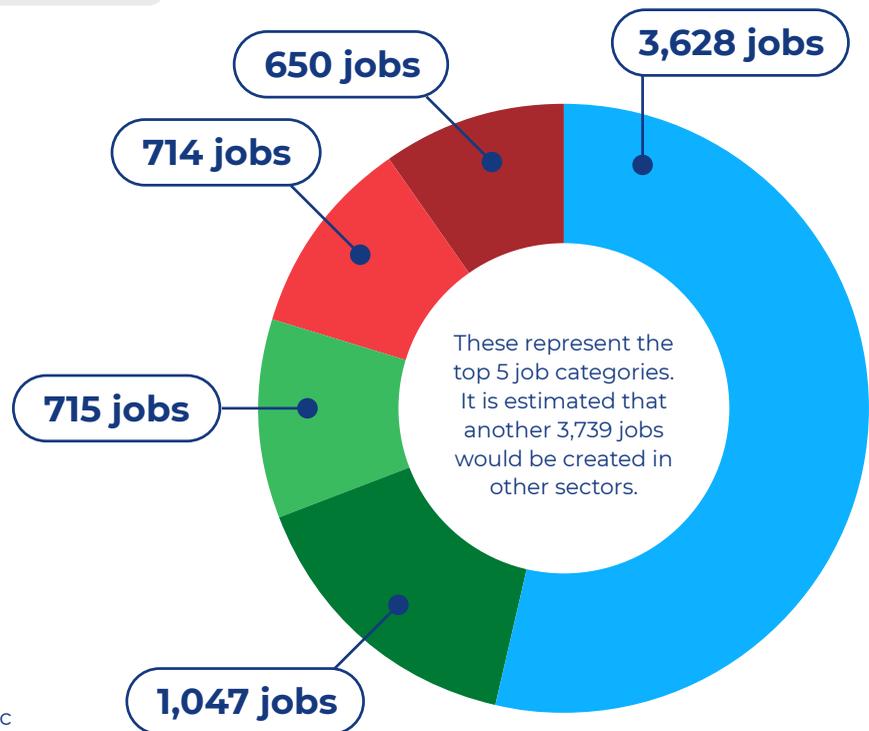


In PA, every **\$1.0 billion** invested in bridge replacement or rehabilitation creates **10,493 jobs** and generates **\$2.2 billion** in business sales within our state's economy.

10,493 job-years is equivalent to a total of 10,493 years of individual employment over the life of the project.

Top Job Categories

- Construction
- Professional, scientific, and technical services
- Health care and social assistance
- Retail trade
- Durable goods manufacturing



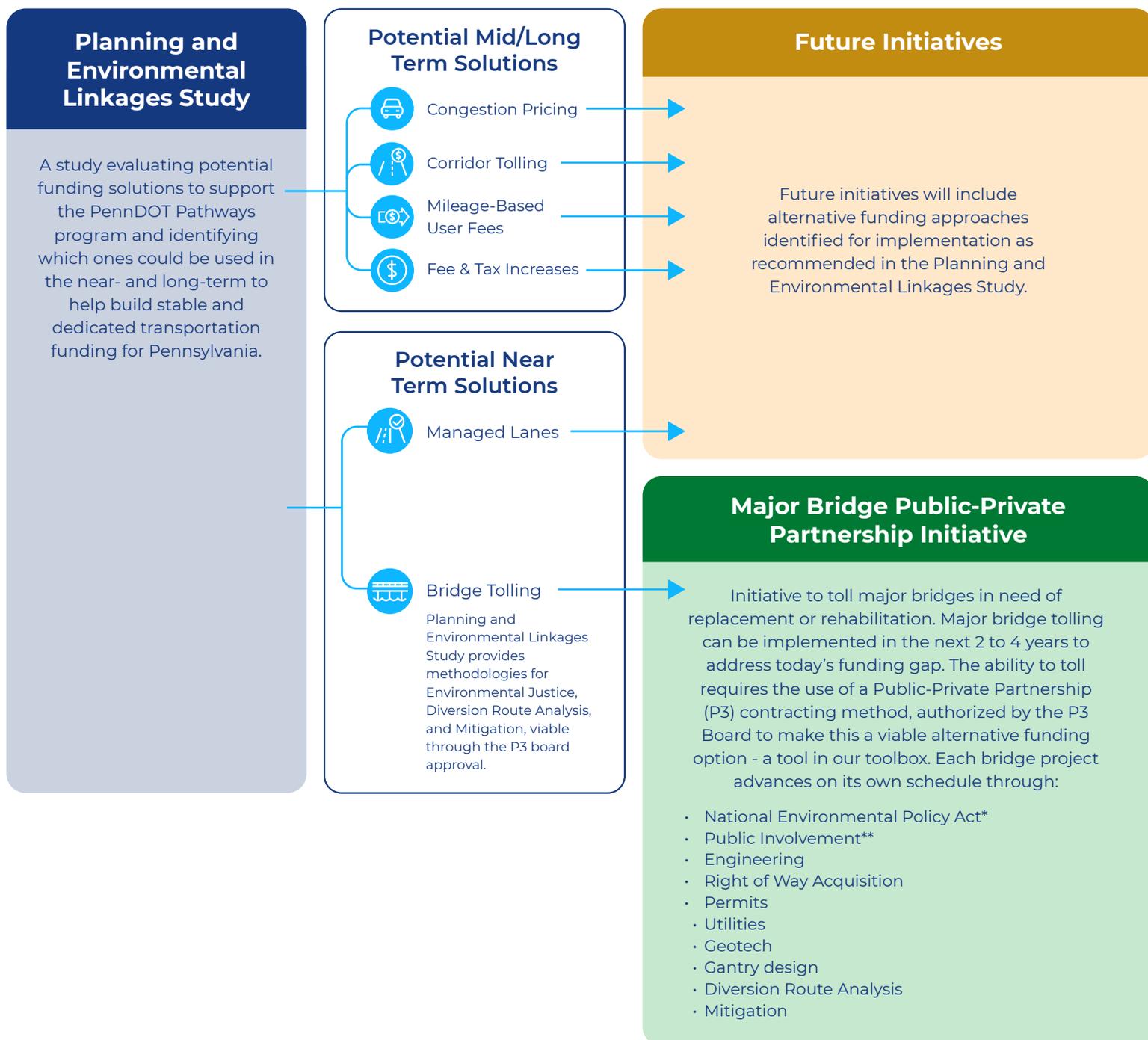
Calculations based on U.S. Bureau of Economic Analysis RIMS II multiplier data.

PennDOT Pathways Program

To support PennDOT Pathways, an alternative funding Planning and Environmental Linkages (PEL) study was conducted to identify near- and long-term funding solutions and establish a methodology for their evaluation. One of the early findings of the PEL study is that bridge tolling of major bridges in need of replacement or rehabilitation could be a viable near-term solution. To advance this funding alternative, PennDOT is simultaneously pursuing the first initiative of the PennDOT Pathways Program: The Major Bridge P3 Initiative.

PennDOT Pathways

A long-term program to analyze and implement new future-focused sources of funding for our transportation system that could better serve our communities and all Pennsylvanians for the next generation.



*National Environmental Policy Act required public involvement

**Required Planning Study Public Involvement

Our Proposed Immediate Solution

Bridge Tolling

Tolling is proven successful in the US:

129 tolling operators (agencies)

\$22B

in revenue generated in the US from toll facilities each year (2019)

346 toll facilities nationwide

195 roads

137 bridges

15 tunnels

This is a solution that can be implemented quickly. Why...

- ✓ E-ZPass and toll collection systems already exist
- ✓ We are authorized under current federal and state laws
- ✓ We can implement within 2-4 years
- ✓ Public-Private Partnerships can accelerate project delivery



Pennsylvania Turnpike Toll

Bridge Tolling: A Closer Look

How it works

1

Tolling equipment installed over the roadway, recording tolls electronically without a driver having to slow down.



2

Tolls are collected through E-ZPass and Toll by Plate, by the Pennsylvania Turnpike Commission, and sent to PennDOT.



3

PennDOT uses the revenue to pay for the bridge replacement or rehabilitation and continued maintenance of the facility. This also means more funding will be available for other projects statewide.



Benefits



Creates a dedicated funding source for that bridge, including costs of construction, regular maintenance and operations

Avoids the reallocation of traditional funding away from other local/regional projects

Only those that use the bridge pay for it, including out-of-state travelers that may not have purchased gas in the state and don't pay license and registration fees

The interstate system in Pennsylvania carries 25 percent of our traffic and serves as the economic backbone for many communities as well as the Northeastern portion of the US. By investing in our infrastructure, we will enable Pennsylvania to remain economically viable into the future

For every \$1 billion of investment in our highways and bridges, we generate 10,493 jobs and additional economic output of \$2.2 billion for our economy

Challenges

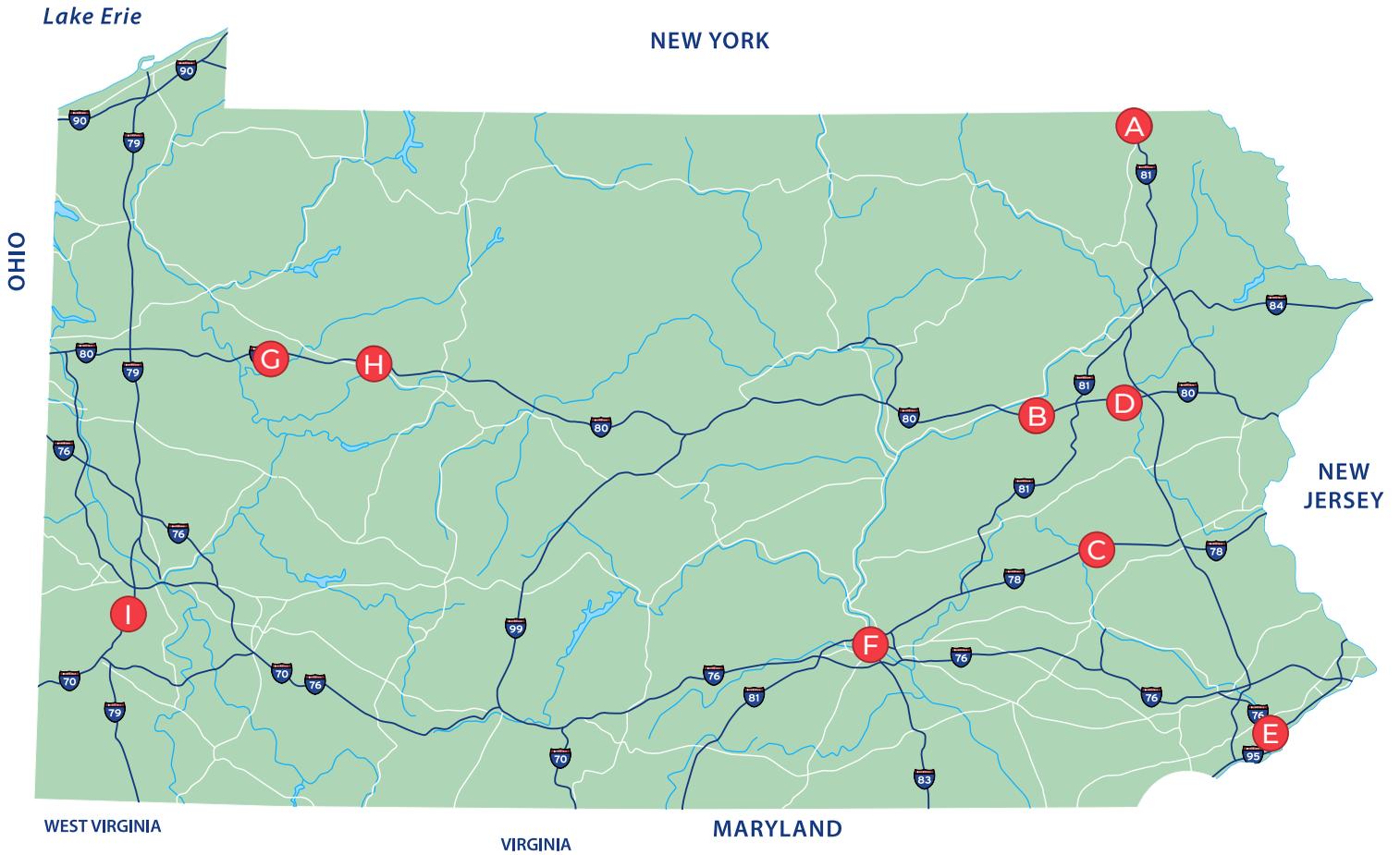


Drivers may avoid tolls

Potential for impacts to local communities

Perception of unfairness by users living/working near toll bridges

Candidate Bridge Projects



PennDOT District	Bridge Project	Year(s) Built
A 4	I-81 Susquehanna Project	1961
B 4	I-80 Nescopeck Creek Bridges	1965
C 5	I-78 Lenhartsville Bridge Replacement Project	1955
D 5	I-80 Over Lehigh River Bridge Project	1965
E 6	I-95 Girard Point Bridge Improvement Project	Late 1960s-1970s
F 8	I-83 South Bridge Project	1960
G 10	I-80 Canoe Creek Bridges	1966
H 10	I-80 North Fork Bridges Project	1962
I 11	I-79 Widening, Bridges and Bridgeville Interchange Reconfiguration	1965

How the Bridges Were Chosen

The candidate bridges being considered for tolling through the Major Bridge P3 Initiative were selected based on the following criteria:



Located on the interstate or expressway



Structures of significance based on size, location and cost to replace or rehabilitate



Structural conditions that warrant timely attention to enhance safety and avoid disruption and community impacts if closure or weight restrictions were imposed



Geographic balance throughout the state



Can begin construction in two to four years for near-term benefit



Revenue potential of the bridge location based on general traffic levels

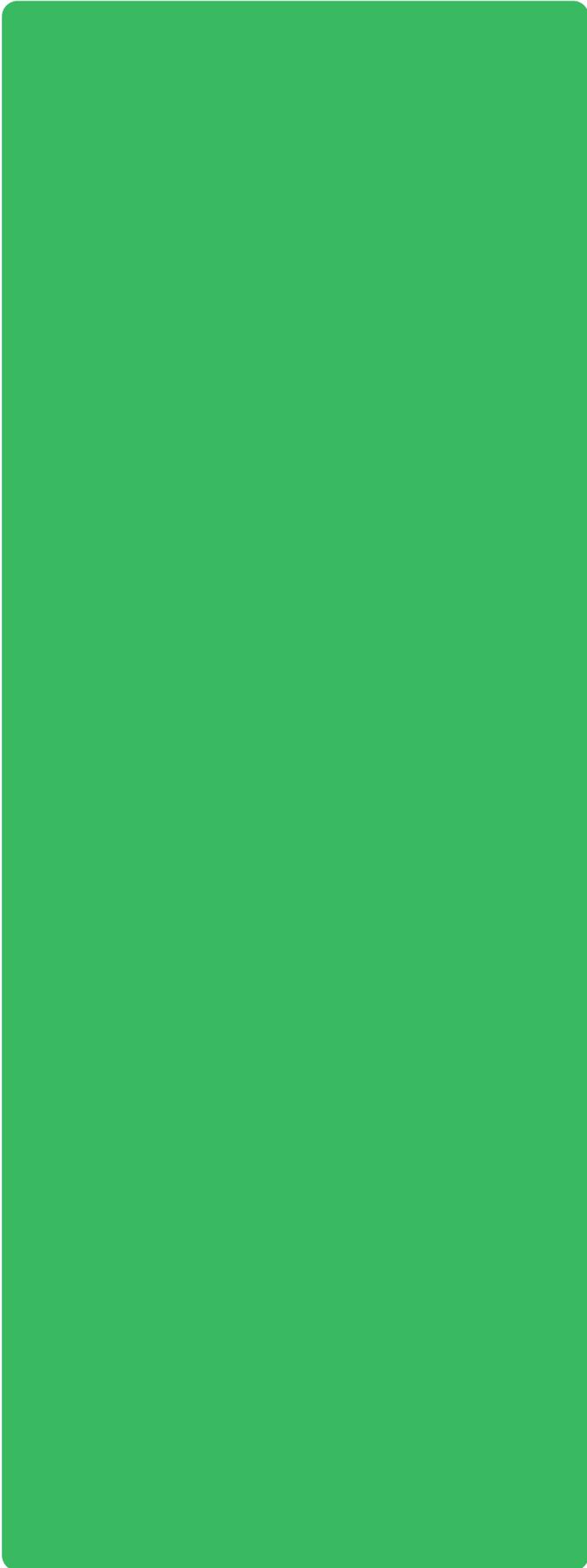
Next Steps for the Major Bridge P3 Initiative



PennDOT will evaluate these candidate bridges through individual environmental documents being prepared or re-evaluated for each bridge. Each project will advance with an evaluation on the impacts of tolling in the community to include:

- Impacts to minority and low-income populations
- Traffic diversion impacts from drivers avoiding the toll

Visit the candidate bridge website for more information on how to engage on a specific bridge project.



Visit [penndot.gov/funding](https://www.penndot.gov/funding) for up-to-date information about the PennDOT Pathways Program.

I-79 Widening, Bridges and Bridgeville Interchange Reconfiguration

www.penndot.gov/i79Bridgeville

Existing Bridge Statistics

User Profile:

Primarily commuters

Built:

1965

Last Rehabilitated:

1998

Existing Bridges

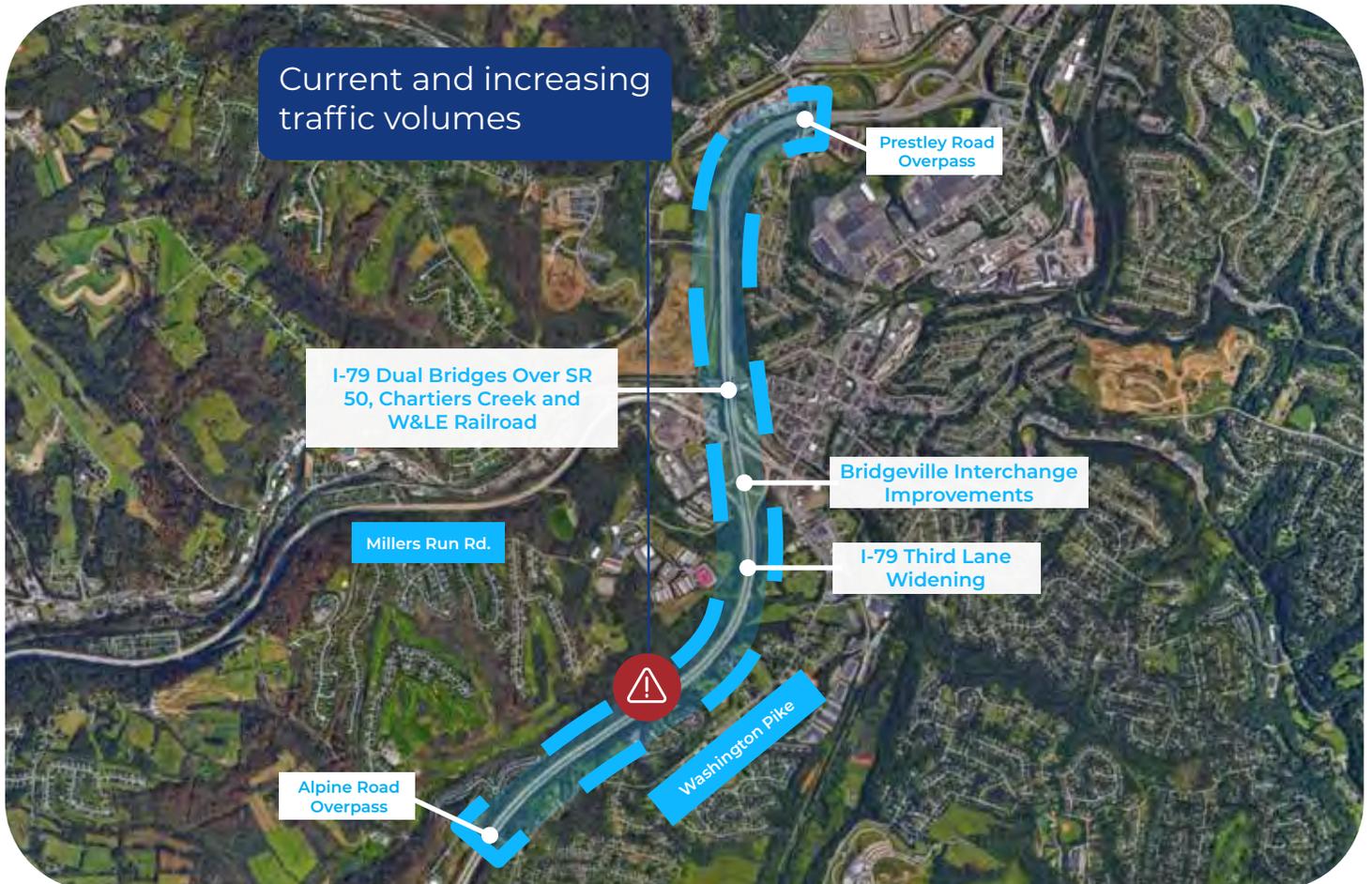
Average Daily Traffic

87,000 vehicles per day

Truck Traffic

12% of total vehicles

Why do we need to fix these bridges?





Why these bridges?

Overview

The I-79 Widening, Bridge and Bridgeville Interchange Reconfiguration is a three-mile interstate widening and rehabilitation project from Alpine Road to just before the Collier interchange and Prestley Road.

In addition to replacing the dual I-79 bridges over SR-50, the project will rehabilitate the existing structures over the W&LE Railroad and Chartiers Creek, make improvements to the I-79/SR-50 interchange and bring the roadway up to date in order to improve safety along the corridor.

Why

- ✓ The corridor is a major connection in the interstate system through western PA that links travelers, deliveries and more to the Pittsburgh area.
- ✓ Adding lanes in both directions will help manage traffic congestion in the corridor.
- ✓ Replacing and rehabilitating the bridges will increase their longevity and reduces the cost and frequency of future repairs.
- ✓ Improvements will improve safety in the corridor.

How will this benefit your region?



Accommodate future growth in traffic volumes



Benefits to freight travel



Reliable transportation — less frequent repairs and maintenance

Revenue generated from bridge toll goes back into this project.

Estimated Construction Cost: \$100 million – \$150 million

The I-79 Widening, Bridges and Bridgeville Interchange Reconfiguration is critical and needs to be completed. If the project is funded by bridge tolling, funds would be freed up to allow other critical projects to continue to move forward in the region.

PennDOT's Major Bridge P3 Initiative is anticipated to invest \$2.2 billion in the replacement and rehabilitation of major bridges across the state. Funding these bridges with tolls could free up enough funds to either:



Repave ~1,900 miles of highways

or



Build ~730 miles of new highway lanes

or



Replace ~6,600 miles of guiderail

I-80 Canoe Creek Bridges

www.penndot.gov/i80CanoeCreek

Existing Bridges

Existing Bridge Statistics

User Profile:

Mix of commuters and interstate traffic, including a high percentage of trucks

Construction Info:

Built in 1966, extended in 1985, has undergone multiple retrofits since 2013

Average Daily Traffic

30,119 vehicles per day (2025-projected)

Truck Traffic

50% of total vehicles

Why do we need to fix these bridges?

Aging, fracture-critical bridge structures

Need for design improvements



Increased frequency of inspections



Why these bridges?

Overview

The purpose of the I-80 Canoe Creek Bridges project is to provide a safe and reliable crossing of I-80 over Tippecanoe Road and Canoe Creek. While both bridges have been repaired several times throughout their lifespan, recent inspections show the westbound bridge is in poor condition, and the eastbound bridge is in fair condition. The project is intended to replace the existing structures and update the roadway within the project limits to meet current design criteria and improve safety along the corridor.

Why

-  The corridor is a major trucking route and part of a vital thoroughfare in rural western Pennsylvania.
-  Replacing the bridges will greatly increase their longevity and reduce the cost and frequency of future repairs.
-  Improvements will enhance safety and bring the corridor up to current design standards.

How will this benefit your region?

- 
Accommodate future growth in traffic volumes
- 
Benefits to freight travel
- 
Reliable transportation — less frequent repairs and maintenance

Revenue generated from bridge toll goes back into this project.

Estimated Construction Cost: \$90 million – \$105 million

The I-80 Canoe Creek Bridges project is critical and needs to be completed. If the Canoe Creek Bridges are funded by bridge tolling, funds would be freed up to allow other critical projects to continue to move forward in the region.

PennDOT’s Major Bridge P3 Initiative is anticipated to invest \$2.2 billion in the replacement and rehabilitation of major bridges across the state. Funding these bridges with tolls could free up enough funds to either:

- 
Repave ~1,900 miles of highways
- or
- 
Build ~730 miles of new highway lanes
- or
- 
Replace ~6,600 miles of guiderail

I-95 Girard Point Bridge Improvement Project

www.penndot.gov/i95GirardPoint



Existing Bridge

Existing Bridge Statistics

User Profile:

Primarily commuters

Built:

Late 1960s/Early 1970s

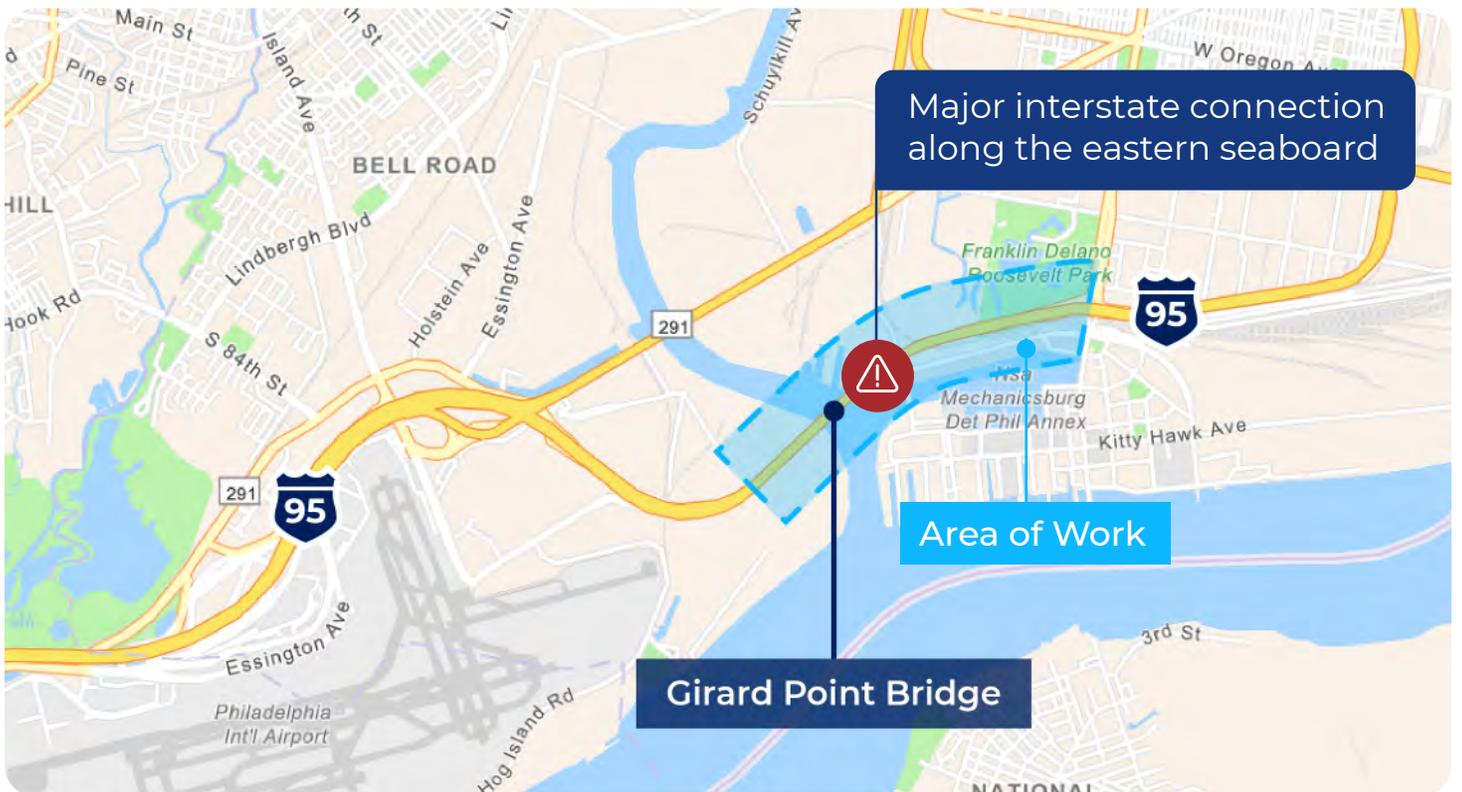
Average Daily Traffic

148,500 vehicles per day

Truck Traffic

6% of total vehicles

Why do we need to fix this bridge?





Why Girard Point Bridge?

Overview

The purpose of the I-95 Girard Point Bridge Improvement Project is to ensure that this bridge, which is an essential transportation facility for the Philadelphia metropolitan region, continues to provide a safe and reliable crossing over the Schuylkill River, and to improve the adjacent approach structures and pavement between Island Avenue and the Philadelphia Navy Yard.

The project is intended to provide a smoother driving experience, enhanced safety, improved access to the adjacent Philadelphia International Airport and Navy Yard and to keep the bridge in sound structural condition.

Why

- ✓ Major connection in the interstate system that links the Philadelphia International Airport and Navy Yard as well as Delaware County and Philadelphia.
- ✓ Connects travelers, deliveries and more throughout the eastern seaboard.
- ✓ Rehabilitation will increase the remaining service life of the structures and will improve the overall bridge condition rating.

Revenue generated from bridge toll goes back into the Girard Point Bridge.

Estimated Construction Cost: \$500 million – \$600 million

The I-95 Girard Point Bridge Improvement Project is critical and needs to be completed. If the Girard Point Bridge is funded by bridge tolling, funds would be freed up to allow other critical projects to continue to move forward in the region.

PennDOT's Major Bridge P3 Initiative is anticipated to invest \$2.2 billion in the replacement and rehabilitation of major bridges across the state. Funding these bridges with tolls could free up enough funds to either:

- Repave ~1,900 miles of highways
- or Build ~730 miles of new highway lanes
- or Replace ~6,600 miles of guiderail

I-78 Lenhartsville Bridge Replacement Project

www.penndot.gov/i78Lenhartsville

Existing Bridge Statistics

User Profile:

Mix of commuters and interstate traffic, including trucks

Built:

1955

Last Major Rehabilitation:

1985

Existing Bridge

Average Daily Traffic

44,228 vehicles per day (2021)

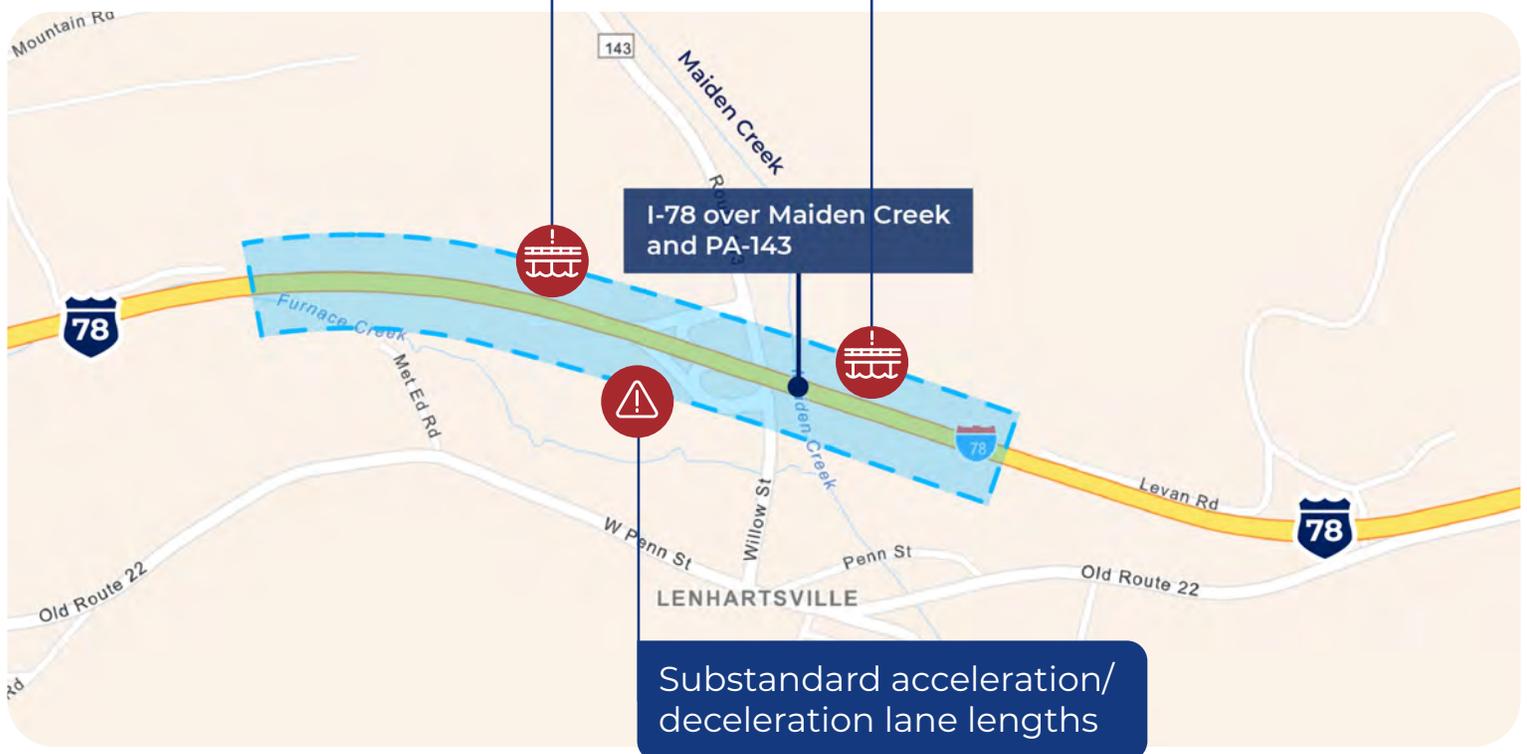
Truck Traffic

31% of total vehicles

Why do we need to fix this bridges?

Bridge width inconsistent with the rest of I-78 corridor

Aging bridge structure nearing the end of its serviceable lifespan





Why this bridge?

Overview

The purpose of the project is to replace the existing bridge on I-78 over Maiden Creek and PA-143 and to widen it to accommodate the addition of auxiliary lanes and full inside and outside shoulders on I-78 in each direction.

The project is intended to address the substandard I-78 westbound deceleration and I-78 eastbound acceleration lane lengths to and from the PA-143 interchange.

Why

- ✓ This portion of the I-78 corridor is a vital east/west trucking route through Pennsylvania.
- ✓ Replacing the bridge will greatly increase its longevity and reduce the cost and frequency of future repairs.
- ✓ Improvements to the bridge and acceleration and deceleration lanes will improve safety along the corridor.

How will this benefit your region?

- Accommodates current and future traffic volumes
- Supports freight travel
- Reliable transportation — less frequent repairs and maintenance

Revenue generated from bridge toll goes back into this project.

Estimated Construction Cost: \$40 million – \$50 million

The I-78 Lenhartsville Bridge Replacement Project is critical and needs to be completed. If the Lenhartsville Bridge is funded by bridge tolling, funds would be freed up to allow other critical projects to continue to move forward in the region.

PennDOT’s Major Bridge P3 Initiative is anticipated to invest \$2.2 billion in the replacement and rehabilitation of major bridges across the state. Funding these bridges could free up enough funds to either:

- Repave ~1,900 miles of highways
- or
- Build ~730 miles of new highway lanes
- or
- Replace ~6,600 miles of guiderail

I-80 Nescopeck Creek Bridges

www.penndot.gov/i80Nescopeck

Existing Bridge Statistics

User Profile:

Mix of commuters and interstate traffic, including trucks

Built:

1965

Last Repaired:

2005

Existing Bridges

Average Daily Traffic

33,000 vehicles per day (2019)

Truck Traffic

36% of total vehicles

Why do we need to fix these bridges?

Aging bridge structures nearing the end of their serviceable lifespan





Why these bridges?

Overview

The purpose of the I-80 Nescopeck Creek Bridges project is to provide a safe and reliable crossing over Nescopeck Creek. The project will replace and widen the bridges to provide wider shoulders that meet current standards and accommodate and facilitate future maintenance activities on the bridge.

Once complete, the new bridges will improve traffic flow, extend the life of existing infrastructure and enhance traffic safety.

Why

- ✓ The corridor is part of a major trucking route through eastern Pennsylvania.
- ✓ Replacing the bridges will greatly increase their longevity and reduce the cost and frequency of future repairs.
- ✓ Widening the bridges will allow future inspections to take place in the shoulders, reducing short-term traffic impacts.

How will this benefit your region?

- Accommodate future growth in traffic volumes
- Benefits to freight travel
- Reliable transportation — less frequent repairs and maintenance

Revenue generated from bridge toll goes back into the I-80 Nescopeck Creek Bridges.

Estimated Construction Cost: \$30 million – \$40 million

The I-80 Nescopeck Creek Bridges are critical and needs to be completed. If the Nescopeck Creek Bridges are funded by bridge tolling, funds would be freed up to allow other critical projects to continue to move forward in the region.

PennDOT’s Major Bridge P3 Initiative is anticipated to invest \$2.2 billion in the replacement and rehabilitation of major bridges across the state. Funding these bridges with tolls could free up enough funds to either:

- Repave ~1,900 miles of highways
- or
- Build ~730 miles of new highway lanes
- or
- Replace ~6,600 miles of guiderail

I-80 North Fork Bridges Project

www.penndot.gov/i80NorthFork



Existing Westbound Bridge

Existing Bridge Statistics

User Profile:

Mix of commuters and interstate traffic, including a high percentage of trucks

Built:

1962

Last Rehabilitated:

2013

Average Daily Traffic

30,897 vehicles per day (2026-projected)

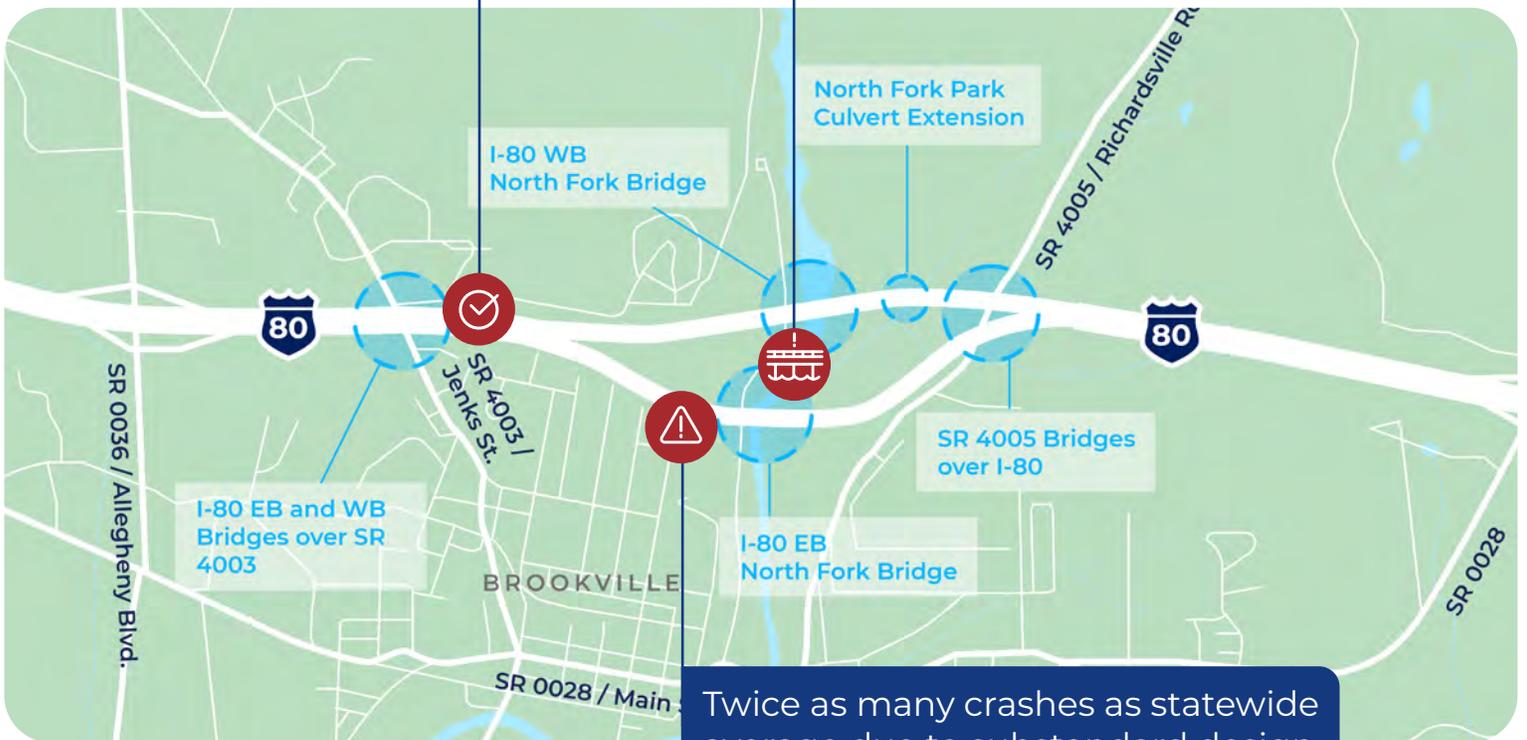
Truck Traffic

44% of total vehicles

Why do we need to fix these bridges?

Need for design improvements

Aging, fracture-critical bridge structures



Twice as many crashes as statewide average due to substandard design



Why these bridges?

Overview

The purpose of the project is to provide safe, efficient and effective crossings of I-80 over North Fork Redbank Creek and Water Plant Road. Both bridges have problematic fatigue details which have received multiple retrofits during the service lives of the structures. Both bridges are reaching the end of their serviceable lifespan. This section of I-80 has a posted speed limit of 70 mph, and many crashes – twice the statewide average – occur on the eastbound bridge due to a substandard curve on its western approach.

Why

-  The corridor is a major trucking route and part of a vital thoroughfare in rural western Pennsylvania.
-  Replacing the bridges will greatly increase their longevity and reduce the cost and frequency of future repairs.
-  Realigning the bridges will improve safety by bringing the bridge design up to current design standards, reducing the number of crashes in the corridor.

How will this benefit your region?



Accommodate future growth in traffic volumes



Benefits to freight travel



Reliable transportation — less frequent repairs and maintenance

Revenue generated from bridge toll goes back into this project.

Estimated Construction Cost: \$165 million – \$185 million

The I-80 North Fork Bridges Project is critical and needs to be completed. If the North Fork Bridges are funded by bridge tolling, funds would be freed up to allow other critical projects to continue to move forward in the region.

PennDOT's Major Bridge P3 Initiative is anticipated to invest \$2.2 billion in the replacement and rehabilitation of major bridges across the state. Funding these bridges with tolls could free up enough funds to either:



Repave ~1,900 miles of highways

or



Build ~730 miles of new highway lanes

or



Replace ~6,600 miles of guiderail



Existing Bridges

Existing Bridge Statistics

User Profile:

Mix of commuters and interstate traffic, including a high percentage of trucks

Built:

1961

Rehabilitated:

1979, 1993, 2006

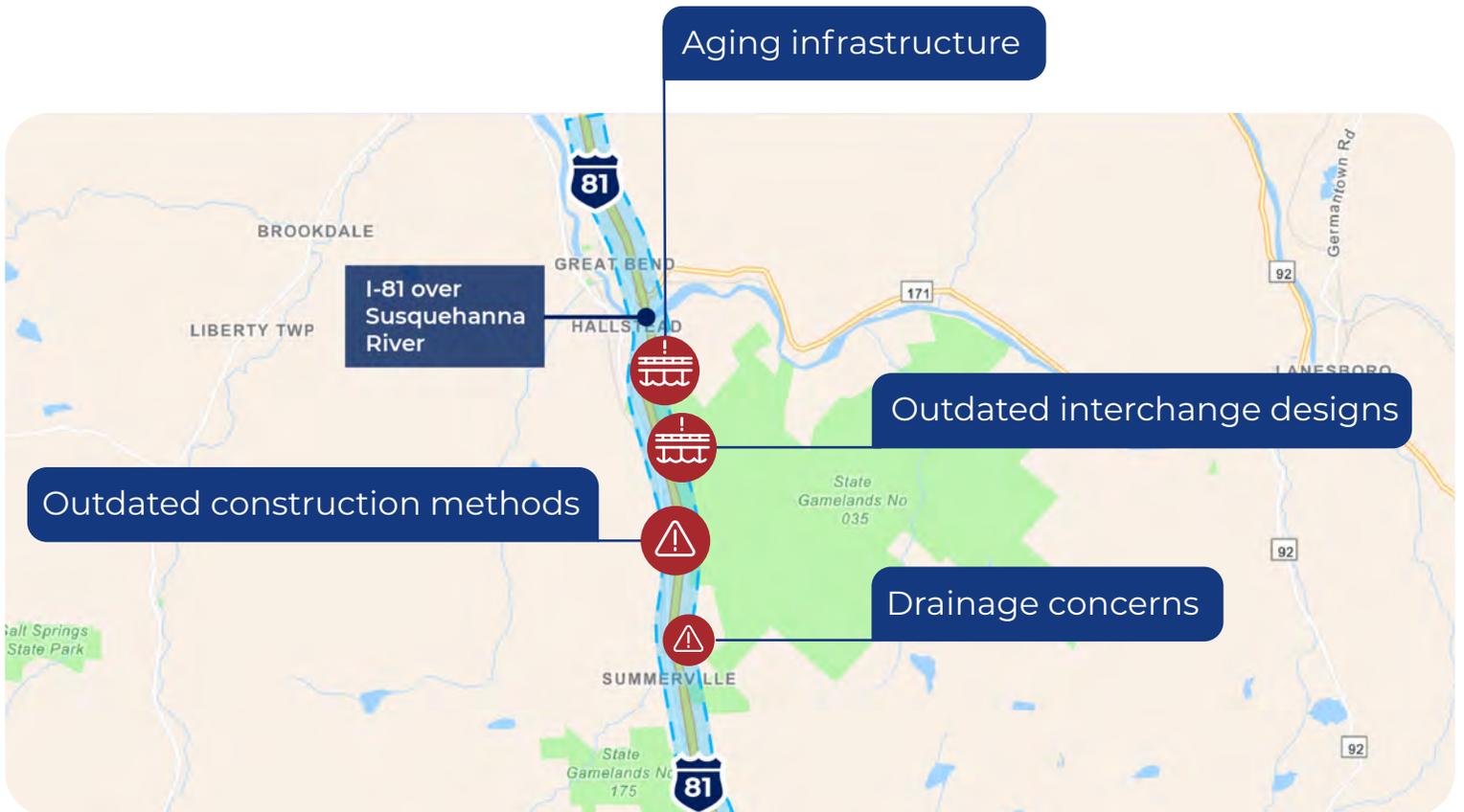
Average Daily Traffic

27,000 vehicles per day (2017)

Truck Traffic

41% of total vehicles

Why do we need to fix these bridges?





Why these bridges?

Overview

The purpose of the I-81 Susquehanna Project is to address aging pavement and infrastructure along I-81 including the bridge over the Susquehanna River, and to lengthen on and off ramps to meet current interstate design standards and improve safety. The project involves a number of construction activities, including repaving all roadway in the corridor; replacing five dual bridge structures, including the bridges over the Susquehanna River and one overpass structure; replacing the drainage system; replacing all guide rails, barriers and signage in the corridor; and construction work on Susquehanna Street, PA-171 and PA-1029 (Randolph Road).

Why

-  This portion of the I-81 corridor is a crucial trucking route in eastern Pennsylvania, connecting the state with much of the eastern seaboard.
-  Replacing the Susquehanna River Bridges will greatly reduce the cost and frequency of future repairs.
-  Updating the roadway and interchange design will enhance safety throughout the corridor.

How will this benefit your region?



Accommodates current and future traffic volumes



Supports freight travel



Reliable transportation — less frequent repairs and maintenance

Revenue generated from bridge toll goes back into the Susquehanna Project.

Estimated Construction Cost:

\$175 million – \$200 million

The I-81 Susquehanna Project is critical and needs to be completed. If the Susquehanna Project is funded by bridge tolling, funds would be freed up to allow other critical projects to continue to move forward in the region.

PennDOT's Major Bridge P3 Initiative is anticipated to invest \$2.2 billion in the replacement and rehabilitation of major bridges across the state. Funding these bridges could free up enough funds to either:



Repave ~1,900 miles of highways

or



Build ~730 miles of new highway lanes

or



Replace ~6,600 miles of guiderail

I-80 over Lehigh River Bridge Project



www.penndot.gov/i80LehighRiverBridge

Existing Bridges

Existing Bridge Statistics

User Profile:

Mix of commuters and interstate traffic, including a high percentage of trucks

Built:

1965

Average Daily Traffic

27,000 vehicles per day

Truck Traffic

44% of total vehicles

Why do we need to fix these bridges?

The purpose of the I-80 over Lehigh River Bridge Project is to address the deterioration of the aging bridge structures and thereby provide safe and structurally sufficient bridges that will provide connectivity for interstate travelers, commuters, commercial users, emergency services, tourists and local residents. The project will replace the aging bridges with wider structures; increase the length of the eastbound on-ramp auxiliary lane, the height of the bridges' barriers and the width of the shoulders to meet current interstate design standards; and improve safety in the corridor.





Why replace the I-80 over Lehigh River Bridges?

Rehabilitate

- ✓ Addresses some structural deficiencies
- ✗ Does not significantly extend service life of the bridges as they will remain fracture critical
- ✗ Does not improve the substandard shoulder widths and acceleration lane length
- ✗ Requires long-term lane closures on I-80 during construction
- ✗ Has shorter life span and higher life-cycle costs compared to Replacement alternative

Replace

- ✓ Meets the project's Purpose and Need
- ✓ Brings bridge design up to current design standards
- ✓ Provides shoulder widths and on-ramp acceleration length that meet current design criteria
- ✓ Minimizes durations of lane closures during construction
- ✓ Provides the longest anticipated life span (100 years) compared to Rehabilitation alternatives (10-25 years)

How will this benefit your region?

- Accommodate future growth in traffic volumes
- Benefits to freight travel
- Reliable transportation — less frequent repairs and maintenance

Revenue generated from bridge toll goes back into this project.

Estimated Construction Cost: \$47 million - \$52 million

The I-80 over Lehigh River Bridge Project is critical and needs to be completed. If the bridges over the Lehigh River are funded by bridge tolling, funds would be freed up to allow other critical projects to continue to move forward in the region.

PennDOT's Major Bridge P3 Initiative is anticipated to invest \$2.2 billion in the replacement and rehabilitation of major bridges across the state. Funding these bridges with tolls could free up enough funds to either:

- Repave ~1,900 miles of highways
- or Build ~730 miles of new highway lanes
- or Replace ~6,600 miles of guiderail

I-83 John Harris Memorial (South) Bridge

www.penndot.gov/i83SouthBridge



Existing Bridge

Existing Bridge Statistics

Average Daily Traffic (ADT):

125,000 vehicles per day (2019)
16,000 freight traffic per day (2016)

User Profile:

Vital interstate link across the Susquehanna river. Combination of Harrisburg commuter traffic and through interstate traffic.

Built: 1960

Last Widened: 1982

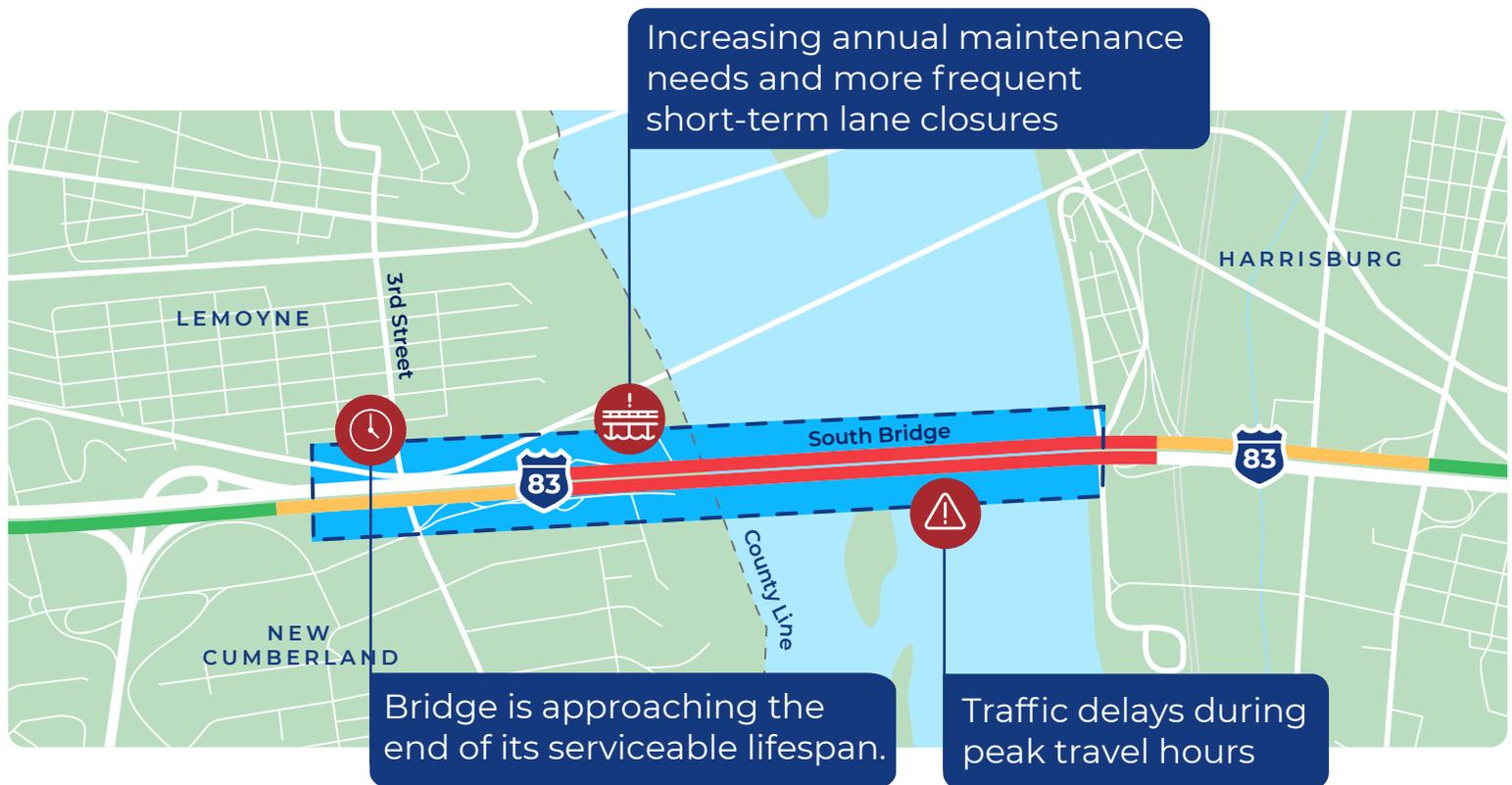
Bridge Structure:

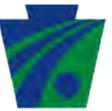
Two girder steel bridge supporting a ~3,300-foot long section of Interstate 83. Approaching the end of its serviceable lifespan.

Conceptual Construction Cost Estimate

\$500 – \$650 million

Why do we need to replace this bridge?





Why replace South Bridge?

Replace



- Low impact to traffic during construction by constructing replacement structure adjacent to current bridge.
- Meets future traffic demands by adding lanes.
- 100-year lifespan.

Rehabilitation



- Several multi-year, multiple lane closures for rehabilitation and repairs.
- Does not meet future traffic demands. No additional lanes would be added.
- Additional lifespan is uncertain, but would be substantially less than a replacement option and would eventually require a full replacement.
- Partial replacement of only deck and beams is not feasible. Would cause unacceptable traffic impacts with half of all lanes closed for 4+ years.

Do Nothing



- Impacts to traffic during frequent needed maintenance repairs.
- Does not meet future traffic demands.
- Bridge is approaching the end of its serviceable lifespan. Will need frequent and costly repairs. Potential to restrict freight traffic and implement lane closures or detours.

How will this benefit your region?

- Accommodate Future Growth in Traffic Volumes
- Benefits to freight travel
- Reliable Transportation — less frequent bridge repairs and maintenance

Revenue generated from bridge toll goes back into South Bridge.

South Bridge Estimated Construction Cost: \$500 million – \$650 million

Bottom line: The I-83 South Bridge Project is critical and needs to be completed. If the South Bridge is funded by bridge tolling, funds would be freed up to allow other critical transportation projects to continue to move forward in the region.

PennDOT’s Major Bridge P3 Initiative is anticipated to invest \$1.6 billion to \$2.2 billion in the replacement and rehabilitation of major bridges across the state. Funding these bridges with tolls could free up enough funds to either:

- Repave ~1,900 miles of highways
- or
- Build ~730 miles of new interstate lanes
- or
- Replace ~6,600 miles of guiderail